

The Project Gutenberg EBook of Twilight And Dawn, by Caroline Pridham

Copyright laws are changing all over the world. Be sure to check the copyright laws for your country before downloading or redistributing this or any other Project Gutenberg eBook.

This header should be the first thing seen when viewing this Project Gutenberg file. Please do not remove it. Do not change or edit the header without written permission.

Please read the "legal small print," and other information about the eBook and Project Gutenberg at the bottom of this file. Included is important information about your specific rights and restrictions in how the file may be used. You can also find out about how to make a donation to Project Gutenberg, and how to get involved.

\*\*Welcome To The World of Free Plain Vanilla Electronic Texts\*\*

\*\*eBooks Readable By Both Humans and By Computers, Since 1971\*\*

\*\*\*\*\*These eBooks Were Prepared By Thousands of Volunteers!\*\*\*\*\*

Title: Twilight And Dawn

Author: Caroline Pridham

Release Date: May, 2005 [EBook #8156]  
[This file was first posted on June 22, 2003]

Edition: 10

Language: English

Character set encoding: US-ASCII

\*\*\* START OF THE PROJECT GUTENBERG EBOOK, TWILIGHT AND DAWN \*\*\*

E-text prepared by Project Gutenberg Distributed Proofreaders

TWILIGHT AND DAWN

OR

SIMPLE TALKS ON THE SIX DAYS OF CREATION

by

Caroline Pridham

(Mrs. L. G. Wait)

"KNOWN UNTO GOD ARE ALL HIS WORKS FROM THE BEGINNING OF THE WORLD."

"THE LORD SHALL REJOICE IN HIS WORKS."

"HIS TENDER MERCIES ARE OVER ALL HIS WORKS."

CONTENTS.

GOD'S BOOK

"IN THE BEGINNING": CREATION

RUIN AND DARKNESS

FIRST DAY. LIGHT

SECOND DAY. THE OCEAN OF AIR

THIRD DAY. THE WORLD OF WATER

" " THE EARTH BENEATH

" " THE GREEN EARTH

FOURTH DAY. SUN, MOON, AND STARS

STORY OF A DEAF BOY WHO HEARD THE SUN PROCLAIM THE GLORY OF GOD

THE STONE BOOK

FIFTH DAY. "THE MOVING CREATURE THAT HATH LIFE"

" " "FOWL OF THE AIR, AND FISH OF THE SEA"

" " FLYING FOWL

" " CREEPING THINGS

SIXTH DAY. THE ANIMAL WORLD

" " THE CROWN OF GOD'S CREATION

"Everywhere, everywhere  
A tale is told to me--  
It is told in the sunny air,  
It is told on the sparkling sea.

"It is told in the forest brakes,  
It is told on the purple hills,  
By the silent mountain lakes,  
By the singing and leaping rills.

"In the meadows that stretch away  
As a sea of golden green,  
With hedges of sweet white may  
And the reedy brooks between.

"Where I wander and run and rest,  
The tale is told to me,  
The sweetest tale and the best  
Of all the tales that be.

\* \* \* \* \*

"The tale is the tale of Jesus;  
It is told in heaven above,  
On the sea and the moors and the mountains,  
In language of all the peoples,  
The speech of love.

"The morning star and the dayspring,  
The sun and the cloud and the shower,  
The grass and the rose and the cedar,  
His glory and love are telling  
From hour to hour.

"The birds in the green wood singing,  
The sea that is wide and deep,  
The sheep in the folds of the mountains,  
The corn in the golden valleys,  
And all beside.

"All round me are glorious pictures  
Of him who has made them fair;  
Through the long bright day I can see Him,  
And I fear not the silent darkness,  
For He is there,"

--FRANCES BEVAN.

Taken, by permission, from *\_Hymns by Ter Steegen and Others\_* Second series.

#### INTRODUCTORY.

Ten years have passed since this book was first published, and in issuing a third edition it seems desirable to say a few words as to the object with which it was written, and to explain why some additions and alterations have been made.

The earlier chapters remain pretty much as they were, but the latter have been recast; and the writer's original endeavour to show that the Story of Creation is not the Story of Evolution, as set forth in many attractive but misleading books for the young, has been more constantly kept in view.

It is hoped that by this means the end sought may be better reached, and that the young readers may be furnished with the truth before they meet with false teaching on this important point. The mind which has been carefully grounded in what is true may confidently be expected to detect and refuse what is erroneous, however fair may be its show; and if the need for early training on the lines marked out for us in Scripture was apparent some years ago, how much more imperative is it now, when the authority of God and of His Word is questioned on every hand?

It has been argued, with some reason, that the early chapters of these "Simple Talks" are "too childish" when compared with the latter part of the book; but it may be said in excuse for this seeming inconsistency that the wish of the writer was to furnish assistance to mothers and those who train young children. She therefore began at the beginning, intending the early chapters to be read aloud, with additions and omissions, as the young listeners were "able to bear." These chapters, therefore, are full of repetitions, of which the young mind does not weary, but which are necessary as long as it can only receive "here a little and there a little," without overstrain.

The later chapters will be found more suited to children of larger growth, who will be able to enjoy reading for themselves, without needing the "line upon line and precept upon precept," apart from which it is vain to attempt to teach the little ones.

How imperfectly the work is done will be manifest to those who know anything of the subjects, which are touched upon rather than explained. The difficulty of deciding how much to tell, and how much to leave untold, has sometimes made the writer's task seem an almost impossible one; but she has taken courage to go on by remembering a wise saying--that if we shrink from attempting any little work which comes in our way from the fear of making mistakes, it is easy to make the great mistake of doing nothing at all.

If what has been a labour of love to the writer should be of some interest

and profit to readers, young or old, that labour will be amply repaid.

The book is now sent forth again, with prayer that He who said, "Suffer the children to come unto Me," and who "took them up in His arms, put His hands on them, and blessed them," may be pleased to use it in His service and for His glory.

EVESHAM.

TWILIGHT AND DAWN.

GOD'S BOOK.

"\_As the cold of snow in the time of harvest, so is a faithful messenger to them that send him: for he refresheth the soul of his masters.\_"--PROVERBS xxv. 13.

"\_The words of the Lord are pure words: as silver tried in a furnace of earth, purified seven times.\_"--PSALM xii. 6.

I wonder whether you are as fond of asking questions as I was long ago--so fond that I did not mind asking them when I well knew I could get no answers, because I spoke to things, not to people who could speak to me again?

Still, if any mere thing could be supposed capable of answering for itself, I think a book might; and so perhaps as you take this book of mine into your hand, and run away to some quiet place to have a look at it, you may be taking it into your confidence, and asking it some such questions as these:

(\_a\_) What are you all about? Are you a lesson-book?

(\_b\_) Have you any stories--real stories, not made-up ones?

(\_c\_) Any pictures?

(\_d\_) I wonder whether I shall like you? Does the person who made you like children, and know the sort of things they care for?

Now before you put any more questions to my book, I will answer for it; and that we may not miss any, we will call them questions (\_a\_), (\_b\_), (\_c\_), (\_d\_), and answer one at a time.

Your first question (\_a\_)--the first part of it at least--is what grown people as well as children have a right to ask of a book; and it would be a poor thing for the book to answer, "Oh, I am about nothing in particular! I can't quite tell you why I was written." But most books are about something

in particular, and what that is you can best find out by reading them right through; for many people miss their way in a book by beginning at the end and travelling backwards, or beginning about the middle, and not knowing whether to go backwards or forwards. So you see I want you to find out for yourself the answer to question (\_a\_), only I will just say that the book is mostly about your own dwelling-place. I do not mean your body, though that is, in one sense, your dwelling-place; neither do I mean your own home, nor even that part of England where you were born. By your own dwelling-place I mean this wonderful world which you see all around you, where God has made so much for you to see and enjoy; and learn about too, that you may use and enjoy it better.

[Illustration: GOOD-BYE TO THE SWALLOWS]

So you will find in this book something about the firm ground upon which you trod as soon as you were old enough to run about the fields and pick the daisies. Something too about the blue sky, where the lark sings and the swallows fly; and the great wide sea, where the fishes live; and a little about what the Bible tells us of how all that you see around you came to be; long, long ago, when everything was quite new and beautiful, and God said that all that He had made was "very good."

"Then it is a lesson-book?" I hear you say.

Yes, in one way, and yet not quite all lessons, for you will find some stories here too.

And now I must answer the (\_b\_) question about these same stories, for I want you to know, before you begin to read them, that they are all true, and there is no pretending or making-up about them.

Question (\_c\_), about the pictures, you can soon answer for yourself; so now I have only the (\_d\_) question to answer, and I can only say for my book, that I do not know whether or not you will care for it; but I do know that the person who made it loves children, and very much likes teaching them and talking to them. And that you may better understand that I know something about children, I will explain that, though I am only talking to you just now, I shall tell you in this book the very same things which I told to some children who came every morning to do their lessons at my house, three or four years ago--at least, I will write down for you all I can remember of the talks these children and I had together, and I will tell you the same true stories which I told them. I used to ask them to give me their ears, and I must ask you to give me your eyes; for writing is different from talking, is it not? You cannot look up in my face and ask me questions as my children did; and when I ask you a question, I cannot hear you answer, but am obliged to fancy what you would be likely to say. Still, I think we shall be friends, and get to know each other a little, even by means of this dumb-show talk, as I speak to you with my hand and you listen to me with your eyes.

And now I want to tell you about my children. It was a beautiful morning in September when I opened the schoolroom door, and found them, all the seven, sitting round the table, waiting to begin school again, for the long summer

holidays were over. I was afraid they would think it rather hard to sit still and do lessons, especially when the sun was shining brightly and it was as pleasant a day as could be out of doors; but as I looked at their bright faces, I thought they did not seem as if they minded coming back to school so very much after all.

I wonder what you feel like, when the holidays are over and your little work-a-day world begins again? Does it seem too bad to be true? or are you just a tiny bit glad to have something that you really must do, instead of all play and no work? Do you know--and you remember I told you I knew children pretty well--I have actually met with girls, and boys too, who have sometimes, especially on a very wet day in the holidays, found this delightful having nothing to do all day long harder work than the most difficult of their lessons?

And now for the names of my children. You would like to know them, would you not? for they are real boys and girls, not children in a story book.

My eldest boy was Ernest, and he sat at the bottom of the table, opposite the place where I always sat, and where someone had put a chair for me. Next in age came Charlotte, Ernest's sister; and then Chrissie, the elder brother of Eustace and Dick. I put Sharley and Chrissie together, because they were both ten years old and did most of their lessons out of the same books. Next came another little pair: May, Ernest's younger sister, and Eustace. Last of all, the little ones: Ernest's youngest brother, Leslie, and Chrissie's youngest brother, Dick. These little boys were only six years old.

Now that you know the ages of my children you will be able to tell whether any of them were about your own age; perhaps you may be older than Chrissie and Sharley, or even Ernest, who was nearly twelve, but I am quite sure that if you are younger than any of my elder children, you will be able to understand some of the lessons which we had from the Bible every morning.

Before the holidays we had been reading in the New Testament, and had finished the Acts of the Apostles; and it was settled that when they came back to school we should read some of the Old Testament, and begin at the beginning. The children remembered this, and were just going to open their Bibles and find the first chapter of Genesis, when I said that I should like to ask them one question before a word was read.

I should like you, too, to think about it, and try to give an answer; for my question--

Why is the Bible different from any other book?

concerns you as well as the children of whom I asked it.

They all said at once that the Bible is different from every other book in the world because it is God's Book. Yes, that is the great difference; the Bible is God's own Book, in which He has spoken to us His own words, and it is the only Book in the world which tells us all the truth.

How wonderful it is to think of this, that every child who can read, and has a little Bible of his own, can learn what God has said!

Will you try to remember when you open that beautiful Bible, which was given you on your birthday, that there God is speaking--speaking to you just as much as if you were the only person in the world?

If you think of this it will make you very still and quiet, that you may hear what He says to you.

When we say that God has spoken to us, we mean that long ago He told those holy men whom He allowed to write His Book exactly how He would have them write. When you read in your Bible, you do not read what Moses and David wrote out of their own minds. God gave them His words to write for Him, so that we might know for certain, not what they thought God meant them to say, but what He really did say.

Do you understand this?

Perhaps not quite; so I will tell you a story to make it plainer.

I know a boy who is very fond of running errands, and a very useful boy he is. If I give him a message he is off like a shot, and back again with the answer almost before I know that he has gone. So willing and quick a messenger is Willie, that it is a pleasure to send him anywhere.

But there is just one thing that has sometimes hindered him from being a really good messenger. Can you guess what it is? You will soon find out if you remember that, besides being willing and quick, a messenger must deliver the exact message entrusted to him. He must give it just as it was given to him if he would deliver it faithfully.

Now Willie prefers to give his messages in his own way, and so, although he is willing and quick, he cannot always be relied on as a faithful messenger.

One day, when his mother said "Willie, run to the nursery and give Nurse a message for me," the little boy hardly waited to hear what the message was, but ran upstairs as fast as his feet could carry him. Very quickly back he came and went on with his play--I think he was just then building a fine house with wooden bricks. Now, as the message was an important one, his mother wished to be quite sure that it had been correctly delivered; so presently she said, "What did Willie say to Nurse?"

"The right thing," said he, going on with his building, quite unconscious that this was not enough for his mother, who must know exactly what Willie had told Nurse, or go upstairs to see whether she was doing what she had desired her to do.

You understand now, I am sure, that we could not be quite certain that we had God's message--and the Bible is a message or letter from God to us--we could not be sure that we had it right, if we did not know that He had given it to us in His own way and in His own words.



So, then, our question is answered. The Bible is different from any other book because it is God's Book, in which He speaks to us. Now I am going to ask you one more question.

If it is God who is speaking, and if He speaks to you, what must you do?

You must listen, not only with your eyes, when you read the words, or with your ears, when someone reads to you, but with your heart.

Do you remember what we are told in the Bible about a child to whom God once spoke? It was in the night that this boy heard God's voice calling him by his own name--the name which his mother had given him when he was a baby. Samuel had never heard the voice of God before, and he did not know who was speaking to him in the quiet night.

But he did what he was told to do by one who knew that God was calling him, and the next time the voice came he answered, "Speak, for Thy servant heareth."

Then, when God spoke again, he listened to the message which God gave him to give for Him.

How near God was to this child!

Yes, He was very near to Samuel as he slept; but He is as near to you, as you lie in your own bed at home. He keeps you safely all through the dark night: when you cannot even think about yourself He thinks about you and cares for you; and He speaks to you by His Holy Word just as much as if He called you by your own name.

Do not forget that it is really true that when you take God's Book into your hands, and open it, and listen with your heart, God is near you and speaks to you, your own self. For this reason, when we read the Bible, as the children said, "We must attend, or we shall not know what God has said."

And for another reason, too, we must attend: that is, because it is God who is speaking.

God's Word is the only thing in this world that is quite sure; but it is, because it has come straight from Him, and He is the God of truth.

God's Word can never pass away; for He has said that it endures for ever.

God's Word can speak, even to a child, and can make that child "wise unto salvation, through faith which is in Christ Jesus."

For it is of Jesus, the Son of God, that God has spoken to us in His book.

I think you will like this poem, which speaks of a time when the Bible was not only a rare, but in most countries a forbidden book, bought in secret, and read in fear by those to whom it became all the more precious because

it cost them so dear. We are told that at this time the actual cost of a Bible was L30, and that the wages of a labouring man were only 1-1/2d. a day; so that he would have to work fifteen years to pay for one copy of the Word of God!

"THE VAUDOIS TEACHER.

"Oh, lady fair, these silks of mine  
Are beautiful and rare;  
The richest web of the Indian loom,  
Which beauty's queen might wear.  
And my pearls are pure as thine own fair neck,  
With whose radiant light they vie;  
I have brought them with me a weary way--  
Will my gentle lady buy?'

"And the lady smiled on the worn old man  
Through the dark and clustering curls  
Which veiled her brow, as she bent to view  
His silks and glittering pearls;  
And she placed their price in the old man's hand,  
And lightly turned away;  
But she paused at the wanderer's earnest call--  
'My gentle lady, stay!'

"Oh, lady fair, I have yet a gem  
Which a purer lustre flings  
Than the diamond flash of the jewelled crown  
On the lofty brow of kings:  
A wonderful pearl of exceeding price,  
Whose virtue shall not decay;  
Whose light shall be as a spell to thee,  
And a blessing on thy way!'

"The lady glanced at the mirroring steel,  
Where her form of grace was seen,  
Where her eye shone clear and her dark locks waved  
Their clasping pearls between--  
'Bring forth thy pearl of exceeding worth,  
Thou traveller grey and old;  
Then name the price of thy precious gem,  
And my page shall count the gold.'

"The cloud went off from the pilgrim's brow,  
As a small and meagre book,  
Unchased with gold or gem of cost,  
From his folding robe he took;  
'Here, lady fair, is the pearl of price:  
May it prove as such to thee;  
Nay, keep thy gold; I ask it not,  
For the Word of God is free.'

"The hoary traveller went his way,  
But the gift he left behind  
Hath had its pure and perfect work  
On that high-born maiden's mind;  
And she hath turned from the pride of sin  
To the lowliness of truth,  
And given her human heart to God  
In its beautiful hour of youth."

J. G. WHITTIER

#### "IN THE BEGINNING": CREATION

"\_Thou, Lord, in the beginning hast laid the foundation of the earth; and the heavens are the works of Thine hands: they shall perish; but Thou remainest.\_"--HEBREWS i. 10.

To-day let us talk a little about the very first words which God has spoken to us in His Book. You would like to find them in your own Bible, I daresay.

"In the beginning God created the heaven and the earth."

And we will find one other verse, because it is the first verse of a chapter which also speaks of "the beginning."

"Doth not wisdom cry? and understanding put forth her voice?" (Prov. viii. 1).

Now that we have read these verses; I must tell you that Ernest and Chris and Charlotte and May used each to learn a verse for me every day, and say them in turn; indeed, they usually said two verses, for I liked them always to repeat along with the new verse the one they had said the day before, in order that they might not forget it. I am glad to tell you that the verses were generally learned so perfectly, and repeated so distinctly, that it was quite a pleasure to hear them; for even little May knew that if we repeat anything from God's Book we must be careful not to put in any words of our own. If we did, we should be like Willie, giving the message in our own way, should we not? Then, every one of God's words must be remembered, and none left out; not even a little word like "and" or "the," which perhaps would not very much matter if we were repeating merely what men had said.

Perhaps you may think this chapter about Wisdom was a difficult chapter for my boys and girls to learn, and not so interesting as some of those which you know. I will tell you the reason why I especially wished them to learn it; but I will first ask you to find in the New Testament three verses which also tell us of "the beginning"--

"In the beginning was the Word, and the Word was with God, and the Word was God.

"The same was in the beginning with God.

"All things were made by Him; and without Him was not anything made that was made" (John i. 1-3).

The "Word" is one of the names of the Lord Jesus Christ. It is a beautiful and wonderful name. Suppose you have been playing with something that has made your hands very dirty, and mother says, "Come to me, dear, and I will make them clean." Through mother's words you know what is in her heart; you know that she loves you, and wants you to be with her, and fit to be with her. So it is through the Word, the One who was with God in the beginning, the One by whom everything was made, that God has spoken to us so that we may know His thoughts about sin, which made us unfit to be with Him, and His feelings towards the men and women in the world, who are His creatures, and yet have tried to find happiness away from Him. But it was because the chapter, which my elder scholars were learning, speaks of the Lord Jesus by another wonderful and beautiful name that I wished them to learn it. He is called "Wisdom" not only in the Old Testament, where we are told in other verses of the same chapter (Prov. viii.) that He was "from the beginning" with God (vv. 22-31), but also in a letter which the apostle Paul wrote to some clever people who lived in Greece long ago he speaks of Him as "the power of God and the wisdom of God" (1 Cor. i. 24).

I can remember that we had a good deal of talk after we had read the verse, "In the beginning God created the heaven and the earth"--those few words, so quickly read, in which God has told us what the wisest man of all the wise men who ever lived could not have found out for us; for God alone can speak about what He did so very long ago, before the sun shone, or the grass and the trees grew, or the birds sang in the branches, or lambs played in the fields.

Did you ever think, as you watched the great sun going down behind the crimson clouds, that there was a day, long, long ago, when that sun, in all its glory, set for the first time?

I daresay you never thought of the beginning of the sun, or of the first time that it set, but were just pleased to see the sky so red and glowing, and sorry when the beautiful sunset colours faded and the clouds became cold and grey.

Or perhaps, as you have shaded your eyes from his noonday splendour, you may have remembered that it was God in heaven who made that wonderful sun to light up the sky, and that he has been shining down upon this earth ever since; but did you ever stop to ask such a question as this--

How long has that great sun, which is now above my head, been shining in the sky? Or, again, as he passed in glory out of sight, How many beautiful sunsets have there been since he first began to "rule the day" and to rise in the east and set in the west?

Ah! so long a time that no thought of ours could measure it; so many sunsets that we could never count them. All we can know about it is that there was a time, long, long ago, when the sun first set and a time when he rose upon the earth, which was then so beautiful--fresh from the hand of God.

This world of ours is a very old world, but there was a time when all was new; not only the sun and moon, but all that you see around you had a beginning--a birthday. There was a time when no such things were, and there was a time when they began to be. Now it is about this beginning that I want you to think a little.

[Illustration: "HOW PLEASANT THE LIFE OF A BIRD MUST BE!"]

As we open our eyes to-morrow morning and see the light come in at the window, let us thank God that He has made His sun to shine upon us, to send away the darkness and bring a new day. And as the light grows and grows, and we lie awake and listen to the morning songs of the thrushes and blackbirds and the chatter of the sparrows, do not let us forget that God gave its own sweet note to every one of those warblers, and that the air has been full of the songs of birds ever since the day, so long ago, when the first little lark flew up, up, up into the blue sky and sang its first song, so full of gladness. Then, as the pleasant sound of the lambs, bleating after their mothers, comes to us from the fields, let us remember there was a day when that sound, which you know so well, was heard for the first time; and as we go for our walk and look around us at the green fields and the trees with their leaves and blossoms, and then far away to where the strong mountains lift their heads against the sky, let us say to ourselves, "All these things, which seem as if they had been there always, had a beginning; there was a time when there were none of them, and then there came a time when they were there, for God had made them to be."

While we were talking about this, the elder children and I, the little boys were very quiet; but I was afraid it was all rather difficult for them, so I asked Leslie and Dick to tell me what we mean when we speak of the beginning of anything.

I forget whether I got the answer from them or from one of the elder ones, but I know I thought it a good answer when somebody said, "The beginning of a thing is the first of it."

Then we spoke about the beginning of the table at which we were sitting--I suppose we chose that to talk about because it was so close to us--how it was made of wood, and the wood was once a tree; and if it was an oak, that giant tree must have been long, long ago only a tiny acorn in its pretty green cup. Each of those children, too, as they sat round the table, had had a beginning. Have you ever thought of this? There was a time, not so very long ago, and yet you cannot remember it, when your life had not begun. And then your birthday came, the first of all the birthdays; that day when your dear father and mother thanked God for giving you to them to love and take care of, and everyone at home was so glad because God had sent a little child to the house; someone who had never been there before.

Just think, you were that little child; only a tiny thing, but as you opened your baby eyes to the light, and stretched out your little clasping fingers, your first cry, and every movement of your little body, showed that you were alive. Then, by-and-by, the nurse said, "Hush, baby is asleep!" and everyone moved about softly, so as not to wake the little creature, who had not been there yesterday, the baby whose life had just begun, the little traveller who had just started on its journey through time to the great eternity beyond.

But you knew nothing about this; only your mother knew, as she watched you in your sleep, that one more tiny vessel had been launched upon that stream which flows on, on, till it meets the ocean which has no shore--the time which never ends.

I remember, a very long time ago, how fond I used to be of making boats. Not far from where I lived a real ship was being built, and I used to watch how it was made, and think that when I grew up I should like above all things to be a shipwright, for I had heard someone say that was the name of the man who was building this beautiful vessel. Of course, the boats which my brother and I used to make were only toy boats--we generally made them of paper--but however small they were, we were very particular to give each of them at least three tall masts. Then, when it came to sailing them, we had to be content with any water we could find, and generally these three-masted vessels made very short voyages, from one side of a big tub to the other; and though, by rocking the tub, we used to manage to make pretty stormy weather for them, they generally reached the end of their voyage in safety. It was quite another thing when we set our vessels afloat upon what we thought a real river, like the Thames or the Severn; but it was only a brown stream, which, ran along the bottom of a meadow, and was crossed, not by a bridge, but by stepping-stones. Sometimes, on a lovely day in June, we were allowed to go down to our river, and we used to sit for hours among the flags which grew beside it, hidden by the tall reeds and the yellow flowers, making little green boats out of the broad leaves of the flags, while the sound of "Cuckoo, cuckoo" came from the orchard close by.

When we had made as many boats as we could carry, each with a curly-whirly bit of a leaf for its sail, we used to balance ourselves carefully on the stones--for we knew that if we got wet we should not be allowed to go to our river again--and launch our little fleet, one by one, on the brown water, and then eagerly watch each green vessel upon its course. We wanted them to sail across to the other side; but I need not tell you that the river water was very far from being so calm as the water in the tub, and I do not think many got safely over.

One little boat would start off very straight, and then suddenly stop because it had run against some hidden rock; the greater number, in spite of all our efforts to steer them, would get into the current, and so be carried down the stream out of our sight; while some at once turned on their sides, got filled with water, and became dismal wrecks.

I can remember well how happy we were in spite of all such disasters and losses!

But we should have been surprised indeed in those days if anyone had told us, as we launched our boats, and watched them sail away from land--to "America" or "India," or any of those far-away places where we used to pretend they were going--that we were like those boats of ours. And yet it would have been true, for we too had been launched; the voyage of life had begun for us; and every birthday that came found us a little farther from the place from whence we had started--a little nearer to the end of the voyage, the place whither we were bound. Yes, in this sense you and I and all the people in the world are voyagers on the stream of time. But this voyage of our life--how long will it be?

That is one of the things which no one can tell. God alone knows.

In one sense the story of your life may be soon told; your little voyage down the stream of time may be very short, and your boat may reach the great ocean of eternity before many birthdays have come and gone. But in another sense it is a story without an end; and this is what makes your beginning such a great thing to think of. It is a beginning which has no end; the part of you which is most really yourself, must live on always. You can never stop living for one moment; for there is on board your little boat a wonderful passenger. God has put into you a living soul, which can never die.

But how soon God may call that soul back to Himself, away from the body, where it lives now, who can tell?

I am just now thinking of some young voyagers whose passage from time to eternity was indeed short, but the story is so sad that I could not tell you about it if I did not remember what the Lord Jesus once said, when He was teaching His disciples. He called a little child to Him, and began to speak to them about such little children, and one of the things which He said was this, "The Son of man is come to save that which was lost" (Matt. xviii. 11). And again He said (you will find this verse in the same chapter), "It is not the will of your Father which is in heaven, that one of these little ones should perish."

Since even the very little children have gone astray from God, so that the Lord Jesus spoke of them as "lost" and "perishing," how could I tell you this story, if the Lord from heaven, He who called Himself the "Son of man" when He was here in this world, had not come to save that which was lost?

This is the sad, true story:

It was on a beautiful Monday morning, in the bright June weather, that the scholars belonging to a large Sunday-school in Ireland were travelling with their teachers and friends from the town where they lived to spend the day at a lovely place by the seaside. How proud and happy they were, all these boys and girls, as they marched through the town waving their flags and singing, and how much they had to say about the grand time they were going to have! You may be sure they liked a long holiday out of doors, with games and races, and buns and oranges, as much as you do, and so they got into the train in high glee.

But that train never reached the lovely place at the seaside. Before it had gone very far on its way there was a dreadful accident; some of the carriages were crushed and broken, as if they had been matchboxes, and many of those bright boys and girls were killed all in a moment--the short voyage of their life was over; oh, how soon! By-and-by some doctors came hurrying to the place where the ruined train lay, and began to look about to find those who might not be dead, only hurt. It was a sad sight they saw, and one they can never forget. While they were busy, giving help here and there, someone noticed two little ones, sitting on the green bank, beside the wreck of the train. A doctor went up to see if they were hurt. No, they were picking the daisies which grew among the grass; they were too young to understand what a dreadful thing had happened.

"Were you in the train, my dears?" said the kind doctor.

"Yes," said a little girl of six years old, "we were in the train, and she was too," and she pointed to where another child lay quite still upon the grass; not picking daisies--no, she could not speak or move, she was dead.

Put your finger on your wrist, and keep very still for a moment. Listen. You feel something, do you not? Something alive, and it goes beat, beat; one, two, three, like the ticking of a watch. As long as you live, that tick, tick will go on; but for this little girl it had stopped, because her heart had ceased to beat. When the doctor put his hand upon her wrist, he could feel nothing moving there. "She is quite dead," he said, as he took her body up from the grass that it might be carried back to her home, the home which she had left that morning, so happy and gay.

At the Sunday-school these children had been taught about the "wondrous, glorious Saviour," of whom you sometimes sing, and we may believe that the spirit of this dear child, redeemed to God by the precious blood of Christ, went straight from that wrecked train to spend its long for ever with the One who had loved her and given Himself for her; and that God, who takes care of the poor little body which was laid low in the grave with many a sad tear, will raise it in glory, one day, when "death is swallowed up in victory."

But there were not only very little children in that wrecked train. We are told of a boy who was terribly hurt, but lived an hour after the crash came. As he lay by the wayside, a young girl with a pitiful heart came and knelt beside him.

"I will pray you up to heaven," she whispered.

"I am going there!" said the dying boy; "Lord Jesus take me, I am ready."

Of another his poor mother said--

"I asked him before he started--'Well, dear, have you committed yourself to your heavenly Father?' 'Yes, mother, I have,' he said. So I gave him my blessing and sent him off, and that was the last time I ever saw him alive."



These boys did not think as they left their homes that morning that they would never return, but they had learned to know the Lord Jesus Christ as their own Saviour, and so when danger and death came, they were ready to leave this world and go to Him: their boats were not wrecked; they sailed right into port.

And now that we are coming to the end of our lesson for to-day, let us "think back," and see if we can remember what it is all about, and then we will mark the subjects (\_a\_), (\_b\_), (\_c\_), (\_d\_), to help us to keep them in mind.

The subjects were--

(\_a\_) That very far away time which God speaks of as "the beginning."

(\_b\_) It is God alone who can tell us about this time.

(\_c\_) God, who made all that has a beginning, Himself had no beginning. This means that there never was a time, no matter how long ago, when God was not. If you think back, back, even to the time when there was no sky, no earth, no great ocean, you can never come to a time when there was no God.

(\_d\_) "In the beginning was the Word, and the Word was with God, and the Word was God. The same was in the beginning with God." The "Word" is one of the names of the Lord Jesus Christ, who came to this world that He might show us how very much God His Father loves us, and who could say, "He that hath seen Me hath seen the Father."

For He who was once born a little child in this world and laid in the manger at Bethlehem, and who grew up in the home of Joseph and Mary at Nazareth, is the Same who was "in the beginning with God," for He "was God."

This is what God has told us about His great Eternity, when Time, with its days and weeks and months and years, had not begun.

"TIME AND ETERNITY.

"How long sometimes a day appears!  
And weeks, how long are they!  
Months move as slow as if the years  
Would never pass away.

"It seems a long, long time ago  
That I was taught to read;  
And since I was a babe, I know  
'Tis very long indeed.

"Days, months, and years are passing by,  
And soon will all be gone;

And day by day, as minutes fly,  
Eternity comes on.

"Days, months and years must have an end;  
Eternity has none.  
'Twill always have as long to spend  
As when it first begun.

"Great God! no finite mind can tell  
How much a thing can be:  
I only pray that I may dwell  
That long, long time \_with Thee\_."

JANE TAYLOR.

RUIN AND DARKNESS.

"\_Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear.\_"--HEBREWS xi. 3.

"\_Whatsoever the Lord pleased, that did He in heaven, and in earth, in the seas, and all deep places.\_"--PSALM cxxxv. 6.

There are three words which God has used to tell us about His work which we call "The Creation."

We read, "In the beginning God created the heaven and the earth."

"And God made two great lights."

"And the Lord God formed man."

"Created," "made," "formed," these are the words; and it is of the first of them we shall speak a little to-day.

Before my children came, I had been thinking how I could make it plain to the little ones that there is a very great difference between being able to create and being able to make anything. It happened that when they came in they were all talking so fast, of something which had greatly delighted them, that it was some time before I could find out what it was all about. At last Sharley told me that as they were racing along with their hoops a strange dog had followed them, and rubbed his nose against their hands, wanting to make friends with them.

"We are quite sure it is nobody's dog," she said; "or at any rate it is a dog that has lost its master, and has no home now. So after lessons we are going to call it, and get it to follow us home. It is waiting for us

outside the door this minute."

"And I am going to make a kennel for it," said Ernest, who was very fond of sawing and hammering away in the shed behind, the house, and wished to be a carpenter, when he grew up; "at least, I am going to try, and I think I can."

I may as well tell you at once that this little stray dog soon got tired of waiting, outside the door. When lessons were over, and the children went to look, no doggie was to be found; and as they did not know his name it was not easy to call him. I have no doubt he found his own master and his own home again, and was much better off there than he would have been in the best kennel Ernest could have made, with seven boys and girls to take him for a walk every day.

However that may be, I tell you of this dog because it was while Ernest was talking about making a house for it that I was saying to myself, "I wonder whether this plan of Ernest's about making a kennel will help them to understand, what I so much want them to learn, about the difference which there is between the words make and create."

First of all I had to tell them not to talk any more just then, but to repeat their verses. Then we read--more than once--for Leslie and Dick would not have liked to miss their turn, and there were not enough verses for each to read one--what God has told us in the first five verses of His book.

"In the beginning God created the heaven and the earth.

"And the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters.

"And God said, Let there be light: and there was light.

"And God saw the light, that it was good: and God divided the light from the darkness.

"And God called the light Day, and the darkness He called Night. And the evening and the morning were the first day."

When we had finished I asked Chrissie what it means when we read that "God created the heaven and the earth." Why is the word "created" used? Would any other word have done instead of that one?

Chrissie said no other word would do, because to create means to make out of nothing. He was right, was he not?

The next question was, "Why is create a word which can never be used except when we are speaking of God?"

I don't know who answered, but someone gave the right reason--"Because only God can make a thing be when there was nothing before it; nothing to make it out of."

This seems quite plain, does it not? But do you know there was once a boy, who did not believe that he could not create things until he had tried to make something out of nothing, and found that only nothing came. He was quite sure he could create anything if he only told it to come; so at last his teacher said, "You had better try."

He was only a very little boy, so he thought he would try, and up he got and stood as straight as he could on his chair, while he said with a loud voice, "Fishes, be!"

Perhaps it was a good thing that this boy should thus prove for himself that it is only God who can create anything; only God of whom it could be said, "He spake, and it was done."

I did not tell this little story to the children, but I said to Leslie, "You heard Ernest say just now that he was going to make a kennel for your stray doggie; do you think he could make one?" Leslie thought perhaps he might if he worked very hard; and then I asked them all whether, if he worked very hard, day and night, for a long, long time, Ernest could create a kennel?

"No, indeed he could not. He never could, no matter how hard he worked." Everybody was sure of this; for even little Dick quite understood that if the cleverest and handiest boy in the world were told that he must make a box, he could not even begin to make the commonest box unless he had something given him to make it out of, and something too to make it with. "He would need wood," they said, "and nails, and a hammer and saw; and if it were to be a nice box, to last long, he would want paint, and a lock and key, and hinges; and if he wished everyone to know that it was his own box, he must mark it with his name when it was finished."

Now I am sure you quite understand that this word "created," which you find in the very first verse of your Bible, is a word which you must not forget to notice whenever it is used, because it is a wonderful word, which can be used only in speaking of God, the Creator, and of the Son of God, by whom and for whom all the things that we can see, and all that we cannot see, were created; and in whose power they stand together.

Now I want you to read again very carefully the verses which we have read, and to notice that we have only one verse to tell us what God did at the beginning; this one verse explains that it was then that He created the heaven and the earth. This is all that God has told us, and it is just what we need to know; for how could we ever have found out by what means this earth of ours came into being, at the very first, if God had not been pleased to tell us that He created it?

But what a happy thing it is just to listen to the account which God Himself gives us, telling how the heaven and the earth came into being!

One who simply receives God's word into his heart will understand more than the cleverest man who ever lived, who tries by his own mind to search into the beginning of things, and to account for all that we now see around us

by any other way. We read, "By faith we understand that the worlds were framed by the word of God." Faith does not wait till it sees, but believes what God says, because He says it. We may say that we cannot understand what creation is, but we can find rest for our restless thoughts by saying "Yes" to all that God has told us--and the very first line of His Book explains all that we need to know about, how the heaven and the earth came into being, when it tells us that God created them in the beginning.

We read next, "And the earth was without form and void." We are not told in the verse which follows anything more about the "heaven"; that means the vast universe of which our earth is but a tiny part; but of the earth we read two things which are very surprising, when we think of what it is like now:

"Without form and void"--what does that mean?

After I had explained to the elder children that these words, which are used to describe the earth, mean that it was waste and desolate and without order, we looked for a verse in the New Testament which tells us that "God is not the author of confusion" (1 Cor. xiv. 33); and then we spoke about how we can be quite sure that the earth, which is part of God's creation, was not in disorder, not a waste and desolate place in the beginning; and we found in the Old Testament this other verse:

"For thus saith the Lord that created the heavens; God Himself that formed the earth and made it; He hath established it, He created it not in vain, He formed it to be inhabited; I am the Lord; and there is none else" (Isaiah xlv. 18).

The reason why we found this verse was because I wanted to show Sharley and Chris and Ernest that there the same word is used about the earth as in the verse in Genesis of which we had just been speaking. The words "in vain" are the same which were there translated "without form" by the people who turned the Hebrew, in which most of the Old Testament was first written, into English, that we might be able to read it. So you see how very important words are, and learn that when God tells us in one part of His Book that He created the earth not "without form," and in another part that it was (or became) "without form," the state of the earth as it is described in the second verse of the first chapter of Genesis was different from its condition when God created it in the beginning. Between these two verses, so close together in your Bible, ages upon ages may have run their course; a distance of time may have passed so great that we cannot measure it by any thoughts of ours.

What happened between the time, which God calls "the beginning," the time of the earth's creation, and that time when what He created had become "waste and desolate," we do not know. What this earth was like, when God first created it, we do not know. How the plants and animals, which now lie buried deep beneath the ground upon which we tread, and shut up within the rocks, lived and died, we do not know. How confusion and desolation came, we do not know. And why do we not know?

Because God has not told us. People have thought a great deal about it, and

they say that upon the earth itself may be read, as in a book, marks of the many changes which it went through during that far, far away time; but what we have to remember is that God does not tell us anything about it in His Book; it is with the days and weeks and years of Time and the "from everlasting to everlasting" of His great Eternity, about which He does speak to us, that we have to do.

God speaks to us, the inhabitants of the earth, of what it concerns us to know--and the first thing we learn about this earth upon which we live is that it was created by Him.

The next thing that we learn is that the earth which He had "formed to be inhabited" was "without form and void, and darkness was upon the face of the deep." This was the state of the earth which God had created, when He began the work of His wonderful "Days," and brought what had become a scene of desolation into order and beauty, a place prepared for men to dwell in.

And now there is one more verse to find, because it speaks about those SIX DAYS in which God "made" (not "created") the heaven and the earth. "In six days the Lord made heaven and earth, the sea, and all that in them is." (Exodus xx. 11.)

How wonderful it is, is it not? that God should tell us so much about His work! He might have made everything in a moment, by one word, but He was pleased to take all these "Days," and to tell us about the wonderful things which he made upon each of them, and at the end of them all we read--

"And God saw everything that He had made, and, behold it was [not waste and desolate any more, but] very good."

I wish that I could look over your shoulder as you are reading, and ask you whether there is anything you want to have explained. Ah, well! I cannot, and, perhaps, if I could I should not explain to you nearly so well as father or mother would. Only be sure you ask questions, if there is anything you do not understand, that you may have it made plain to you.

I once told my children about a little girl I knew, who very much wanted to know things, but sometimes she went on ever so long without knowing, just because she was too proud to ask; she could not bear for people to find out that she did not know all that she thought a child of her age ought to know. But children of any age cannot know things without being taught, and so it came to pass that this child grew to be quite a big girl without knowing how to tell the time. Once, when her mother said, "Run and tell me what o'clock it is," Lucy ran off as quickly as if she knew all about it, and then she stood at the foot of the stairs and looked at the clock, and wondered why one hand was still and the other moved, and how grown-up people knew what time it was by just looking at their watches for half a minute. Before she had found out any of these puzzling things, all at once Lucy heard her mother's voice calling, "Lucy, Lucy," and she ran back to her in a great hurry.

When asked why she had been so long, this poor, proud child made some excuse. And then--I am ashamed to tell it, but it only shows what becomes

of pretending to know, instead of asking to be taught--she told her mother what she guessed would be about the right time.

Her mother never thought she had been deceiving her; but Lucy went back to her play with a very heavy heart, and a miserable feeling of how naughty she had been, and how God knew all about it; and this was not the last time that the wish to be thought clever--so clever as not to need to be taught like other children, but to be able to find things out for herself--brought her into sad trouble.

After having heard the story of Lucy and the clock, my children knew how much I like them to ask questions, and were sure that I would answer them if I could; and so Sharley asked me about something which she could not understand.

"When God created the heaven and the earth, did He create the angels too?" she said. "Were there angels in the beginning?"

Now the first part of Sharley's question I could not answer. I could only say about it, "We do not know, because God has not told us."

Remember always, that when God does tell you a thing you must believe it, just because it is God who has said it; and it is only by believing what God tells you that you can understand it. But when you are quite sure that God has not told you about something which you would like to know, you must never try to guess at it, or make up something about it out of your own head. Our thoughts and fancies may seem very pretty, and please us very much; but we are quite sure to be wrong when we try to peep at what God has not shown us in the wonderful glass of His word.

But there is an answer to the last part of Sharley's question, and she found it in the Book of Job. When God was taking a great deal of pains to teach Job not to think himself wise or good--really not to think of himself at all--He asked him a great many questions which Job could not answer. This was one of the questions: "Where wast thou when I laid the foundations of the earth? declare, if thou hast understanding.... When the morning stars sang together, and all the sons of God shouted for joy?" (Job xxxviii. 4-7).

From this question, which the Lord asked Job, we know that at the world's birthday, when its foundations were laid, angels were there, rejoicing in God's works, though we do not know when these "sons of God" were created.

Angels are happy, blessed creatures; they are God's messengers, who "excel in strength and do His commandments, hearkening unto the voice of His word."

All we are told about angels is very beautiful. When the Lord Jesus was born, you know it was an angel who brought to the shepherds of Bethlehem, as they watched their flocks, the "good tidings of great joy," that to them was born a Saviour, Christ the Lord. How glad he must have been to fly with such a wonderful message! And how the "multitude of the heavenly host" must have rejoiced as they praised God, saying, "Glory to God in the highest,

and on earth peace, good will toward men" (Luke ii. 14).

It is beautiful to see that angels rejoiced at the world's birthday, and also at the birth of Him who is the Saviour of the world. And there is "joy in the presence of the angels of God"--the Lord Jesus Himself has told us of this--whenever anyone is sorry for his sins and turns to Him.

And there is another thing very beautiful to think of about the angels. They are God's ministers, or servants, who do His pleasure in serving His children here in this world; taking care of them, because they are so precious to Him.

I want you to find the verse which tells us about this "ministry of angels," and then I will not ask you to look for any more references to-day. It is at the end of a chapter in the epistle to the Hebrews.

"Are they not all ministering spirits, sent forth to minister for them who shall be heirs of salvation?" (Hebrews i. 14).

Remember that in the Bible the word "minister" means servant, and so to minister means to serve. And we must not forget that in the last book of the Bible we read of a "new song;" which no angel can sing, for it is known only by the great multitude of the redeemed; and though it will be sung in heaven, it is learnt on earth. Angels may join in the mighty chorus of praise to which every creature will add its voice--but it is those who have been redeemed by the precious blood of Christ who will lead that song and say, "Thou art worthy, for Thou wast slain, and hast redeemed to God by Thy blood out of every kindred, and tongue, and people, and nation."

How much is told us in the first three verses of God's Book? We have read that this earth, now so full of beauty, was once waste and desolate; there was no life there, and no light--for "darkness was upon the face of the deep." How long this state of ruin continued we do not know; but the next thing we are told is very solemn and wonderful--"the Spirit of God moved upon the face of the waters." Then, in the next verse we read, "and God said." The Spirit of God and the word of God are spoken of together here, where we read of His mighty working in the past in bringing the earth out of ruin and darkness into light and life and beauty; and it is by His word and His Spirit that the soul is turned from darkness to light, and is born again--born of God--now.

So that God has given us here a picture or type from which we can learn; but I hope to tell you a little more about this another time. Just now I should like you to look for a very beautiful verse (Deut. xxxii. 11) which compares the care of God for His chosen People to that of the eagle for her young; because the word there translated "fluttereth" is the same which in the second verse of the Bible is translated "moved," as we read, "the Spirit of God moved upon the face of the waters."

It is that Holy Spirit who alone can explain to us the meaning of such words, for it is written, "The things of God knoweth no man, but the Spirit of God."



"Songs of praise the angels sang,  
Heaven with hallelujahs rang,  
When Jehovah's work begun,  
When He spake and it was done.

"Songs of praise awoke the morn  
When the Prince of Peace was born;  
Songs of praise arose when He  
Captive led captivity.

"Heaven and earth must pass away,  
Songs of praise shall crown that day;  
God will make new heavens and earth;  
Songs of praise shall hail their birth."

J. MONTGOMERY.

THE FIRST DAY.

LIGHT.

"\_Where is the way where light dwelleth? and as for darkness, where is the place thereof?\_"--JOB xxxviii. 19.

"\_He knoweth what is in the darkness, and the light dwelleth with him.\_"--DANIEL ii, 22.

"\_God, who commanded the light to shine out of darkness, hath shined in our hearts, to give the light of the knowledge of the glory of God in the face of Jesus Christ.\_"--2 COR. iv, 6.

I want you to notice, in the beautiful verses which speak of "light," that God does not at first tell us anything about Himself. He speaks to us of what He did when in the beginning He created the heaven and the earth, and of what He said at the time when the earth lay in darkness, buried beneath the waters. In the midst of the silence and darkness a voice was heard, the voice of God, "And God said, Let there be light: and there was light." This we read in the first page of God's Book; but it is very near its end that God makes it known that the One who made the light, the One at whose word light came from darkness, is Himself Light. It is His very Nature.

"God is light." Now we learn from God's Word that there are two kinds of light, and two kinds of darkness; let us talk a little about this.

We can well understand one kind of darkness, because we can see it: and we know it is caused by the absence of light. It grows dark when the sun, which makes our day, has set to us, and the night has come to wrap us round, as it were, in a curtain of shade that we may sleep quietly. It is

dark too, not only by night, but all the day long in the deep caverns where the miner must carry his lamp to light up those dismal places where the sun never shines. This darkness, like that which rested upon the face of the deep before God spoke that word which brought the light, is caused by there being no light, and as soon as the light comes the darkness goes. The other kind of darkness we cannot see: it has to do, not with places, but with people, and we read about it very often in the Bible. It is that dreadful kind of darkness which has come through sin, and has settled down upon the heart of every one of us. This darkness God sees, and He speaks about it in His Word.

We find it hard to believe that our hearts are all dark when God looks at them; that He finds no love to Himself there; no bright spot anywhere; but God, who is Light, as He looks straight down to the depths of those hearts, and sees us through and through, has told us the truth about ourselves, as He sees us.

You do not like darkness better than light; the night better than the day, do you?

I remember how sorry I used to be when night came, and how fond I was of saying to myself a verse I had learnt, as I lay awake in the early morning and watched the dawning light--

"I saw the glorious sun arise  
Far o'er yon mountain grey,  
And as he rode upon the skies  
The darkness went away;  
And all around me was so bright  
I wished it would be always light!"

Yes, we naturally love the light which is so cheerful, and shows us so plainly all the beautiful things around us.

But that other kind of light which shines from God into our hearts, do we like it?

No; one sad thing that sin has done is to make us love the dark, because we feel as though there we could hide away from God. We know quite well that if God is looking at us He sees us right, just as we are, not as we like to think we are, and this is why we try to forget that He is always looking at us. I know a little boy, who had done something naughty, and had been hiding it all day. No one saw Georgie go to the cupboard and take a piece of sugar. He had eaten it, and had gone back to his play as if nothing had happened, before his grandmother came back into the room. All day long Georgie kept in the dark; a darkness which could not be seen ruled in his heart--but it was a darkness that might be felt, and which made him miserable. At last when bedtime came, and he had said good-night to his grandmother, upstairs in his little room his aunt knelt down beside him and began to pray. Presently something happened which showed that Georgie was praying really himself, while Auntie said the words. He looked up for a moment and said softly, "Tell God about that sugar."

And then he went to bed, oh, so much happier than he had been all those long hours before he had come into the light, and told the truth about what only God and Georgie himself knew--nobody else in the world!

But while I say this I think I am forgetting what we so often forget when we do wrong. Satan knew about it, and he had tried all day long to keep this little boy away in the dark, hiding from God, and to make him think it was not worth while to tell the truth about such a little thing as a piece of sugar. If any such thought as that comes into your heart when you have done wrong, do not listen to it for one moment. Remember that the darkness and the light are both alike to God.

And now I want to tell you about another boy, older than Georgie, who was made very unhappy by the thought that he could not get away anywhere to hide from God. But why did Johnny want so much to hide from God? Had he been very naughty? It was not because he had done anything very naughty just then, but because something inside him--that voice that perhaps often seems to speak deep down in your heart--spoke to him and made him afraid. He did not like that God, who is Light, should come close to him. When people saw him crying, and said kindly, "What is the matter, my boy?" poor Johnny could only say, "God is looking at me." He had just this one thought always with him--God was looking at him, and God could see what no one else could, the real Johnny, and all the secret things which he could not bear that anyone should know.

But had God only just begun to look at this boy? No; all his life long--more than twelve years, I think--the eye that never sleeps had been watching him. Johnny had tried to hide himself behind his play and his pleasures, and, as he grew older, behind his carelessness; but now he had learnt that none of the things which may hide us from ourselves and from others, can hide us from God. He could only feel that God was looking at him, and in this way Johnny learned something of the meaning of the words "God is light." That is what God has to teach us all, and it would be a lesson too terrible for anyone to learn, if that were all God has been pleased to tell us about Himself. But there is another part of God's message to us, and it was when Johnny had learned it that he was not afraid or unhappy any more.

It was because God was looking for him that He allowed this boy to have that dreadful feeling that there was someone, from whom he could not hide away, who knew him perfectly. Johnny learnt this lesson, and then God taught him not only that "God is light," but that he need not be afraid to stand, just as he was, in the light which shows everything, because of this other wonderful little verse which tells us that "God is love."

And so at last Johnny learned to say to God what king David said--after he had told God all the truth about what he had done, and God had forgiven him--"Thou art my hiding-place." I have heard a very wonderful thing; but I believe it is true. It is said of light that "it conceals more than it reveals"; that there is no hiding-place like light, if it is only bright enough; and the brighter the light is, the more impossible it is to find what has been hidden there!

I remember when I first saw the electric light; it was in the middle of the night, as the boat on board which I had been crossing the sea which divides Wales from Ireland, came in at the pier. All around, the whole scene was lighted up; the dark water shone, and the people came on shore and looked for their luggage, and took their places in the tram, no one thinking of such a thing as a lamp, for all was clear as daylight.

But this light, bright as it was, lighted only a very little space; as the train moved off we left it behind us, and hurried on into the dark night. How much more wonderful is the light of the sun which shines night and day, always giving light to some part of the world!

But sunlight, moonlight, and electric light, all these shine upon the outside, upon what we can see. God, who is Light, shines upon what is within, upon that heart which is by nature so dark that there is not one bright spot there, so that if God did not shine into it no light could ever come.

Have you ever seen, when the moon has been shining over the sea, making a long, broad pathway of brightness, a ship, as it sails along, suddenly come into that bright track? It is a beautiful sight; just for one moment every mast and sail all stand out with such distinctness that you say, "Oh, I can see her now perfectly!" Then, while you look, she has crossed the shining path, and you can but just trace her dim outline, and know that a ship is sailing there.

[Illustration: CROSSING THE SHINING PATH.]

When the Lord Jesus Christ was in this world He said, "As long as I am in the world, I am the light of the world." He showed people plainly that He knew them in a way that no one else could. Some people were glad; one poor woman, who had been in the dark all her life, went and told everyone about Him, and said, "Come, see a man, which told me all things that ever I did." Others could not bear that that light should show them to themselves, so we read that one day those who had been with Him, "went but one by one," until they were all gone. Which would you rather be like--the people who went away into the darkness, rather than be found out by the Light, or the one who stayed, and heard those words she could never forget--"Neither do I condemn thee; go and sin no more"?

The only way not to be afraid of the light is to come to the Lord Jesus Christ, who has said of every one that follows Him, that he shall not "abide in darkness, but shall have the light of life."

But hiding--hiding from God--only means getting deeper into the dark, farther away from Him who is Light.

Now that we have spoken of these solemn and important things--things which I like to speak to you about, but which God alone, who loves you so much, can really teach you:--I should like to tell you a little about the light as we see it all around us.

Now, what can we learn about it?

First, we learn that it was called into existence by the voice of God. God said, "Let there be light; and there was light" on the FIRST DAY, but it was not until the FOURTH DAY that those great light-bearers--the sun and the moon--were made lights to the earth, and set "for signs, and for seasons, and for days and years." But the question, "What is light?" is not one easily answered.

We can all understand that light is that which makes everything visible, but you will perhaps be surprised to hear that it has taken a very long time even to find out how the light comes to us.

It is now generally believed that light, which is one of the strongest powers in the world, is caused by motion; and that it is because every light-giving body is always moving very fast, that it gives out light. But no one can explain how this rapid movement began, nor what that "ether" is through which the "vibrations" travel until they reach a wonderful little screen which we have at the back of each of our eyes, by means of which we are able to see.

We may think of the air around us as a vast ocean, through which waves conveying light and sound are constantly travelling. When a sound-wave strikes the ear, we hear; when a light-wave, moving like a water-wave, reaches the eye, we see. Light comes chiefly from the sun: it is beautiful to think, is it not?--of waves of light streaming always, day and night, from that wonderful sun so far away, and coming, wave after wave, to paint beautiful pictures on our eyes! For if you and I both look at the same lovely view, we have each a picture of it--the mountains, and sea, and green fields, and houses--all to ourselves; and so it would be if, not two people, but two hundred were looking. One thing about light of which we are quite sure is, that it travels very quickly. It makes its noiseless journey all round this great earth eight times in one second--in less time than it takes for my watch to give one tick; and it comes all the long, long way from the sun to the earth in less than ten minutes.

I spoke just now of the light painting pictures upon our eyes. Did you know that if there were no light there would be no beautiful colours? Where the sun shines very brightly, in those parts of the world called the tropics, it is not only very hot, but travellers tell us that there the green of the leaves is darker than we are accustomed to see it, and the colours of the flowers and of the birds' feathers are more brilliant than in our own country, where the sunlight is never so strong.

Then, though the sunlight gives their lovely colours to the anemones and seaweeds, as it shines into their homes in the shallow places near shore, if you could go far down into the ocean depths, where the light can hardly reach, you would find the colours of any creatures, or plants, or shells that might be there soft and pure, but not brilliant.

But how does the light make the colours? It seems only white, or perhaps gold-coloured, in itself.

This is what I should like to explain to you, for it is a very beautiful

lesson, and not difficult to learn.

When I asked the children if they could tell me what we mean when we say that a thing reflects the light, Chrissie said he had often seen the red sunset reflected by the windows opposite, but he could not quite tell how to explain it.

We may read in books this explanation: "The reflection of light is the turning back of its rays by the surface upon which they fall." And while we read this we must remember that the surface or outside of everything has some peculiarity about it, which affects the light as it falls upon it.

The light of the sun is made up of seven colours, though God has so perfectly blended them that we see only white light; but all these colours may be traced in the seven-coloured arch, which is a token to men of His mercy, and a sign that while the earth remains "seed-time and harvest, cold and heat, summer and winter, day and night, shall not cease."

The smallest portion of light which we can speak of is called a ray of light. You have seen, when what you call a beam of light comes in at a hole, before the shutters have been opened, how the little specks of dust glance up and down in it, as if they were at an endless game of puss-in-the-corner. But have you ever seen beautiful colours, like those of the rainbow, dance about the room--now on the ceiling, now on the floor?

You can best see this lovely little rainbow by darkening the room, and letting just one ray of light stream in through a small hole. Then take a bit of glass, cut so that it has at least three sides--a "drop" of cut glass from the lustre on the mantelpiece will do--and hold it up between you and the light. This little piece of glass, which is called a prism, because it has been sawn or cut, will do a wonderful thing, as you turn it about in the sunbeam. The ray of light, as it passes through the three-cornered bit of glass, will be turned out of its straight path, and this causes it to be split up into many colours, so that you will have a tiny rainbow, which can be seen beautifully if you allow it to fall upon a sheet of white paper; and the colours are always arranged in the same way. Look! in the centre of your rainbow there are green and yellow; then comes red, then blue, then violet. You can easily see these five colours; and two more are counted; indigo, or dark blue, and orange. The only difficulty about saying how many colours you can see is this. If you begin with the violet, and count till you come to the red, you will find that the soft hues are so blended, or run into each other, that it is not easy to see where one ends and the other begins.

I want you to make this little rainbow, not only because the colours which it paints upon the ceiling are so pure and beautiful, and it is so curious to see the bright band of red and blue and green dancing from place to place as you turn your bit of glass, but because you can see in this way how a ray of light spreads itself out when it passes through this glass with three sides. The colours are separated from each other because no two waves of light are of quite the same length; some move slowly and others fast, and the faster a wave travels the more it is turned aside out of the straight road.

This is a difficult subject, but I think you will understand that if all rays were alike, the whole beam would be bent; but as some are more easily bent than others, as they pass through the prism they are spread out.

Long ago, the great philosopher Newton bought a prism, and thus "analysed" or broke up the sunbeam, and discovered what is called the "prismatic band" of colours. He found that what seemed to be white light was made up of tints really infinite in number; for though we count only seven prismatic colours, they are shaded off, one into the other, as you see.

Having thus broken up the beam of light, Newton, by means of two prisms, put together again the rays which he had separated, and the sunbeam was "white" as before. Perhaps you wonder why we do not always see coloured light: the reason is that the waves of light, unless interfered with and turned out of their straight path, all travel together in their rapid, noiseless course, and so remain unbroken.

You will find it very interesting to make the first of Newton's experiments yourself, and some day perhaps you will hear what wonderful things about the sun and the stars are being learnt in our own time by means of the spectroscope, which is an instrument having a fine slit through which the ray is passed before it is allowed to fall upon the prism.

And now what do we mean when we talk of things being of different colours? When we say of snow that it is white we mean that, as the light falls upon the snow, it is all sent back again. The surface of the snow reflects all the light, and keeps none. The other day, when I was buying some flowers to plant in the garden, the woman who was selling them showed me a black pansy. "I am sure you would like to have this root," she said, "black pansies are so rare."

[Illustration]

I did not buy the flower, for I did not think it nearly so pretty as the purple and yellow pansies, which seemed to look up at me with such knowing little faces; but I was interested to see it, because (and are you not glad that it is so?) black flowers are very rare. But why was this pansy black? Ah! it was quite different from the snow; it kept all the light which fell upon it, and gave away none. You see that God has given to some things the power of absorbing light and to others that of reflecting it. If it were not so, our world would be very different from the beautiful world which it is--as different as an engraving is from a coloured picture, with fields, gardens, sea and sky all of varied hue. Almost all the flowers are so beautiful because, while they keep some of the colours from the light which falls upon them, they do not keep all.

Now look at the flowers in that glass upon the table. The lovely rose keeps part of its ray of light, but gives us back the red; the larkspur gives back the blue; and those pure white lilies, which show so fair beside the roses, give back all the light in its bright whiteness just as it comes to them, so that a poet, who loved them well, calls them "those flowers made of light."

And the water in the glass, why is it white?

Because water is what is called transparent; it does not drink in the light, but lets the whole ray pass through it, as it passes through the window-pane.

Now my lesson about colours is over, and I will tell you a story. I don't know whether you have as good a memory as some of my children had, and whether you remember my promise to explain to you about types. I daresay you have heard this word used in more than one way, and a word which has two meanings is rather a puzzle, is it not? I know how it used to set me thinking, when I heard someone say of a new book that it was pleasant to read, because of its good type; the word was not new to me, but I had heard it used in quite another way, the way in which it is used when we say of the serpent of brass lifted up by Moses in the wilderness, that the dying people might look at it and live--that it was a type of the Lord Jesus Christ lifted up upon the cross, as He Himself tells us it was. I daresay, if I could ask you, you would tell me that "type" used in this sense means a picture. That was what Chris and Sharley said, but it was because I wanted the little ones as well as the elder ones to understand that meaning of the word that I told them this story which a friend of mine once told me, and which I am sure you will like to hear,

We were saying just now how dark it would be in the deep mines, far underground, where no daylight can come, if it were not for the lamp which the miner carries with him wherever he goes. You may think you would rather like to go down a mine, just for once, if you were quite sure of being drawn up safely in the miners' cage, but I think you would not go down, if you thought you would have to stay even a whole week in such a dismal place.

My story is about a boy who had never been anywhere else, for he was born in a mine, and all his childhood, while other children were running about in the fields, looking up at the sky and breathing the fresh air which makes your cheeks so rosy, this little boy might turn his bright eyes this way and that, but no trees and houses and gay gardens were to be seen, far or near; for though he was five or six years old, no one had ever taken him up to the top of the mine and let him see the sky, and pick the daisies, and feel the warm sunshine. Poor boy, he was an orphan; both his parents had died before he could remember, and he had no one to care for him in the way in which your dear father and mother have always cared for you. At last one of the miners thought what a sad life it was for a child to be always down underground, and he began to take notice of the lonely little boy, who had no father and mother to love him and be good to him, and in the evenings, when his work was done, he coaxed the child to come on his knee, and used to tell him stories about that wonderful world above ground which he had never seen.

Do you not think it must have been very difficult for the kind miner to talk about the blue sky and the birds, and the grass and trees, and all the beautiful sights which most children know so well, to a child who had never seen any of them? It was indeed a difficult task, but you know there is an



old saying about difficulties which tells us that "love will find out the way" to overcome them. The miner became very fond of his pet, and he found out a way of making the things of which he spoke seem real to him.

"He could show him pictures," you will say. That was what little May thought, and it would have been a very good way; but remember that there were no beautiful picture-books such as you have, down in the mine. How then could the miner teach his little friend about things above ground?

The only way in which he could do this was by means of things in the mine which the boy knew well, and had been used to all his life. So he would take his lamp, and talk to him about it, and show him how its tiny flame lighted up the darkness, and then he would point upwards, and say that far above ground there was a great lamp burning all day long, and giving light to the people who lived in that upper world.

Now you would say that a miner's lamp was a very poor picture of the glorious sun; still, this child saw that in the under world, where he lived, it made all the difference between light and darkness whether the lamps were shining or not; so the lamp was like the sun, at least in that respect, though it was so poor and dim, and such a tiny likeness of it.

In the same way--when his kind friend made the little boy look at the pails of water which were swung down into the mine, and explained to him that above ground, in that new world which he had never seen, the water ran along quickly in great streams called rivers, and that there was a great, great world of water called the sea--though you might say that a pail of water in a mine, water which would soon be used for the miners to drink or for cooking their food, would give a very poor idea indeed of the mighty ocean with its rolling waves, where the whales spout, and the ships sail on their long voyages; still, poor as it was, that water in the pail was a likeness, a type of the rivers and seas, was it not?

The children were interested in this little boy, and they wanted to know how long he lived in the mine, and what became of him afterwards; but this I could not tell them, for I never heard any more about him.

And now I want you not only to be interested in this story, but to remember why I have told it to you. You understand now, I am sure, that a type is a figure of something not present; of course, inferior to the thing it represents, as the miner's lamp was inferior to the sun, or a man's shadow on the wall is to the man himself, but giving a true idea to a certain degree.

The light given by the miner's lamp was bright when compared with that given by one little candle in a cottage window, and yet that feeble ray, quietly shining night after night, served to guide many a fisherman safely past a dangerous rock, which juts out into the sea, on the coast of one of the Orkney Isles. It was a young girl, the daughter of a fisherman, who lighted that candle and kept it burning. Her father's boat had been wrecked one wild dark night on "Lonely Rock," and his body washed ashore near his cottage. The girl, in her grief, remembered other poor fishermen, and when night came on she set a candle in the window, and watched it as she sat at

her spinning wheel. She did not do this once, or twice, but through long years that coast was never without the light of her little candle, by which the men at sea might be warned off the neighbourhood of the terrible rock.

In order to pay for her candles, this lonely girl with a faithful heart spun every night an extra quantity of yarn--for she earned her own living by her spinning wheel--and so the tiny flame was kept alight, and she found comfort in her sorrow by doing what she could, in her unselfish care, for "those in peril on the sea."

The meanest candle is a luminary in its way, for it possesses light, while the most brilliant diamond has none in itself, and can give back only what it receives.

And now that our lesson about the FIRST DAY is finished, we must not forget what we have been learning.

God, the Creator, alone in creation,

(\_a\_) "said, Let there be light: and there was light." (\_b\_) "saw the light, that it was good." (\_c\_) "divided the light from the darkness." (\_d\_) "called the light Day, and the darkness He called Night."

"And the evening and the morning were the first day."

The astronomer Proctor, in his beautiful book, *Flowers of the Sky*, says that "light is the first of all that exists in the universe." And we are told that the action of light was necessary to prepare the way for all life; but this is far too great a subject for us to speak of in this little book. Let us remember that God saw the light, that it was good, and that He made the division between light and darkness in nature which He uses as a figure in the New Testament, where we read that the children of God are called "children of light," and "not of the night nor of darkness"; and where "goodness, and righteousness, and truth" are spoken of as "fruits of the light," in contrast with "unfruitful works of darkness."

In all that is around us in this world which God made, if we had eyes to see, we should find pictures of the things which are unseen, but yet very real; so in the Book which He has written, He has given us pictures. The description in verse 2 of the waste empty earth, with darkness upon the face of the deep, and the Spirit of God moving over the face of the waters, is a picture of the condition of everyone born into this world.

In verse 3 we have a picture of God as Light shining into the dark and empty heart.

In verse 4 we see that God separates good from evil.

Now I want you to think of these things, and as we have been talking of the words,

God is Light,  
God is Love,

I am going to copy for you a hymn, which speaks of them very beautifully;  
my children know it well, and often sing it.

"God in mercy sent His Son  
To a world by sin undone.  
Jesus Christ was crucified;  
\_'Twas for sinners Jesus died\_.  
Oh! the glory of the grace,  
Shining in the Saviour's face,  
Telling sinners from above,  
'God is Light,' and 'God is Love.'

"Sin and death no more shall reign,  
Jesus died and lives again!  
In the glory's highest height--  
See Him God's supreme delight.  
Oh! the glory of the grace,  
Shining in the Saviour's face,  
Telling sinners from above,  
'God is Light,' and 'God is Love.'

"All who on His name believe,  
Everlasting life receive;  
Lord of all is Jesus now,  
Every knee to him must bow.  
Oh! the glory of the grace,  
Shining in the Saviour's face,  
Telling sinners from above,  
'God is Light,' and 'God is Love.'

"Christ the Lord will come again,  
He who suffered once will reign;  
Every tongue at last shall own,  
'Worthy is the Lamb' alone.  
Oh! the glory of the grace,  
Shining in the Saviour's face,  
Telling sinners from above,  
'God is Light,' and 'God is Love.'"

H. K. BURLINGHAM.

THE SECOND DAY.

THE OCEAN OF AIR.

"\_Dost thou know the balancings of the clouds, the wondrous works of  
Him which is perfect in knowledge?... Hast thou with Him spread out the  
sky?\_"--JOB xxxvii. 16-18.

"\_When He prepared the heavens, I was there: when He set a compass upon the face of the depth: when He established the clouds above: when He strengthened the fountains of the deep.\_"--PROVERBS viii. 27, 28.

"\_Who hath measured the waters in the hollow of His hand, and meted out heaven with the span?\_"--ISAIAH xl. 12.

In reading these beautiful verses, let us remember that in the second of them it is the Lord Jesus Christ who says of that time when God prepared the heavens, "I was there." And now, as we are going to think about what God did on the SECOND DAY of Creation, I want you not only very carefully to read those verses in the first chapter of Genesis which tell us about it (verses 6-9), but to keep your Bible open at the place, so that you may be able to refer to them constantly.

When we had read them together, my children noticed that in these verses we find once more three words which are used to tell us about the work of God upon the FIRST DAY. You see these words, do you not?

"God said, Let there be a firmament in the midst of the waters."

"God divided the waters which were under the firmament from the waters which were above the firmament."

"God called the firmament Heaven."

And there is one word which has not been used before: "And God made the firmament."

It is quite simple to see this, but I daresay you want to know, as all the children--even the elder ones--did, the meaning of one very uncommon word which we find in each of these verses. "What does 'firmament' mean?" they said.

I told them that the word conveys the idea of something firm and strong and steadfast; and then I asked Sharley, who has a reference Bible, to look in the margin, and tell me what word she could find there which might be used instead of this uncommon one. She found, as you will find if there are references in your Bible, that the word is there translated "expansion." And what does that mean?

You can understand something spread out wide, can you not?

Those who turned the Hebrew word into English long ago thought "firmament"--that which stands fast--was a better word than "expansion," which simply means what is stretched or spread out--as the heaven is spread above the earth "like a curtain." The expanse, then, which God made on the SECOND DAY, is what we call, the sky, as we look up and see the

"... tapestried tent  
Of that marvellous curtain of blue and gold,"

which is high above our heads, and stretches away far, far as our eyes can reach. And this tent, under whose shadow we dwell, is not firm and solid, but is really a globe of vapour, which surrounds us everywhere, and reaches, not all the way up to what we call the blue sky, but very much higher than any bird could fly or balloon float--as high as forty or fifty miles above the earth. God has fixed its height; if it were less, every breath we take would hurt us; if it were much greater, we should be always tired.

But before we speak of this atmosphere, or globe of air, which surrounds the earth, I want you to remember, as you read of the work of God on the Six Days of creation, that each one of these Days led, in a beautiful order, to the next, and that in all of them God was preparing the earth, which He had created in the beginning, for the creatures which He had not yet formed. For each kind of creature a place was found fit for it to live in, whether that dwelling-place was the earth, or the great and wide sea, or the boundless fields of air. And each creature, as it came from God's hand, was fitted to live where God had placed it: for every living thing the means of living was provided. Thus on the First of His Days God called for the light. What would the face of all the world be without it? Then on the SECOND DAY He not only provided the place in which the happy winged creatures fly and utter their sweet songs, but that by which all living things, whether they were plants or animals, should be kept alive. I am sure you know that without air you could not breathe; but perhaps you have never thought that without it no plant could live, not even the smallest blade of grass. Every green thing lives by breathing the air, and if there were no air which it could breathe, it would soon die.

How freely God has given us this great blessing! His air is all around us, as is His presence. When people wish to speak of what belongs to everyone alike they sometimes say, "It's as free as the air you breathe"--this wonderful air, which we cannot see, but which helps to make the sky so blue, without which no fire could burn, no robin sing to its mate, no lamb bleat after its mother, no merry voices of boys and girls at play be heard. God has indeed made it free to us; but let us never forget that we are, as His creatures, dependent upon Him for every breath we draw.

Now while we speak of the way in which this world was created by God, and fitted to become the dwelling-place of His creatures, we may remember how the Lord Jesus spoke to His disciples, after He had told them that He would be only a little while with them, about the place He was going to prepare for them. This reminds me of a little incident which I should like to tell you, because it is so beautiful to know that the Lord of glory, who was allowed no place here, He who

"Wandered as a homeless stranger,  
In the world His hands had made,"

has indeed gone to prepare a place for those whom He has, by His death and resurrection, made ready to dwell there.

In a quiet market-town in the North of England an aged Christian had

invited a number of those of whom our Lord says, "whosoever ye will ye may do them good," to take tea with him and his friends. After they had enjoyed what loving hands had made ready, their host took out God's book, and turning to the second verse of the fourteenth chapter of John's Gospel, read it, and then said, "It comes to me in this way, dear friends: If our Lord is preparing a place, He wants a prepared people."

He then went on to say that we all need preparing, that is making ready, to dwell in the place of which the Lord Jesus Christ spoke as "My Father's house"--the place which was always His own home--and then he told once again the story which you have so often heard--

"... the old, old story  
Of Jesus and His love."

The Lord often spoke to His own disciples about His Father. He said, "I came forth from the Father, and am come into the world: again, I leave the world, and go to the Father," and when He spoke of leaving them He said, "If ye loved Me ye would rejoice, because I said, I go unto the Father." But we know that those who had been with their Master for so long did not rejoice when He spoke of going away: their hearts were filled with sorrow.

When He said to them, "Whither I go ye know, and the way ye know," Thomas replied; "Lord, we know not whither thou goest, and how can we know the way?"

What did the Lord say?

He said that He was Himself the way to the Father--"I am the way, and the truth, and the life: no man cometh unto the Father but by Me."

But if the Lord was going back to His Father's House--the place which was always His home--He was not willing to go alone. He might have gone back at any time, but if He would have those who could neither cleanse nor clothe themselves, who were sinful and unfit for that Home of love and light, He must go by the way of death, giving up His own life, that He might make them ready to dwell with Him in His Father's house; so that when He said, "I go to prepare a place for you," He, the Son of God, in His wonderful love, was going to do that which alone could make anyone fit to enter there, and be at home for evermore.

But then we sometimes go on as if we were to live in this world for ever, and do not come to Him who says, "I am the way." Or perhaps we think we can make ourselves ready by trying to be good--forgetting that the One who is Himself the Truth said, "The Son of Man is come to seek and to save that which was lost," and that if the Lord is preparing a place, He wants a prepared people.

But we were speaking about the way in which God, when He made this world in which we live, prepared it for the creatures to whom He would give it to be their dwelling-place; and especially of the globe of air with which He has surrounded the earth--that wonderful ocean of air in which we live and move, just as the fish live and move in their ocean of water.

Let us see if we cannot learn something more about the atmosphere. But first of all let me ask, What can you tell me about it?

"You cannot see the air; you can feel it, and often hear it."

Yes, indeed we can. How delightfully fresh it comes to us as we swing, or when we are driving fast, or sailing; and how terrible its force is when the stormy wind rushes past, driving everything before it! It is then we can understand that the gentle air, which yields to the slightest touch, may be a very mighty power indeed.

And now I am going to tell you something about the air which may surprise you. We often say of a thing that it is "as light as air"; but air is not really light, it is so heavy that it would press upon us and crush us, just as a great hammer might crush your little finger, only that this heavy weight of air presses quite evenly everywhere all through our body, within and without, upward as well as downward, and yields at once when we move, so that we do not feel its weight.

Just think of the weight of water which lies above a little fish as it swims far down in the sea. Why is it not crushed by it? Just for the same reason; the water is all round the fish, as the air in our ocean is all round us; and it presses so evenly that it cannot be felt in any particular part.

Another very wonderful thing about the atmosphere is that what we call the air is made up of two airs, or gases, as different as possible from each other, but mixed so as to make exactly that particular sort of air which is fit for us to breathe.

One of these gases, named oxygen, might well be called "life-sustainer"; it forms about one-fifth of the air we breathe, and is that part of it which makes our fires burn and our lamps give light, and keeps us and all the animals alive. The other gas is called nitrogen; it is a dull gas, with no life in it, and remains behind when all the oxygen is taken out of the air. But this part of the air is very useful; it prevents the breathing of men and animals and the burning of fires and lamps, from going on too fast. If you had only the life-sustaining part of the air to breathe, you would soon die; and if the air was all made of that part which burns so well, one spark falling upon it would be enough to burn up the whole world, for no one could put the fire out.

These two gases are mixed in nearly the same proportions in all climates so as to make the beautiful pure air which God has given us to live and go about in. There is another gas, called carbonic acid, made partly of oxygen and partly of carbon, or burnt wood, which might be called "life-destroyer," for it will put out light and make an end of life. It is one of the most deadly poisons, and forms the "choke-damp" which too often suffocates the miner; but what we call fresh air contains such a very small proportion of this dangerous gas that it is harmless. Still we must remember that every time anyone or any animal breathes, some of the air by which we live is taken away from that which surrounds us, and some of

this poisonous air is thrown into it. If this is the case, should we not, by degrees, find the air becoming less and less pure and fit for us to breathe?

Certainly it would be so, if God had not made a beautiful provision for keeping the air fresh, which I will try to explain to you.

You may remember that the Lord Jesus, after He had made the five barley loaves and two small fishes prove enough for thousands of hungry men and women and little children, turned to His disciples, and said, "Gather up the fragments that remain, that nothing be lost." So, in the world around us, we may often see that God gives freely, but does not allow what He has freely given to be lost or wasted.

Now when you take a long breath, and breathe in the air, you presently breathe it out again. But what you breathe out is not the same; the part of it by which you live is gone, and a poisonous air has taken its place. Then, if every person in the world, and even the smallest animal, is constantly using up the good part of the air, and breathing out that which has been spoilt for animals, and would kill them if they had nothing else to breathe--why are not all animals poisoned? What becomes of this air which has been spoilt for them? Is it good for anything?

Ah! there is a wonderful, beautiful answer to these questions going on all day long, surely and silently, unseen by any of us.

This air which has been used by us, and is no longer fit for our use, feeds the plants and trees, the grass, and all living things which are not animals; the plants, through tiny mouths at the edge of their leaves, breathe it in. They grow by it; and, wonder of wonders, all day long, if only the plant is where the sun can shine upon it, every green bit of it is busy making this same air fit for us to breathe again; using up what it wants, and what we do not want; every fragment, as it were, being gathered up, and nothing lost.

I used to think, when I first learnt this beautiful lesson, that every part of a plant was useful in purifying the air, and also that plants are always busy at this purifying work, and so I liked to keep geraniums and fuchsias in my room at night, for I thought that while I was asleep they would keep the air fresh and sweet. But now I know--for as long as we live in this world we can always be learning--that it is only in the daytime, when there is light, that a plant can keep the air pure, by using up what we have spoilt for our own use, and giving away what is good for us to breathe; and also that, it is only the green part of it that has the power to take out of the air the carbonic acid which we are constantly breathing into it, using the carbon for its own food, and giving the oxygen back into the air for our use; the parts which are not green, such as the roots and flowers, breathe just as animals do, and spoil the air for us instead of making it more fit for us to breathe.

You never thought, did you, that you help to feed the trees, and to keep them alive and green, and that the trees and grass in their turn help to keep you alive?



We were saying the other day how a ray of light will come through a little round hole in the shutters when they are closed, or by any cranny through which it can force its way. As long as that one ray is shining into the darkened room you may watch the little grains of dust, like bright specks, dancing up and down in it. But someone opens the shutters, the room becomes all light, and you no longer see those tiny specks--and yet the dust is still there, not only where you saw it, but all over the room.

Why could you see the dust just where the ray of light shone, and nowhere else? The light did not make the dusty specks, they were in the room already, but it showed them to you.

Just so there are many wonderful things going on around us in earth and sky and sea--in what people call Nature--which we cannot see or hear or feel; for God is always working mightily and graciously, unseen and unheard by us, though He does allow us to know "parts of His ways," and to look with wonder upon many more which we cannot understand.

We are apt to think that all things continue as they were from the beginning of the world: but in reality the earth is never at rest; it has passed through many changes, and still the old story goes on; on the one hand there is change and decay, and on the other that constant building up and repair by which "the face of the earth" is "renewed." Nothing is lost; nothing stands still; and things which seem to have no relation to one another, yet depend upon each other and work together in ways more wonderful than we could ever have imagined: each is a part of the great whole, and you could not take away any portion without spoiling the rest.

And now let us read again the 7th and 8th verses of our chapter.

"And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so. And God called the firmament Heaven. And the evening and the morning were the second day."

What are the "waters which were above"?

They are those beautiful clouds which seem to float in the ocean of air. I am sure you have often wondered at their pure loveliness, as they sailed over the sky, soft and white against the blue, as the foam upon the sea. It was such clouds as these which two little boys saw once when they were out driving. They were sitting close together in the back seat, and their father heard them talking about the sky.

"Look," said one of the children, "God lives in the blue."

"No, Georgie," said his brother, "He lives in the white."

They were both right, for God is everywhere.

A little child of whom I have heard used to think, because she understood that brightness and glory go together, that the stars were holes in the

floor of God's dwelling, to let the glory through. In the book of Job the clouds are spoken of as "the treasure-house of the rain and snow," and as the "bottles of heaven," and these names become full of meaning when we know that the water, which falls from the clouds at every shower, is constantly being drawn up again to fill them once more. This is done by what is called evaporation, and very much of the water which rises to the clouds comes from the sea, along shore, as well as from rivers and lakes. Have you seen a pond dry up in summer? No? Then perhaps you have looked into the ink bottle when all the ink had gone, and only some dry black dust was left in it. What has happened? All the water in the ink has flown away; the heat has turned it into vapour, which is lighter than air, and so it has risen up through the air to form part of those snowy clouds which you love to watch, when the light of the setting sun turns them to crimson and gold. This change of water into vapour is one of the beautiful things which we cannot often see, but which is always going on. The rain from heaven falls upon the thirsty land, making it bring forth and bud, that there may be bread for us, and food for every living thing; and then, when its work is done, all that is not wanted goes back again, and is stored up in the treasure-house of the clouds--nothing is lost.

I remember when we were speaking of this, I asked my children what the earth would be like if all the rain that fell remained upon it. Chrissie was the only one who had an answer ready; he said it would soon be a swamp, and nothing could grow well, and no one could live. We can all understand that if there were no rain to "satisfy the desolate ground," the earth would soon be a parched desert; but it is just as true that, while the rain is such a blessing, if God had not provided for its returning to the clouds, the earth would indeed become a desolate waste of water. I must tell you that little Dick was very much interested about this, and he remembered that he had seen, in a place where the sun was shining, the water going back from the earth to the clouds. "It went up in streaks," he said, "and I saw it quite plainly."

Generally we look up at the clouds, but I remember once looking down and seeing them below me. I had climbed a high mountain, and just when I got to the top it happened that the peak was quite clear, but around it, a little lower down, a wreath of white cloud was floating. Every now and then, through a rift in the cloud, I could see the beautiful valley below, with its smiling fields and winding river, and far away there was the sea, with hundreds of green islands; all this I saw for a moment, as if through a soft thin veil, and then the cloud closed again, and shut out the view. I can quite understand travellers saying how lovely it is when they sail through the air in balloons, to get up into a clear still height, and see the "plains of clouds" below them. But there is one thing which makes voyages in balloons dangerous. The higher people go, the more thin and difficult to breathe the air becomes. One celebrated traveller, when he had got as high as seven miles in his balloon, lost his senses, and his companion was nearly frozen to death by the piercing cold. This traveller tells us that about six or seven miles above the earth no sound can reach the ear to break the perfect stillness and silence. This is because the air at this height is so thin. On the top of Mont Blanc a pistol-shot can scarcely be heard even though it is fired quite close; but if the same pistol were to be fired off in the next field you would hear it, and put

your hand to your ears because the report was so loud.

But what makes the report? The pistol was fired into the air, and hit nothing.

It was the air which was struck, and which sent back the sound. You remember learning how light is turned back or reflected. Just as the light-waves come back again, so do the sound-waves; very quickly if the reflecting surface is near; after some time if it is far off. You know what an echo is. There is a lovely place where some children I know used often to go for a picnic. What they cared for most in Coombe Dingle was a wood which they called the "Echo wood." They would stand beside a gate, and call across the fields, and then listen. Very soon their own words, and even their own tones, were sent back to them. The waves of air carried the sounds along until they reached a pine wood which shut in the field. They struck the tall trees, and were reflected, or sent back again, almost as clearly as when first spoken.

Just in this way echoes of sound are, like birds, ever on the wing: the whole air is alive with them. The walls of our rooms give back the tones of our voices, but we hear no echo, because they are so near that the repeating of the sound comes almost at the same moment as the sound itself. There are echoes on all sides of us, and no sound is ever lost. How can this be?

If you stand beside a quiet pool, and drop a stone into it, the stone sinks down to the bottom and lies there; but from the spot where its fall broke the calm surface, ring after ring ripples the water. Just so a single word dropped from the lips of a child into the ocean of air is carried on, wave after wave; so that, as a great philosopher once said, "the air is one vast library, on whose pages is for ever written all that man has ever said or even whispered."

[Illustration: THE "ECHO WOOD"]

There is a poem which you may know, that begins with this line--

"Kind words can never die."

This is quite true; but we might alter the first part of it a little, and say, "No word can ever die." Not only the soft, loving words, but the rough, angry ones, which we may well wish we had never spoken, all live in this "vast library," and tell their own story.

How much it ought to make us think about our words, to know they can never be lost!

THE RED, RED SKY.

"In the early, early morning, beyond the islands green,  
Beyond the pines and palm trees, and the purple sea between,  
Like the glow through a crimson window the morning rises slow,

And the isles lie dun in the glory, and the sea is all aglow.

"In the dim and misty evening the purple mountains stand,  
And the glooms that hush the woodlands lie over all the land,  
And high in dark blue heavens the red light burns and glows.  
Like the Jasper of God's city, like the deep heart of the rose.

"Oh, why does morning dawn, and why ends the golden day,  
With the crimson glow and glory, while the children kneel and pray?  
Is it thus that God would tell me before the day begins  
Of the morn of the Day of pardon, the Blood that has washed my sins?

"The morn of the day of gladness, the day of His love and grace,  
When like the sun in his glory, the Lord unveiled His face,  
And His love shone forth in beauty where all was dark before,  
For the Blood had been shed which saved me, once and for evermore.

"Is it thus that God would tell me the evening draweth nigh,  
When we pass beyond the mountains, beyond the purple sky?  
And then, in God's great glory, the golden gates I see,  
And sing, 'The Blood of Jesus has opened them for me!'"

FRANCES BEVAN

Taken, by permission, from *Hymns by Ter Steegen and Others*. Second series.

THE THIRD DAY.

THE WORLD OF WATER.

"\_The sea is His, and He made it.\_"--PSALM xcv. 5.

"\_Who hath measured the waters in the hollow of His hand?\_"--ISAIAH xl. 12.

"\_Who layeth the beams of His chambers in the waters.\_"--PSALM civ. 3.

"\_He hath compassed the waters with bounds.\_"--JOB xxvi. 10.

We have been learning something about the wonderful world of air, in which we live and move about. To-day we shall think a little of that vast world of water which is the home of so many of God's creatures. I daresay you know a pretty song about the ocean, beginning in this way (it is meant to be sung by a sailor):

"The sea! the sea! the open sea!  
The blue, the fresh, the ever free!  
Without a mark, without a bound,

It runneth the earth's wide regions round;  
It plays with the clouds, it mocks the skies;  
Or like a cradled creature lies."

The philosophers say that if our earth were quiet and at rest, instead of being the never-resting traveller that it is, the great mass of water would surround it everywhere, just as the atmosphere does. We cannot imagine such a thing, but we can see many ways in which the two great oceans are alike.

Both have their waves. Though we cannot see those in the world of air, we can hear them, as you know.

Both are colourless in themselves, yet blue in their heights and depths.  
Both are made of two airs or gases, beautifully combined.

At first sight we might say that this is almost too strange a tale to be a true one; for few things seem more unlike than air and water. You will think it stranger still when I tell you that one of the gases which goes to form water is that same oxygen which gives life to the air we breathe, and which will burn so fast if only a tiny spark comes in contact with it; while the other is the gas called hydrogen, the "water-maker," which also burns. And yet these two fiery gases make the water which the brave firemen pump in streams upon a burning house to put out the flames. How wonderful this is! If you were to mix them together as carefully as you could, using exactly the same proportion of each as is found in water, you would make something very dangerous, which might blow up with a terrible noise like gunpowder. It is only when they are "combined," which means very closely joined together, that they form water.

Perhaps this is rather hard to understand; but we have been taking only a very little peep into that page of what is called the Book of Nature, which tells to those who will take the trouble to read it something about the chemistry of things--not so much how they are made, for that is a lesson too great for us, but what goes to the making of them.

And now we are going to read the verses in our chapter which tell us of the time when, at the word of God, "the sea and the dry land" were made.

"And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear: and it was so. And God called the dry land Earth; and the gathering together of the waters called He Seas: and God saw that it was good."

Once more you have read these words, "God said," "God called," "God saw." They are quickly read. But who shall say how wonderful is that of which they speak? God has been pleased in these few words to tell us what no one could ever have found out about the birthday of that mighty world of waters, when it was gathered together unto the place which He had prepared for it, and received its name from Him.

I wonder whether you have ever seen the sea. If you have, you know it and love it so well that there is no need for me to try to describe it to you. If you have not, if your home has always been in the country among the

quiet fields, far away from the sound of the waves as they break upon the strand; or if you have lived all your life in the town, where the streets are full of noise and bustle, and busy folk hurrying to and fro--then I think it would be almost as difficult for me to give you an idea of what the boundless ocean is like, as it was for the kind miner to make his little friend understand all about seas and lakes and rivers, as he talked to him over that poor little pail of water, deep down in the dark mine.

Ah! you must see the great ocean-world for yourself; you must sail over the crests of the waves, and learn to swim and dive. If you have never yet been to the seaside, there is indeed a treat in store for you some day, and I should like to be with you when that day comes, and catch a sight of your face, so full of wonder and pleasure. I remember hearing of a little "city sparrow" of a boy who was taken with a great many town children to spend a long summer's day by the seaside. When he first came in sight of the bay, with its bright, dancing waters, and saw the tide rolling in, wave after wave, upon the yellow sands, he gave one long, satisfied look, and then said, "How nice it is to see plenty of anything!"

Poor child, these words of his told their own touching tale; he had never, in his parents' home, known what plenty was, and so his first thought about the "great and wide sea" which God had made, was that there was enough of it and to spare--no stint there, at any rate. To another little boy, the first sight of the sea brought this thought, "How great God, who made it, must be!"

It is delightful to live, as I did when a child, within sight and sound of the sea; but I suppose it is only those who really live upon the world of waters, sailing away in a swift ship, day after day, for thousands of watery miles, and seeing nothing but the two oceans, "the blue above and the blue below," as that same sailor-song says, who can really know anything of its vastness. How strange it must seem, to be neither a fish nor a bird, and yet to live as it were between sea and sky; each morning finding yourself farther away from land, each night lying down to be "rocked in the cradle of the deep," and to hear the wash of the waves as the boat cuts her way through them, and the sighing of the wind, not through the trees on the lawn, but among the sails and ropes of your floating home!

I have sometimes thought that the sight of "water, water everywhere," during a voyage of three months, must make one more ready to believe what we are told by those who have done what they can in the way of weighing and measuring--that upon our globe "water is the rule, and dry land the exception"; and also that, although we read in geography books about the five great oceans, yet the ocean is really one, for it "embraces the whole earth with an uninterrupted wave." As we think of this wonderful wave which thus girdles the earth about, constantly breaking against the shore, yet always flowing back again, at its appointed time, into its own place, we may well remember that THIRD DAY of Creation, when "God spake, and it was done; He commanded, and it stood fast"; when "He gave to the sea His decree, that the waters should not pass His commandment."

In a Psalm which has been called the "Psalm of Creation," because it speaks

of the greatness and glory of God, and of how the Lord shall rejoice in His works, we find a description of what happened at this time. There is a beautiful verse which speaks of God covering the earth "with the deep as with a garment"; and of a time when it was so covered and hidden that "the waters stood above the mountains."

[Illustration: "WHEN SPRING-TIDES ARE LOW"]

And then we read how, at God's word, that waste of waters went into the place prepared for it, and the dry land appeared. "At Thy rebuke they fled; at the voice of Thy thunder they hasted away. The mountains ascend, the valleys descend, unto the place which Thou hast founded for them" (you will find the verse reads like this in the margin of your Bible). "Thou hast set a bound that they may not pass over; that they turn not again to cover the earth" (Psalm civ. 7-9). I was very young when I learnt this long Psalm; and though I understood very little of it, and certainly did not know that these verses spoke about what we have been reading of in the Book of Genesis, I was very fond of repeating it, and I especially liked the part which describes the "great and wide sea, wherein are things creeping innumerable, both small and great beasts. There go the ships: there is that leviathan, whom Thou hast made to play therein." Of course I need not tell you that I did not know what the leviathan was; but I liked the name because it was such a long, difficult word, and I have known other children who were particularly fond of strange and hard names. As we grow older we learn many things; and so--for I told you my home was by the sea--I got, in time, to know the meaning of a very difficult verse; that one which speaks of the "bound" which God has set, beyond which the sea with its proud waves "may not pass." When the tide was coming in I used to watch the long blue waves with their foamy crests coming nearer and nearer, and when I heard them break with a loud noise against the strong rocks I was quite sure that those stern barriers were the "bound" which kept them back, and would not allow them to come any further.

But by-and-by I went to a place where the shore was quite different. There were no rocky cliffs, like giants, guarding the land; only a long reach of soft white sand, with which I was never tired of playing--making forts with moats round them to keep off the enemy; or gardens with straight paths, and trim beds in which I planted sea-daisies and poppies.

It seemed as if there was nothing about this shore strong enough to keep back the great waves. They rolled in upon the sand with an angry roar when the wind was high, and swept away my castles and gardens in no time. Still, even here there was a bound, for the sea did not overflow the land; and so I learnt that those waves, which threaten to overwhelm everything in their resistless march, are kept in their place by God, who alone can say to the restless ocean, "Hitherto shalt thou come, but no further: and here shall thy proud waves be stayed."

As the poet George Herbert has beautifully said,

"Tempests are calm to Thee; they know Thy hand,  
And hold it fast as children do their father's,  
Which cry and follow, Thou hast made poor sand

Bound the proud sea, even when it swells and gathers."

I do not mean that the waves, as they rush like an invading army upon the land, have no effect upon it. Look at the Map of England, and see how the outline of the coast on the east and south has been jagged and broken. Or go and see the Needles in the Isle of Wight, and you will learn how the constant dash of the ocean can hollow out not only caves, but deep coves and spreading bays, especially when the land against which it breaks is made of chalk, or some of the softer rocks. Thus in the course of long centuries, the seashore may rise or sink; peninsulas may become islands by the narrow neck which united them to the mainland sinking into the water--but whatever the land loses in one place, it gains in another, by the quantity of sand and mud cast up by the waves. Many changes are caused by the restless sea, but yet, even in its wildest moods, it owns the curbing hand of its Maker; it may ebb and flow, but still keeps in its appointed place.

This ebbing and flowing, which is caused by the coming in and going out of the tides, was a great puzzle to me long ago. I used often to hear the fishermen say at what hour it would be "full tide"; but I saw no mark which could help them to fix the time, and wondered, when I found their words came true, how they could know so surely. When I was older I learnt, what is very interesting, that the gradual rising of the ocean, which is called the "flow," and the gradual going back again of the water, which is called the "ebb," do not happen at any chance time, for nothing is by chance in God's creation, but at regular intervals, and in obedience to one of those wonderful rules made by God, which people call the "laws of nature"--rules which never change as the rules which men make so often do. And so we notice that for about six hours from the time when the tide begins to rise, the sea gains upon the land, either stealing on, step by step, over the pebbly beach, and creeping tip the mouths of the rivers, or, when the winds are abroad, rushing over the sand, and dashing against the rocks, as if it would sweep all before it. No power upon earth can stop that steady onward march of wave upon wave, until the unseen boundary is reached. Then we say, "It is full tide." The mighty ocean seems to pause for a few minutes, then some old fisherman, who has known that shore all his life, says, "The tide has turned"; and for six hours the gradual fall goes on. At last the lowest point of the "ebb" is reached--a few minutes' rest, and then the "flow" begins again.

To those who have seen it all their lives there is nothing strange about this, but when some brave Roman soldiers, who were accustomed to conquer wherever they came, saw for the first time this ebb and flow of the tide, they were more frightened than they would have been if they had seen an army of savage men with spears and clubs rushing upon them with their fierce war-cry. They were in the presence of a power which they could not understand, and in terror they besought their general to lead them against foes whom they could face, or to take them back to their own land!

By-and-by you will be interested in learning more about the tides, but I will only tell you now that they are caused by the sun and moon. Two pair of waves travel round the earth every day, the greater pair obedient to the moon, which, because she is so much nearer to us, has a greater power of



drawing the water to herself than the sun has; the lesser pair obedient, in like manner, to the attraction of the sun. This is all that I can tell you now about a very difficult subject, and it is more than I told Chrissie or Ernest when we were talking about the sea; but then you know we had not much time for matters hard to be explained. One thing which I think we did talk about was the depth of the sea, and I know there were some differences of opinion about this as well as about its colour.

First of all, then, How deep is the "deep, deep sea"?

Actually, in some places, five miles deep, about the height of the loftiest of mountain-peaks. I have heard that these far-away ocean-depths are very quiet and still--no rolling waves ever break their stillness, and this is proved in a very beautiful way. At the bottom of the Atlantic Ocean, where overhead great billows which seem mountain-high are in ceaseless motion, there lie beds of delicate shells, so small that you need a microscope to see their beauty, yet these shells are unbroken; no storm ever reaches their quiet home; they are among the lovely things which the ocean hides in its "treasure-caves," and they only come to light when the long line with a clip at the end, which is used for deep-sea soundings, brings them to the surface from those

"Sand-strewn caverns, cool and deep,  
Where the winds are all asleep;  
Where the spent lights quiver and gleam,  
Where the salt weed sways in the stream."

These delicately "chambered" shells were once the homes of creatures which lived in the sunless depths of the ocean, for though it is totally dark at the bottom of the deep, deep sea, life is now known to exist at all depths below the surface of the ocean; on the ocean-floor starfishes and their relations abound, and some of those brought from a great depth are very beautiful indeed--telling to those who have eyes to see, the same tale as the little fern buried in the coal--that it is the glory of every created thing to show forth something of its Creator, even in hidden places where no human eye can trace its loveliness.

I am sure when we speak of the treasures of the sea, you are thinking of places where pearls lie deep, hidden in the shell of the oyster--but I did not know until lately that not only iron and copper, but also gold and silver, are found in sea water.

And now what can we say of the colour of the sea? I used to think that it was always a clear green, but that was because the sea which I knew appeared to be that colour, for I had seen it only near the shore, where the bottom was fine white sand, and the sunset light made the water shine like an emerald. And so the sea was green to me, and I was often puzzled and vexed to find that I could never catch this beautiful green water; for you know that if you dip your bucket where the sea looks greenest or bluest, all the lovely colour will seem to be left behind, and your bucket-full will look as colourless as water drawn from a well. Where the sea is dark blue, you may be sure that it is deep where it looks gold and purple, the sun has tinged it with the glory of his rising and setting;

where it is grey and sad, it takes its sorrowful hue from the rain-clouds overhead. These are some of the reasons why the sea is of such different colours, but the water is sometimes coloured, to some extent, by myriads of living things which give it a reddish tinge; in the cold Northern Ocean, where the icebergs are, travellers tell us the sea is green because there its tiny inhabitants are green; while those who have sailed in the South American waters tell of countless swarms of minute creatures which make them glow like fire on a dark night, lighting up the crest of every wave as it rolls past the ship.

The sea is also coloured by those beautiful plants which we often call by one common name--seaweeds, but which are almost as varied in their way as the land plants are.

Columbus, when sailing sadly through unknown seas in search of the New World of which he had dreamed so long, came upon water so covered with long green weeds that it seemed like a floating meadow, while his vessels could hardly make their way through the grassy tangles of what is now known as the Gulf-weed.

I have seen the sea off the coast of Ireland green for miles, with long, ribbon-like plants covering its sandy bottom, sheltering, and perhaps helping to feed, the millions of crawling and running and swimming creatures, many of them so small as to be nearly invisible, which find their home there. This sea-grass, or *Zostera*, the only flowering plant to be found in the sea, is very useful to the poor people who live near the coast. They gather it when the tide is low, and dry it in the sun, and it serves them for nice soft beds; though I should think they must always keep a briny, fishy smell about them.

[Illustration: "O'ER BANKS OF BRIGHT SEAWEED, THE EBB-TIDE LEAVES DRY."]

The Irish fisher-folk also gather the common brown seaweed with pods, which are really air-bladders, and serve to keep it afloat. I have many a time watched the women and children wading among the pools, cutting it from the rocks with sickles, and putting it into baskets, which they carry home on their backs; for this precious harvest of the sea is what they depend upon to make their potatoes grow well and yield a plentiful crop. There is another kind of seaweed, of a pretty purple colour, which they eat, and call it by an Irish name which means "leaf of the water."

But it is far away in the watery valleys of the great Pacific, where the sea is very calm, that the ocean forests grow. I have read that there giant leaves of the sea grow upon stems longer than those of our tallest trees, and spread abroad like waving palms. Though you are not likely ever to see such seaweeds as these, you will find, wherever you may be, though much more abundantly on some shores than others, some of those beautiful "weeds"--green, red, or brown--which have their use as well as their beauty; for they help to purify the water, just as plants do the air. Perhaps I should not promise more than the brown Tangle and the green *Ulva*, with its bright lettuce-like leaves; for red seaweeds belong to deep water, and are not easy to find. Many an hour have I spent peering and groping in the little pools at low water in search of these same much-prized

rosy-tinted "flowers of the sea"; and many a disappointment I have had, even after a fortunate find, in seeing how soon the lovely colour faded, in spite of all my efforts to keep it.

We often speak of the "salt sea" or "the briny ocean," without perhaps thinking how it comes to be salt. I used to think it was because there were vast salt mines at the bottom of the sea; but that was only a guess at the truth.

Let us think what happens when there is a heavy shower; how quickly the raindrops gather force until they run down the street, making gutters on each side! But how unlike the muddy water in these gutters is the rain as it fell from the sky--how is this? It is the same water, but as it hurries along each drop picks up and carries with it its own little grain of sand or dust. If tiny gutters are tinged by the mud which they carry with them, how much more must this be the case with the great rivers which empty themselves into the ocean! They carry with them not only sand and earth, but the minerals and salts which are contained in them, to form the bed of the ocean. The salt which is thus washed out of the soil by streams and rivers is not evaporated, but remains behind, for the sea has no outlet through which it can again be carried away.

If you go to Switzerland, you will be able to see for yourself how a great river as it rushes along its course washes away the soil. The Rhone, when it enters the Lake of Geneva, is so laden with mud that its waters are brown and turbid. For some distance you can trace the course of this brown water as it makes its way through the deep blue of the lovely lake, not mingling with it--but by the time the river reaches the other end of the lake it has rid itself of its burden: the mud has sunk to the bottom, and the Rhone flows out a clear stream. This is a strange and beautiful sight which perhaps you may see some day.

Have you ever noticed how often the sea is mentioned in the New Testament? We read of the Lord Jesus walking beside it, and sailing over it in the boat with His disciples. And I daresay you remember how He once sat in the boat upon the sea, while He taught the people who were upon the shore. The Sea of Galilee must have been calm and quiet then, but it was not always so. Travellers tell us a great deal about the beauty of this lake, when the sky is clear, and the crimson bloom of the Oleanders is reflected in the still water. But they speak also of the sudden and dangerous storms, which rush down from the mountains, and turn the glassy lake into a raging sea. In the gospel by Mark we read of just such a storm of wind, when the Lord Jesus Christ was in the little boat with His disciples crossing over to the other side. It was such a terrible storm, that the waves dashed into the boat until it was filled with water.

"And all but One were sore afraid  
Of sinking in the deep;  
His head was on a pillow laid,  
And He was fast asleep."

Yes, amid all the tumult and alarm, the Saviour who was often weary in this sad world, was sleeping upon the cushion of the boat. He slept on until the

disciples came and awoke Him with their cry, "Master, carest Thou not that we perish?" Then the voice of the Lord was heard above the rage of wind and water, and their cry of terror, as He rose and rebuked the wind, and said unto the sea, "Peace, be still." The proud waves obeyed that voice of power, the wind was hushed, "and there was a great calm."

Do you remember what the Lord said to His disciples, and what they said to one another, as they "feared exceedingly"?

Perhaps you wonder how anyone could be afraid, no matter how dreadful the noise of the winds and waves might be, when the Lord Jesus was there. It is true that in that little boat, tossing upon the dark stormy lake, was the One who upholds all things by the word of His power, the One whose word those stormy winds fulfil; but the disciples, though they had been so much with Him, were now to learn a little more who their Master was, and to find that there was no fear of perishing when the Lord of life was with them. They seem to have forgotten, too, that He had said, before they launched the boat, "Let us pass over unto the other side"; or they might well have afforded to be quiet when He slept, for after He had said those words, they were as sure of being there with Him as if already landed.

How kind it was of the Lord to put the disciples with Himself, and say, "Let US pass over"; and how safe and free from fear of harm are those happy people who have trusted themselves, with all they are, and all they have, for this life and the long life that is to come, to this mighty, gracious Saviour and Lord! One who knew this great happiness, once wrote these beautiful verses about having Christ in the boat as he sailed over the ocean of life, with its many storms. He said--

"My bark is wafted from the strand  
By breath divine;  
And on the helm there rests a hand  
Other than mine.

"One who has known in storms to sail  
I have on board;  
Above the raging of the gale  
I hear my Lord."

Once again in the same gospel by Mark we read of a tempest coming on while the disciples were crossing the Sea of Galilee; but this time their Master was not with them in the boat. He had told them to go to the other side while He sent away the crowds of people whom He had been feeding with the five loaves and two fishes--and then He had gone into the hill-country to pray.

The evening came on, the sky growing dark much more quickly than it does in our country, and Jesus had not come to them. Still the disciples rowed, and tried to get their boat to land, and still the storm grew louder.

"Fierce was the wild billow,  
Dark was the night,  
Oars laboured heavily,

Foam glimmered white."

How they must have longed to hear again that well-known voice rebuking the rough wind, and saying to the angry waves, "Peace, be still!"

But the tired disciples rowed on; and Jesus had not come to them. They did not know what we know, that their Master was watching them; He knew that they could not bring their boat to land, and that they were worn out with toiling at their oars, and were sad at heart too. And so, just at the darkest, coldest hour of that night of fear, the Lord came to His beloved ones. I have seen a picture of the weary men in their tossing boat, and a shining figure which is meant for the Lord Jesus, as He came to them, walking upon the white crests of the waves. But no picture can give a true idea of that wonderful scene.

Do you remember how frightened all in the boat were before they knew that it was the Lord?

They cried out for fear; and in answer to their cry they heard their Master's own voice talking with them, and saying, "Be of good cheer: it is I; be not afraid." Ah, what a change was there!

"Sorrow can never be--  
Darkness must fly,  
When saith the Light of light,  
'Peace; it is I.'"

And now, before we come to the end of this "world of water" chapter, listen to a wonderful story of the sea, told by the only one who could tell it--the heroine of the tale.

Look at the map of Scotland, and you will find its most northerly county, Shetland of the Hundred Isles, lying between the Atlantic Ocean and the North Sea. Perhaps you know this part of the world mostly in connection with the pretty little shaggy Shetland ponies which feed upon the young heather, and are brought to England for children to ride; but those who have visited it can tell very interesting stories about the wild country, with its warm-hearted kindly fisher-folk, and they often bring home with them beautiful shawls which the women and girls knit from the soft wool of their sheep.

They tell us that of the hundred islands, about thirty are inhabited. Some are large, but others so small that only one or two families live upon them; and others are little more than rocks--the home of sea-fowl of every wing.

In the largest island you will soon find Lerwick, the chief town. Now look to the very south for the lofty cliff called Sumburgh Head, and near it Grutness Harbour, where they catch the grey fish.

It was from this harbour that a small vessel, the *\_Columbine\_*, set sail on Saturday, January 30th, 1886, intending to make the voyage--rough at all times, but often very perilous in winter--along the coast to Lerwick.

Many a boat had perished on these cruel shores, even since lighthouses have been placed to warn the seamen from the most dangerous rocks. If you had asked the captain of the Columbine about his route, he would have told you that he must steer past Cape Noness, then close to the Isle of Mousa, with its ancient castle built in the time of the Picts; Bressay Island would next come in sight, and then the tall lighthouse which guards Lerwick Harbour. He might have told you, too, that upon that January morning he was starting with only one passenger on board--an elderly woman who was leaving her home in the south of the island to go and see a doctor at Lerwick, as she had been ill for some months.

The two men who formed the crew of the Columbine returned the same day as they had set sail, in an open boat belonging to their vessel. They said it had been blowing hard when they started, and they had not got more than four miles on the way when the captain was knocked overboard by a sudden jerk of the boom. They quickly lowered the boat, and rowed hard to save him; but, sad to tell, all their efforts were in vain, and they were at length obliged to give up the attempt as hopeless, and were about to return to the ship, when, to their dismay, they saw that she had drifted out to sea, and, with her helpless passenger on board, was now far beyond their reach.

The men pulled with all their strength; but the sea was so heavy, and the Columbine drifted so fast, that the distance between them rapidly increased; and at last they had to turn and make for the shore, which they reached with difficulty in their little open boat.

They told their tale, but nothing could be done to reach the drifting vessel. Towards nightfall, some fishermen on the Isle of Mousa, where opposing currents meet, and the sea is white with foam, saw the Columbine pass, driven along by the wind. She was soon out of sight, and was heard of no more upon the shores of Shetland.

And what became of Elizabeth Mouat, the sick and lonely passenger, who shared the fate of the abandoned ship?

You must hear her story, for, wonderful to say, she lived to tell it; and I know those who saw her safe and sound in her Shetland home, and heard it from her own lips. But she had been to Norway meanwhile, a much longer voyage than to Lerwick.

Below in the little cabin on that Saturday morning, weak from ill-health and very sea-sick from the rolling of the vessel, Elizabeth heard the alarm on deck caused by the accident to the captain, but knew not what had happened. Presently she heard the boat suddenly lowered, and a terrible fear took possession of her mind.

"I am deserted!" she said. "The men have gone off and left me alone in the ship."

With the strength of despair she left her berth, and tried to get on deck; but just as she was about to mount the ladder, it fell to the ground. She

had not power to lift it and put it in its place again, though she tried hard and often. But although unable to get on deck, she was just tall enough to look out of the open hatchway; and as she looked this way and that, neither captain nor crew were to be seen, only the little boat, which the Columbine was fast leaving behind; and she knew that her worst fears were realised, and she was indeed left alone.

Presently she began to consider what it was best for her to do, in her solitary condition, as far removed from human aid as poor Robinson Crusoe upon his island.

There was plenty of food on board, but it was impossible for her to reach it, and she had with her in the cabin only a bottle of milk and two biscuits.

As night came on, and the vessel still drifted, carried by the wind, she knew not where, if Elizabeth had not known how to "cry unto the Lord" in her trouble, how terrible her feelings would have been! As she stood with her head just above the hatchway, ever keeping her anxious watch, and searching the horizon in vain for a sail, the wild seas dashing over the vessel often drenched her through and through. She knew that her cries could reach no mortal ear; and still the masterless vessel drifted, drifted on into the night. But Elizabeth had a strong Refuge. She quietly committed herself and the ship to Him, who is "the confidence of all the ends of the earth, and of them that are afar off upon the sea." And when the long night wore through, and morning broke, again she searched the waste of waters with eager eye, but in vain--no land was in sight, no friendly sail showed white against the red dawn. Far as eye could reach, nothing could be seen but the sky above, and the heaving ocean below.

But from that time, during the seven days and nights which followed, Elizabeth never lost hope. When she told the story of those days, she simply said that she put her trust in God, and that she believed He would bring her safely to land. For a whole week she never slept, but every now and then stood up and looked around for the sail which never appeared, or for the light which, shining through the darkness, should give token that help was at hand. Once indeed she saw the red light of a ship, and her heart beat high; but the vessel went on its way, knowing nothing of the lonely voyager.

The two biscuits were carefully hoarded, but at last not a crumb remained, and for four days she was without food. But in telling her tale, Elizabeth said that she suffered more from wet and from thirst than from hunger. To allay her thirst, she used to lick the drops of rain from the window panes. At last, becoming too weak to keep her constant watch, she tied herself close to the hatchway, fearing lest she might roll away from her post of observation, and be unable to get back to it. And so, for eight days, the Columbine and her passenger--so weak and helpless in herself, so strong in her trust in God--drifted over the wild waves of the North Sea.

It was on Sunday morning, February 7th, that a vessel which had lost her mast came ashore among the rocks near Aalesund, in sight of a crowd of Norwegian villagers. As she drifted in, a woman's head was distinctly seen,

and a brave young fisherman, taking a rope with him, swam out to her, climbed on board, and found Elizabeth tied to the hatchway, still alive, still confident.

She was drawn ashore by the rope, and thus her long voyage to Norway ended. She found herself among strangers truly, who spoke a tongue unknown to her, but was kindly cared for at a farm-house, until she was sufficiently recovered to be sent home to Shetland, where she received a letter which must have, indeed surprised and pleased her. It was from our gracious Queen, and contained a present for Elizabeth of twenty pounds. I am sure you will like to read the letter, so here it is:

"WINDSOR CASTLE, \_March 27th\_, 1886.

"The Queen has been much touched by the account of the sufferings of Miss Mouat, and was pleased to learn, by her brother's letter of the 20th, that she is recovering her strength."

[Illustration: WINDSOR CASTLE.]

Do you not think Elizabeth must be very proud and pleased to show the Queen's letter to those who ask her about her voyage to Norway?

A Norwegian gentleman, writing about the place where the dismantled, unpiloted vessel drifted ashore, says:

"Had not the \_Columbine\_ been steered by an invisible but almighty Hand, she would never have got clear of the thousands of rocks. So furious was the storm that all the boats not taken ashore went down at their moorings; and yet the \_Columbine\_ escaped the network of rocks and skerries, and picked out the only place where she could have beached!"

Elizabeth did not see the Lord Jesus walking upon the waves, and drawing near to her in the dark night, as the disciples did; but surely she heard His voice through the storm, hushing her spirit, and saying to her, as He did to them, "It is I; be not afraid."

I know a little girl, older than Sharley or May, who is fond of repeating a beautiful poem about the storm on the Lake of Galilee. Perhaps you would like to learn it for your next hymn. It is called

"TO YONDER SIDE."

"Behind the hills of Naphtali  
The sun went slowly down,  
Leaving on mountain, tower, and tree  
A tinge of golden brown.

"The cooling breath of evening woke  
The waves of Galilee,  
Till on the shore the waters broke  
In softest melody.



"Now launch the bark,' the Saviour cried;  
The chosen Twelve stood by;  
'And let us cross to yonder side,  
Where the hills are steep and high.'

"Gently the bark o'er the waters creeps,  
While the swelling sail they spread;  
And the wearied Saviour gently sleeps,  
With a pillow 'neath His head.

"On downy bed the world seeks rest;  
Sleep flies the guilty eye;  
But he who leans on the Father's breast,  
May sleep when storms are nigh.

"But soon the lowering sky grew dark  
O'er Bashan's rocky brow;  
The storm rushed down upon the bark,  
And waves dashed o'er the prow.

"The pale disciples trembling spake,  
While yawned the watery grave;  
'We perish, Master--Master, wake;  
Carest Thou not to save?'

"Calmly He rose with sovereign will,  
And hushed the storm to rest;  
'Ye waves,' He whispered, 'Peace, be still!'  
They calmed like a pardoned breast.

"So have I seen a fearful storm  
O'er wakened sinner roll,  
Till Jesus' voice and Jesus' form  
Said, 'Peace, thou weary soul'

"And now He bends His gentle eye  
His wondering followers o'er;  
'Why raise this unbelieving cry?  
I said, To yonder shore.'

"When first the Saviour wakened me,  
And showed me why He died,  
He pointed o'er life's narrow sea,  
And said, 'To yonder side.'

"I am the ark where Noah dwelt,  
And heard the deluge roar--  
No soul can perish that has left  
My res--To yonder shore.'

"Peaceful and calm the tide of life  
When first I sailed with Thee;  
My sins forgiven, no inward strife,

My breast a glassy sea.

"But soon the storm of passion raves;  
My soul is tempest tossed;  
Corruptions rise, like angry waves--  
'Help, Master, I am lost!'

"Peace, peace, be still, thou raging breast:  
My fulness is for thee'--  
The Saviour speaks, and all is rest,  
Like the waves of Galilee.

"And now I feel His holy eye  
Upbraids my heart of pride--  
'Why raise this unbelieving cry?  
I said, To yonder side.'"

McCHEYNE.

THE THIRD DAY.

THE EARTH BENEATH.

"\_He hangeth the earth upon nothing.\_"--JOB xxvi. 7.

"\_The pillars of the earth are the Lord's, and he hath set the world upon them.\_"--1 SAM. ii. 8.

"\_As for the earth, out of it cometh bread: and under it is turned up as it were fire. The stones of it are the place of sapphires; and it hath dust of gold.\_"--JOB xxviii. 5, 6.

Have you ever noticed that some words have two meanings, both their own, but giving us very different thoughts about the things of which they speak, according to the way in which we use them?

It is so with our earth. We may speak of it as the firm ground upon which we stand, and may think of the wonderful time of which we are going to read in our chapter in Genesis, when God caused it to bring forth and bud, and clothed all its waste places, so that it has been ever since the green earth which is so fair to look upon. This is the way in which we generally speak of the earth, is it not?--but we may also think of it, not as it appears to us, but as a great globe hung up in the heavens by the mighty hand of God, who "hangeth the earth upon nothing"; for "the pillars of the earth are the Lord's, and He hath set the world upon them."

If you could look at a star through a telescope, I think the first thing that would strike you is that there is nothing by which it is upheld and

kept in its place. You might say, as you saw it, as it were, hanging in the depths of the sky, "Why, it is hung upon \_nothing\_!"

It is just so with our earth: there is nothing that we can see by which it is supported, no "pillars" for it to rest upon--but yet it is kept in its place. God set it there, and God keeps it there.

The Hindu has tried to account for this in his own way: he says the earth does rest upon something; it is supported upon the backs of four great elephants and when he is asked, "Where do they stand?" he replies, "Upon the back of a huge tortoise." This shows the folly of men who have tried to explain what filled the patriarch Job with awe and wonder, even before God had asked him those questions which He alone could answer. "Where wast thou when I laid the foundations of the earth? Declare, if thou hast understanding. Who hath laid the measures thereof, if thou knowest? or who hath stretched the line upon it? Whereupon are the foundations thereof fastened? or who hath laid the corner stone thereof, when the morning stars sang together, and all the sons of God shouted for joy?"

Once in a time of great danger and trouble, Luther wrote thus to a friend: "I recently saw two miracles; you listen to hear of something startling: some great light burning in the heavens, some angelic visitation--some unusual occurrence; but you hear only this. As I was at my window, I saw the stars, the sky, and that vast and glorious firmament in which the Lord has placed them. I could nowhere discover the columns on which the Master has supported this immense vault, and yet the heavens did not fall! And here was the other miracle: I beheld clouds hanging above me like a vast sea--I could neither perceive ground on which they reposed, nor cords by which they were suspended, and yet they did not fall upon me."

We find it difficult to think of our own globe as a star; but so it is, and when you go out at night and look up at the sky, all covered with little points of light, you may remember that our great earth, with its mountains and forests, seas and plains, and all its cities and towns alive with busy men and women, is but a tiny speck in God's universe; many of those stars which seem so small, as their "twinkle, twinkle" comes from so far away, are themselves suns, larger than that mighty sun of ours which it takes the earth a whole year of days to travel round; and all these wonderful worlds belong to Him "for whose pleasure they are and were created."

Looked at in this way, our earth is but one of a group of eight stars, which have been called planets, or wanderers, because, while other worlds, which are called fixed stars, keep constantly in the same position with regard to each other, these planets are always moving. They have two movements; I think you know that our earth turns round upon itself, as your top does when it spins, and that in this way the changes of day and night come to us; the other movement is that by which it, along with the other planets, travels round the sun.

This yearly journey round the sun which the earth takes is a long one, but so swiftly does it move that it may be said rather to fly than to wander. Shut your eyes and count "One," "two," "three," "four," "five"; in this little moment of time the earth will have got over a hundred miles of its

journey. You see it flies along faster than any bird; and what a noiseless flight it is! How is it that we do not feel it moving? Ah, you must remember that the earth carries you along with it; you know nothing about the rapid journey, and yet you are a traveller in spite of yourself--a traveller round the sun.

All the planets, like our earth, move round the sun, and are kept in their places by means of a wonderful power which we cannot see, but which is one of those "laws of nature," as the rules which God has made for His great universe are sometimes called, about which I told you that they never alter. It is a law, or rule, that, in the world around us, "the same causes always produce the same effects." If you think a little about this, it will become plain to you that it is so, and if you observe carefully you will see that this rule is the same in connection with the smallest as well as the greatest things; if it ever seems that it is not so, be sure that this is only because you do not yet know all about what you have been observing. And now learn a little about the beautiful rule by which the planets are kept in their places.

Two hundred years ago, Sir Isaac Newton discovered that everything in the universe attracts or draws every other thing to itself, and this power or attraction he called "the force of gravitation." I cannot do much more than tell you the name of this "law," but you will learn more about it one day I hope, and see how simple and yet how wonderful it is. An astronomer of our own day says, in his Story of the Heavens, that there are "grounds for believing that the law of gravitation is obeyed throughout the length, the breadth, the depth, and the height of the entire universe," and a little observation and thought will enable you to see something of its working in the world around us.

Do you remember my telling you how fond I was of swimming boats long ago? When my brother and I used to launch our paper boats--not on the river, but in that big tub in the yard--our great difficulty was to keep them from running each other down, and becoming dismal wrecks before they had completed their first voyage. We did not know why, but it seemed as if the vessels of our tiny fleet would drift towards each other, in spite of all our efforts to keep them apart. Have you not found it so with your boats? It certainly was with ours, but we should have been surprised if anyone had told us that as they ran against each other, our paper boats were but obeying the "law of gravitation," each little vessel drawing the other to itself by a power which it had of attracting it. Knowing this rule makes many things plain. If you throw your ball high into the air, it is sure to come down again. Why? Because the earth, which is a much larger ball, attracts it to itself by the law of gravitation; by the same law, the drops of rain in a shower fall to the ground; by the same law, we and all the people upon the globe are able to stand firm on it; by the same law, the great earth itself, the moon, and all the planets are kept in their places. But what is the mighty magnet which has power to draw the earth to itself? It is that wonderful globe the sun, which is more than a million times as large as the earth; and though it is so far, far away--at a distance greater than we can have any idea of--yet by its mighty power of drawing them to itself, makes our earth, as well as the other planets, move round it in the most beautiful order, and keeps them all in their places.

Although Newton felt sure that this unseen but resistless power, of which he afterwards spoke reverently as "the finger of God," kept the moon going round the earth and the earth round the sun, yet he was at first silent about his great discovery; he worked and waited for long years, until he had proved that it was not merely a happy guess, but that he had really discovered the rule which governs the motion of sun, moon and stars. Then he explained the reason why the moon is always moving round the earth, and the earth and other planets round the sun, instead of all moving on in a straight line; it is because everyone of the heavenly bodies attracts all the rest, and thus the smaller move round the larger, all in perfect order and harmony.

[Illustration: SAILING THE BOAT]

You must not think that this force set them all moving; it only governs their movements, the earth pulling the moon to itself, and the sun in like manner pulling all the planets with gentle but resistless power, and keeping them all moving round himself--their glorious centre.

You will learn by-and-by what has been found out about the other planets. All I shall tell you of them now is, that they are, like the earth, quite dark in themselves. The light they give is reflected light from the sun; just like the light which comes to us from another planet, which belongs, not to the sun, but to our earth, and indeed is so near home that I am sure you can find out its name for yourself. Of the seven other planets which belong to the sun, the nearest in size to our earth is one which shines with a lovely soft light, and is sometimes the evening, sometimes the morning star. Ask someone to show you Venus; and I think you will soon learn to look for her in the evening, and to love her pure, calm radiance. This star is peculiarly beautiful in the early morning, when she seems to shine alone in the sky, and reminds us how, in the last book of the Bible, the Lord Jesus speaks of Himself, and says, "I am the ... Bright and Morning Star." What a beautiful name for us to know the Lord Jesus by! There are some children who know Him by that name, and they are watching for that bright star to appear.

I will tell you of one. Her name is Sharley; but she is not May's sister Sharley, and I do not think she is quite so old. This little girl had been obliged to go away from her home, to stay for some time in the Children's Hospital. This is a bright, pretty place, with pictures and flowers and toys. But it was not at all like home to poor little Sharley; and as she thought of her mother and her sisters she sobbed and cried in her little bed, and buried her head under the pink quilt, and refused to be comforted. A lady came to see her, and brought her a picture-book; but still she hid her face, and cried, "Oh, do let me go home!" The lady tried to please her by showing her a stuffed squirrel, and telling stories about how she had seen the merry little creatures, with their bright eyes and red bushy tails, running about in the beech-woods, eating nuts. But no, nothing that she could do or say would win a smile or a bright look. At last she noticed a little Testament lying upon the tray across her bed, beside the toys which had been given her to play with, and she said, "Is that your own Testament, Sharley? Will you find the place and read me your favourite

verse?"

In a moment the little girl stopped crying, and turned over the leaves of her Testament till she came to the very end; and she put her finger on the verse, "Surely I come quickly. Amen. Even so, come, Lord Jesus." As she pointed to the words the lady read them, and then asked, "Do you want Him to come?"

Sharley did not speak, but nodded her head.

"Why do you want to see Him? What has He done for you?"

"He died for me," said the little girl. And then she asked just one question, "If the Lord Jesus hasn't come before Monday, do you think mother will come and take me home?"

I am glad to tell you that little Sharley had not long to stay in the hospital; she soon got well enough, to be allowed to go home. But I tell you about her that you may see that she was not too young to know what the Lord Jesus had done for her, and to be looking out for Him to come--watching for the "Bright and Morning Star."

And now I want you to find one more verse about the earth as it hangs in the sky, a very beautiful verse in the fortieth chapter of Isaiah. "It is He that sitteth upon the circle of the earth, and the inhabitants thereof are as grasshoppers; that stretcheth out the heavens as a curtain, and spreadeth them out as a tent to dwell in." What is meant by the "circle of the earth"? You have learnt that the earth is round, like the sun and moon; for you see how round the globe in the schoolroom is, and you know that it is meant to be as like the earth in shape as it can be made. Besides, you have read of sailors who have made voyages round the world, and brought their ships back again to the very place from whence they set sail. It seems quite plain to you, now that you have been taught so much about the form of the earth, that it must be round. But I wonder whether you have ever thought that, long before a geography-book was written or a globe was made--at a time when no one had ever sailed round the world, but all the wise men thought the earth was flat (except where the mountains and hills were), and that if they could only travel far enough, they would in time get to the world's end--God had spoken of it as round. He had spoken of Himself as the One who "sitteth upon the circle" (or "arch") "of the earth"; and of the inhabitants thereof--all the people who have lived and died upon it--as "grasshoppers"; creatures of a day.

When we learn something about other worlds, and find out that this world, so large in our eyes that we cannot think of anything to compare with it for greatness, is yet so small that it is like a grain of sand in the vast universe which God created at the beginning, we may well ask

"Why did the Son of God come down  
From the bright realms of heavenly bliss,  
And lay aside His kingly crown,  
To visit such a world as this?"

"Why in a manger was He born,  
Who was the Lord of earth and sky?"

The answer to this question is to be found in the verse which you know so well, where the Lord Jesus Christ Himself tells us that "God so loved the world"--this place which is "a little city" indeed compared with other worlds; and the "few men within it"--all sinful people who had gone away as far as they could from Him--God so loved this lost world, "that He gave His only begotten Son, that whosoever believeth in Him should not perish, but have everlasting life." The Son of God gave up "all that He had" to buy back this lost world, for the sake of the treasure which was hidden there. Do you know what that treasure is?

And now we will look again at a verse in the Book of Job, which tells us something very wonderful about the inside of this great globe of ours, upon the fair outside of which we live and move. You would never have thought it possible that such a great ball could be weighed. But by weighing and measuring--not with scales and weights, you may be sure, but by clever ways which are known to learned philosophers--it has been found out that our earth is very, very heavy. The philosophers thought it could not be so heavy if it were made of earth and rocks all through, and they wondered what could be far down beneath the deepest mines, in those secret places which they could not reach. But long before these wise men had begun to weigh and measure, and to guess and wonder, God had said, "As for the earth, out of it cometh bread"--you know that in many places the surface of the earth is rich with waving corn--"and under it is turned up as it were fire."

I remember well when I first heard about this fire always burning at the heart of the earth. I had been told that the world was round like a ball, and yet that people lived upon every part of it. And when I turned the globe in the schoolroom round until I had found New Zealand--that land which is just opposite our own country, as you can see for yourself if you look--I used to think how wonderful it was that the New Zealanders should be there "walking about under my feet," as I had been told they were; and a great desire came into my mind to make a way right through to them, and see what they were like. I believe I thought they were men who walked on their heads, for in those days I much preferred guessing at things I did not understand, to asking someone who knew how to explain them to me. So you see I understood so very little, that I actually thought that by getting up early and working hard it would be quite easy for me, with my little spade, to dig right down to the other side of this mighty globe!

However, one day, before I had made more than an opening to my tunnel, I listened to a conversation about digging deep wells and mines. I could not understand most of what was said, nor did I know the meaning of any of the long words which I then heard for the first time; but there was one thing which I did understand, and this made me stop short in my work, afraid to dig another spadeful of earth. I had thought it would be so delightful to walk through my tunnel, and come out at the other side where the strange New Zealand people lived; but now my great dread was lest I should get to the inside of the earth before I was aware of it, when I had dug perhaps only a little hole; for those who were speaking about it, said how

impossible it was to get very far below the surface,--or, as they called it, very deep into the "crust" of the earth--because of the great heat, which makes the men who work in deep mines glad to throw off their clothes. "The deeper the bore, the greater the heat," they said; and then went on to speak of this crust as if it covered the earth as the shell covers an egg, so that I thought it might perhaps be broken just as easily. "And how dreadful it would be," I said to myself, "if I could get to the inside of the earth and find it all on fire!"

It was a pity that I did not ask a little about what surprised and frightened me so much, and especially that I did not get someone to explain to me the meaning of this new word, the "crust" of the earth. I know now that it is the name that has been given to that part of the earth which is known to be firm and solid--the bed of the ocean as well as the dry land. Beneath this crust lies the inner part or kernel of the earth, and no one knows of what it consists; all that can be done is to examine the rocks which rest upon it, and whether the lowest of these layers of rock has yet been reached, we do not know. If you have ever been to a quarry where the rocks have been blasted and cut away, you have seen a little way down into this earth-crust. I remember once, when I was living in a country warmer than England, seeing a beautiful sight. It was a great quarry in a hillside. In part of it men were busy, cutting out the stone and carrying it away; but all over one side, which was no longer worked, a beautiful vine had woven its lovely green leaves and purple clusters of grapes.

You would have thought, perhaps, that the side where the rough, hard rock was hidden by the fruitful vine, was the only part of the quarry worth looking at; but the other side, where the quarrymen were at work, was very interesting to anyone who would take the trouble to notice how the rocks lay, piled one upon another, and especially to one who had learnt a little about the different kinds of rock of which the earth-crust has been made. Even if you have never learnt much of what is called geology, by keeping your eyes open and your mind awake you may see a great deal in the stones which have perhaps seemed to you most uninteresting. A block of granite from one of the Dartmoor hills, and a piece of slate from a Welsh quarry--how different these two kinds of stone are! We see this at once; but they become much more interesting when we know that each has its own history. The granite is one of the fire-made rocks, so called because there are marks upon it, like letters written long ago, quite plain to those who have the skill to read them; which show that though it is now so hard, it was once soft, as soft as iron becomes when melted by very great heat. The mountains of Devon and Cornwall, the Grampians of Scotland, even Mont Blanc, the "Monarch of Mountains," are made of the grey or red granite which takes such a beautiful polish when cut that it is much prized for buildings.

The piece of slate has quite a different history. It is one of the water-made rocks, in which so many fossils have been found; while in the fire-rocks there are no remains of anything which ever lived. The water-rocks are so called because water has had so much to do with the making of them; for they have been very slowly formed by the gravel and grains of sand which have been washed down by streams and torrents, and left behind in their course. In these slate and sandstone rocks the



wonderful fossil animals, which are to be seen in the Museum, have been found. A fossil means what has been dug out of the earth; and numbers of animals are to be found buried deep in the rocks along the coast of Yorkshire--huge creatures which lived on the earth long, long ago, of which the hard parts, such as bones and teeth, have gradually been turned into stone.

All this is very wonderful to think of, and I am sure the poet, who spoke of finding "sermons in stones," was wiser than he knew; but what will you say when I tell you that one kind of rock--the chalk with which you are so fond of drawing upon the black-board--is made of shells, most of them very tiny ones, which can be seen only by a microscope? What myriads of living things once made their homes in those little shells, and what sort of life they lived, we cannot tell; but there the shells remain in the white chalk, and the microscope will show them to you, as it shows so many hidden wonders in this wonderful world, where the very great and the very small meet on every hand.

Only the other day, May brought me a lovely branch of white coral. "Look," she said, "when baby was out for a walk, a lady gave her this." She thought it very pretty, but she was surprised when I showed it to her through a magnifying-glass, and told her that it had been made by a very tiny kind of jelly-fish; a plant-animal some people call it, of the same kind as the sea-anemone; and she wondered still more when we found in a book a picture of a coral island, and I told her that such little creatures have been busy ever since the world began, constantly building up the coral-rocks. These rocks, which are strong enough to resist the force of the waves, rise out of the sea naked and bare, but are soon covered with green, and become the resting-place of the sea-birds, until at last they are like that lovely island, fringed with tall cocoa-palms, which we saw in the picture. If it were not for the myriads of tiny jelly-fishes, who work on and on, each forming its own little bones from the lime it gets from the sea-water, dying, and leaving its skeleton behind for others to build upon, there would be none of these beautiful green isles of the sea of which sailors love to tell us.

We were speaking of contrasts some time ago; now for a contrast. Beside the coral, with its lovely branching sprays, we will put a piece of coal. You think the coal very black and ugly, not fit to be put alongside the white coral; but let me tell you that there is that in the coal which was once far more beautiful than the coral--which is only a bare skeleton after all--could ever be; for, though coal and coral are alike dead now, both were once full of life.

But the coal, which is certainly more useful than beautiful at present, has had a wonderful past. Besides the fossil-animals which are dug out of the earth's crust, there are also fossil-trees and ferns, and it is of them that coal, which seems only like a black stone, is made. I have read that in a part of England where there are now great coal mines, for a long time no one knew the worth of coal except some old women, who said they could make their fires burn beautifully by putting those black bits of stone upon them. How strange this seems; and what should we do now if we had not these black stones to burn? Coal is generally called a mineral, as all things

which are dug from mines are called; but it is really a vegetable. You may perhaps pick up in some swampy place, a piece of wood, very black, which breaks as you handle it. Look at it well, for this wood is being turned into coal; but for what was once a forest to become a coal-mine takes a very long time indeed, with a strange history of change and decay; yet it is true that the coal dug out of mines is nothing else than trees and ferns and mosses, long ago buried by mud and sand, and so crushed together that they have become like a piece of black stone.

The other day Chrissie had what you would consider a rare treat, for his father took him and his brother down a coal-mine. They put on some of the miners' clothes, and then got into the "cage," and were let down by a strong chain; down, down, until they reached the bottom of the shaft, as the tunnel from the mouth of the coal-pit to the place where men are at work below is called. I have never seen a mine of any kind, but if I ever find myself at the bottom of a coal-pit, I think I shall use my eyes, and see whether, even in such a grimy place, I cannot find something beautiful. I shall hold my safety-lamp high, and look carefully at the roof and sides of the mine, for I have been told that in all coal-mines remains of the plants from which the coal is made are to be found; so I should not be surprised to find here and there in the dark shining walls traces of leaves and branches; and upon the hard clay which forms the roof, beautiful patterns of ferns, which lived long, long ago, and have lain buried for ages.

"In a valley, centuries ago,  
Grew a little fern-plant, green and slender,  
Veining delicate and fibres tender,  
Waving in the wind, crept down so low;  
Rushes tall, and moss, and grass grew round it;  
Playful sunbeams darted in and found it;  
Drops of dew stole down by night and crowned it;  
But no foot of man e'er came that way,  
Earth was young and keeping holiday."

We can speak of the roof and the floor of a coal-mine, because the coal lies in what are called seams, between layers of slate or hard clay. I cannot tell you much about the sedges and reeds and giant ferns, the remains of which have been found in these seams of coal, but I know that they are of the same kind as plants which are now found in damp and warm places, though they were giants indeed compared with them. Some of these old-world plants would not grow in our country now, but there are great mare's-tails, just the same as the small ones which I have often found beside a pool of black water on an Irish bog; and I have read that some plants with stems fifty feet long, which are found in coal, are of the same kind as a pretty little moss which grows upon the mountains almost all over England.

You remember the story about the boy who was brought up in a mine. Now I want to tell you about a little girl who did not live in a coal-mine, but was often taken there by her father. Her mother had died when she was a baby, and as she grew older her father was her constant friend, and loved his little daughter so much that he liked to have her always near him. And

so, though she was only seven years old when he came to work in this mine, he very often took her with him in the cage, and she had leave to stay underground until his work was done and he could take her home again. Children can always find ways of amusing themselves, and this child had a happy time in her strange nursery, and many a merry game she played among the coal. As she grew older her father allowed her to carry a lantern, as the miners did, and she would go fearlessly through the dark passages by herself, until she knew all their windings as well as you know the paths in your father's garden.

But all at once this happy life came to an end: three years had passed, and she was just ten years old, when a great sorrow came to this child. As her dear father was going down the shaft one morning the chain broke, and the cage fell to the bottom of the mine. When his mates ran to the spot, they knew at once that he had been killed by that terrible fall, and slowly and sadly they took up his crushed and wounded body and carried it home. The first thing that the dear little daughter knew about the accident which had made her an orphan child, was when she saw the men, who had worked with her father, coming towards his cottage with their sad burden.

She at once ran to meet them, asking when father would be home; but the sight of their faces soon told her, young as she was, all the truth. When first she understood what had happened she cried with a bitter cry, for her father was all she had in the world. Then, while the rough miners, amid their tears, tried to comfort her, she suddenly knelt down on the grass where they had laid the body and prayed as her dear father had taught her to pray.

[Illustration: THE MINER'S LITTLE DAUGHTER.]

What a touching thing it must have been to see the child kneeling there, and to hear her, in her great grief, say three times over, "Thy will be done!"

One of the miners took her to his home, and they all tried to comfort her. At first it seemed as if she could not recover from the shock, and they feared she would die of grief; but by-and-by she began to try to help the kind woman--who was like a mother to her--in the care of her little children, and at last she got courage to go down into the mine again, to the very place where her poor father had been killed.

But she did not come now to run about and play hide-and-seek among the winding ways; those days were over, and the sorrowful time, which had passed since then, had taught her precious lessons. Her father's Friend was her Friend now, and she loved to carry the Bible, which had belonged to her father, down into the mine, and while the miners were taking their dinner or their short rest, she used to sit beside them and read them chapters and psalms, and so became a little messenger to tell them of the love of God. Do you know a hymn about shining in this world--where so "many kinds of darkness" are found--for the Lord Jesus Christ? I do not know whether this child had ever heard of it, but it is very sweet to see that the Lord had taught her to shine--as the hymn says--"first of all for Him"; then in her little corner in that humble cottage where she tried, in spite

of her own sore trouble, to be a cheer and comfort to the miner's wife; and then He gave her a little corner in the dark mine where she might shine

"Like a little candle  
Burning in the night."

The rough men loved this gentle child who had known sorrow so early. They listened as she read to them, and used to say she was their good angel. If we remember that an angel means a messenger, we shall perhaps think it not a wrong name to give to her, since she read to them God's Book, which is His message to us.

While we were talking about the earth-crust, I daresay you were wishing to know, as I did, how thick it is--how far down the layers of rocks go, and what lies underneath the lowest layer of all.

These are questions which cannot be answered; for no one has ever been able to search so far into the hidden parts of the earth as to tell us what lies beneath those fire-rocks, which are the lowest known, although they are sometimes found upon the tops of mountains, cast up by a mighty heaving of the crust, such as happens when there is an earthquake, or what is called the "eruption" of a volcano.

But what power could be strong enough to heave up solid rocks, and to make the firm ground upon which we tread, and upon which the houses are built, waver to and fro like the restless sea, so that the strongest buildings begin to totter and fall, and the bravest men run for their lives?

It is the mighty power of steam--caused by the great heat far down below--which, when it does come to any part of the earth's surface, makes itself known in very terrible ways.

We do not often hear of earthquakes near home; but in some of the most beautiful parts of the world they are so common that the houses are built only one storey high, and of wood, not stone, because low houses are less likely to fall, and wooden ones are easily built up again, if overthrown. I think you have heard of the boiling springs in Iceland, which burst through the ground, shaking it and making it tremble; just as the steam shakes the lid of the teakettle; and rising almost to the clouds, with a noise like fireworks; and perhaps you may have seen the hot springs at Bath, from which a cloud of steam rises almost in the heart of the beautiful old city, and which are believed to come from a depth of nearly a mile.

Such is the force of this steam that even the bed of the sea has been heaved up by it into a burning mountain, from which great stones are cast high into the air; while down its sides flow melted rocks and metals, forming the lava which, when seen at night, looks like a stream of liquid fire, but quickly cools into a river of mud. All these strange things tell us terrible tales of the great heat which is somewhere in the heart of the earth, and help us to understand the verse which tells us all we really know about it: "As for the earth, out of it cometh bread: and under it is turned up as it were fire."

New Zealand is a country where there are many hot springs, and several mountains which were once volcanoes, but were supposed to have died out. One of these, Mount Tarawera, was situated in what was called the Hot Lake district, because there were not only boiling springs, but pools of hot water there. The Hot Lakes valley was not only a lovely green spot, but it was noted for the wonderful Pink and White Terraces, which were so beautiful as to be one of the sights which people from all countries came to see.

Imagine, if you can, basins of white and pink marble rising one above another, filled with water of the deepest blue, by a warm stream which kept flowing over them in a constant cascade. You would have enjoyed a bath there, I am sure, and would have been interested to see the country-people cooking their food in some of the neighbouring springs where the water came from so great a depth that it was always boiling.

But this lovely place was full of hidden dangers; for miles around these lakes the ground was hot and crumbling, and in many places so thin that if you did not tread very carefully, you might find yourself sinking into hot mud.

It was in June, which you know is winter-time in New Zealand, in the year 1885, that the people of Wairoa, a beautiful place where some missionaries had settled that they might teach the Maoris, were awakened at midnight by a heavy shock of earthquake, accompanied by a fearful roar, which made them rush out of their houses in terror. The sight which greeted them was grand but awful. Ernest has a picture of it in his room; but I suppose it would not be possible for any picture to give an idea of what the poor frightened people saw. Mount Tarawera had been asleep for a hundred and twenty years, so that it was supposed to have burnt itself out, and to be no longer dangerous. But it was awake now: the fearful roar which had aroused the sleepers was caused by its having suddenly burst into flame; and it continued to throw high into the sky fire and mud and stones, while the inhabitants of the peaceful little village saved what they could carry, and then fled away in their night-dresses.

As morning broke, a dense pillar of ashes rose from the burning, roaring mountain; the school-house, where sixty Maori boys and girls used to be taught, was struck by lightning; and while burning, overwhelmed with torrents of hot mud and stones. Sad to say, the schoolmaster and most of his family were killed, the two eldest daughters only being rescued from the buried house. How well it is to know that Mr. Hazard and the four children who were taken out dead from the ruins, were ready, quite ready for whatever might happen, because they knew the Lord Jesus Christ as their Saviour!

God allowed them to lose their lives upon that dreadful day; but for them the eruption of the volcano was only the "chariot of fire" by which He was pleased to take them away in a moment, to be for ever with the Lord, who had loved them and given Himself for them.

The darkness caused by the ashes which fell in a ceaseless shower for eighteen hours, continued till noon the next day, when it was seen that not

only had the beautiful marble terraces vanished, but the whole valley had been blown into the air by the tremendous force of imprisoned steam. A traveller describing the scene of desolation says,[Footnote: Miss Gordon Cumming on "The Eruption of Tarawera in 1885."] "Even living birds were coated with mud, while for some days after the eruption the poor bewildered cattle roamed about this dreary wilderness mad with hunger and thirst, gnawing boughs of trees or decayed wood, bellowing pitifully, and with eyes bloodshot and nostrils choked with greasy slate-coloured mud, which lay an inch thick all over their coats." And of the smiling valley itself, she says: "Where, but a few days previously, the wild fowl were swimming securely among the reeds and sedges which bordered the quiet lakes, there now exists only a chaotic wilderness of cones and craters all in hideous activity, ejecting clouds of pestilential black smoke and showers of stones. One large crater was in full action on the spot where the beautiful Pink Terrace had hitherto gladdened all visitors by its loveliness, and another apparently close to the White Terrace was throwing up masses of black dust and steam, which rose in columns thousands of feet in height."

There is a verse in the hundred and fourth Psalm which tells how God "touched the hills, and they smoke." There are many burning and smoking mountains in different parts of the world, besides those which have risen from the depths of the sea; some of them have destroyed whole cities by hot streams of lava or showers of ashes; there are some whose high peaks are covered with snow, and yet from those snowy heights the fire sometimes breaks forth; and there are others which are called extinct volcanoes, because the fire no longer breaks forth from them as it once did; but Mount Tarawera has taught us not to be too sure that a volcano which has been quiet for more than a hundred years is really extinct.

Hot springs, earthquakes, burning mountains, all tell the same tale: somewhere beneath the earth's surface there is a quantity of heated material, and these "convulsions of nature" which are so terrible in their effects come from the efforts made by it to escape from its prison. A friend who had been in a South American city during an earthquake told me of the terror-stricken feeling which he experienced when he ran out of the house in alarm, only to see buildings reeling and falling, and to feel the solid earth itself rocking beneath his feet, while from beneath came a rumbling noise, and a sound as of the clanking of chains. This trembling and rocking of the earth has led savage nations to speak of some monster underground turning his huge body. Shocks of earthquakes are occasionally felt in England, and in the north-west of Ireland sheets of lava show that volcanoes were once nearer home than we think. The Giants' Causeway, in the north of Ireland, and Fingal's Cave, in the Island of Staffa, off the north-west coast of Scotland, have been made by this lava having cooled and split up into beautifully formed columns, which look like stone pillars.

"BEAUTIFUL THINGS.

"What millions of beautiful things there must be  
In this mighty world!--who could reckon them all!  
The tossing, the foaming, the wide flowing sea,  
And thousands of rivers that into it fall.

"Oh, there are the mountains, half covered with snow,  
With tall and dark trees, like a girdle of green,  
And waters that wind in the valleys below,  
Or roar in the caverns too deep to be seen.

"Vast caves in the earth, full of wonderful things,  
The bones of strange animals, jewels and spars;  
Or far up in Iceland, the hot boiling springs,  
Like fountains of feathers or showers of stars!

"Here spread the sweet meadows, with thousands of flowers;  
Far away are old woods, that for ages remain;  
Wild elephants sleep in the shade of their bowers,  
Or troops of young antelopes traverse the plain.

"Oh yes, they are glorious, all to behold,  
And pleasant to read of, and curious to know;  
And something of God in His wisdom we're told  
Whatever we look at--wherever we go!"

ANNE TAYLOR.

THE THIRD DAY.

THE GREEN EARTH.

"\_The earth is the Lord's, and the fulness thereof.\_"--PSALM xxiv. 1.

"\_Thou visitest the earth, and waterest it:... Thou preparest them corn,  
when Thou hast so provided for it.\_"--PSALM lxxv. 9.

"\_Every tree is known by his own fruit.\_"--LUKE vi. 44.

I want you to read carefully verses 11, 12, 13, and then 29 and 30, of our chapter in Genesis; for in them God has told us of His work upon the THIRD DAY of Creation, when at His word the earth--no longer waste and bare, as when it came up from beneath the waters--was clothed in garments of beauty; "dressed in living green," as the hymn says.

I remember that when we began our morning lesson about the THIRD DAY, we noticed that God caused the earth, which had no life in itself, to bring forth that which was alive; for every green thing which grows upon the surface of the earth, no matter how tiny it may be, is quite different from those rocks which form its crust, about which we have been learning. Rocks and stones are without life, but every blade of grass which you tread under your feet, every blossom which scents the breeze, is alive.

We had a good deal of talk about this, for life is a very wonderful thing; one of those "secret things" which belong to God, and which no one has ever been able to understand. But though we cannot know what this wonderful secret is, we can understand how great a difference there is between living things and those which have never had any life in them. If you were to take a pebble and hide it in the earth, you might water it every day, and the sun might shine upon it, while you waited and waited till you were quite old; but no change would come to the pebble, If you dug for it you would find it a pebble still.

But with a plant, how different! See how those weeds in your garden grow. You may cut them down, or bury them underground--do anything indeed except pull them up by the roots--and still they will force their way through the soil which you pressed down so tightly over them; their leaves will push themselves up into the light and air, and their roots will strike deep into the earth, for every bit of them is alive; as the "Song of the Crocus" says--

"My leaves shall run up, and my root shall run down,  
While the bud in my bosom is swelling."

Long ago, when I was a child, I saw a field covered with beautiful white things, smooth and rounded like the top of an egg, which seemed to rise here and there from the grass. They grew out of the ground, but yet they did not look like any flowers I had ever seen. I was told that the pretty white things were mushrooms, and that I might gather as many as I could in my pinafore, and take them home for breakfast.

You may fancy how delightful it was to search about in the dewy grass, every minute finding a mushroom finer and whiter than the rest; but what puzzled me was the wonder of it--how had they all come there?

They had grown up in the night, I was told, while I had been asleep in my bed; and I knew it must be so, for I had been in that field only the evening before, and had seen nothing there but the sheep, eating the grass and daisies.

The thought of these beautiful white things growing up so quietly in the night-time, when no one could see them, was very wonderful to me, and I only wished that I might stay up all the next night in that field, and see them come, and find out how they grew: I was sure I could keep awake all night!

But since then I have learnt that there are many, many things about which we grown people, as well as you children, may ask questions, and say, "How do they come?" and there is no answer ready for us except that old wise answer--God has made them to be.

I daresay you may have a little garden of your own. Did you ever, in spring-time, make a hole in the soft brown earth, and drop into it a little black round seed? Perhaps last March you put in a good many sweet peas, and then covered each one up in its earthy bed, and left them. People told you not to forget to take care of your garden, and so you often watered the



place where the seeds lay hidden, and at last you saw something very tiny, but fresh and green and full of life, where only the dark brown earth had been the day before. You clapped your hands for pleasure, and ran to tell everybody: "My sweet peas are coming up!" You see you can tell when the seeds are growing, but you cannot tell how they grow; you can water the ground where they are lying hidden from your sight, but when you have done all you know how to do, you must still leave them to God's care; for He alone can make those little dark balls spring up and grow, and blossom in sweetness and beauty.

What wonderful thing it was that went on underground so quietly, while you were asleep or at play, neither you nor I can tell; and this dead-like seed coming to life and springing up into beauty is only one of the many things which go on in this world all around us, seen and known only by God, who says of the seed of His word, sown by His servants--not in the ground, but in the hearts of people--that it is He who "giveth the increase."

We speak of vegetable life as well as of animal life, for I am sure you have not forgotten that plants breathe through their leaves--they drink in water by their roots, and some plants even show that they are sensitive to touch by shrinking if anything comes in contact with them; but how a daisy, with its hardy little stem and its fresh green leaves and "crimson-tipped" flower, comes to grow out of the earth, we do not know at all.

The beautiful leaves, fringed with downy hairs, are the lungs of the plants; and just as the blood runs through the veins at the back of your hand, the sap: which is the life-blood of the plant, runs through some fine veins which you see at the back of the leaf. If this sap were to cease flowing up the stem, the leaves and flowers would soon droop and die.

[Illustration: GREEN PASTURES.]

Look at the sheep, cropping the grass so busily that they hardly lift their heads from the ground. Every time they breathe, they give out air which feeds all the green things around them; and as the green things breathe this air, by the very act they purify it, and give it back to the sheep, fit for them to inhale again.

We see that when God made the world, everything was prepared beforehand. He did not cause the earth to bring forth living things, until all that was needful to keep them alive was ready. Before the beasts of the field were made, the grass, which was to be their food, covered the earth like a soft carpet, and their table was furnished. This is a lesson which we have already learnt, when speaking of "The Ocean of Air"--but it is one of which we cannot be too often reminded.

And now I want to point out to you that in the eleventh verse we read of three kinds of living things which God caused the earth to bring forth. Let us look at them: (1) "grass"; (2) "the herb yielding seed"; (3) "the fruit tree yielding fruit after his kind, whose seed was in itself."

Long ago, when I first noticed these three distinct kinds, I could not understand why there was a difference made between "grass" and "the herb

yielding seed"; for the grass in our fields in autumn is, as little May said, "all full of pips." This was her way of describing those beautiful seeds which hang so gracefully that we sometimes gather the long stalks and dry them for their beauty, that we may have a winter nosegay when there are no flowers to be found. I had forgotten my puzzle about this when, not long ago, I met with a very interesting book which explained that the grass which is spoken of in Genesis as the first thing which the earth brought forth, was not the grass of our fields. If you look in the margin of your Bible, you will see that it is there called "tender grass." You might perhaps think there is not much difference; but words, which are the names of things, are very strong for good or evil. And especially in reading the Bible, it is important to get the very best English word that can be found for the Hebrew words which we could not understand. The verse has been more exactly turned from Hebrew into English in this way: "And God said. Let the earth sprout forth with tender grass."

This word "tender grass" is not the same as that which is used in a Psalm which the children were just then learning, where we read that God "causeth the grass to grow for the cattle." It means rather "the plant that shoots" out of the ground, and would apply to any green thing just sprouting. It is thought that in the word are included all those plants such as mosses and mushrooms, whose flowers are invisible, and which multiply not by producing seed, but by budding, or by means of little living particles, looking like brown dust, which botanists call "spores."

These flowerless plants are of much simpler structure than those which have root, stem, leaf and flower, and produce plants of their own kind by means of their seeds. If you look at the back of a common fern, you will see brown specks, not bigger than silkworms' eggs, beautifully arranged upon it. Each of these is a collection of little cases containing spores, which by-and-by will split open, allowing the spores to fall into the ground.

"Then the spores are the same as seeds, after all"--you say. No; if they were seeds, each would at once grow into a fern. This is what happens, as far as I can explain it to you: from the spore springs a tiny leaf, which roots itself, and it is from this green leaf that the young fern actually grows, until it, as it were, begins life on its own account. The leaf dies down, and the first frond of the new fern peeps above ground, closely coiled up, as you have often seen, if you have been through the woods in spring-time. The earliest forms of vegetable life, then, brought forth by the earth at the word of God were the plants which have no seeds: botanists have divided such plants into groups--the seaweeds and lichens, the mosses, and the ferns.

Of the seaweeds, the lowest of all groups of plants, we were speaking some time ago. The lichens, though such lowly plants, are very interesting, for I have read that every form of lichen is composed of two distinct plants--a seaweed and a fungus--so closely interwoven that you cannot tell where the one ends and the other begins. The lichens range in colour from white to yellow, red, green, brown--and some are as black as that rare black pansy of which I told you. Each kind has its own peculiar way of growing, and these hardy little plants can live where no other plant can--on the hard black lava, on naked rocks, and even upon the highest snow-mountain.

Next time you pass an old gateway or ruined wall, and notice stains of yellow and brown and grey upon it, remember that there the lichens grow; tiny plants indeed, whose beauties are revealed only by the microscope, but each one of them made by God, and given the means of living by Him, just as much as those giants of the forest of which travellers tell us such wonderful tales. You may sometimes find a rock, or the trunk of a tree, encrusted with dry lichen, and it is interesting to know that these plants when they decay form the first mould for mosses and ferns, plants which botanists think of as higher in the scale of vegetable life than the lowly lichens themselves are.

The great family of mosses is found not only near home, but even far away amid the icefields and the snow, where the reindeer searches with its horns for the white moss which is its food, and where Sir John Franklin and his devoted men gathered the black *Tripe de Roche* upon which they tried to live during those dark months when their ship lay fast wedged between

"... those icebergs vast,  
With heads all crowned with snow,  
Whose green roots sleep in the awful deep,  
Two hundred fathoms low."

But prettier than these Arctic mosses are those nearer home. Talking about them makes me think of a place where I wish you and I could go together some beautiful afternoon in winter. It is a lovely little pine-wood near Bournemouth, to which some boys, with whose friends I was staying during the Christmas holidays, wished to take me to see their favourite walk.

[Illustration: ICE-BOUND]

Once when we were starting for our run, on a bright frosty morning, and I was rather hoping I should be taken to the sea, I heard them say to each other, "The Pincushion Wood; that's it; do let us go there." I wondered what kind of place this could be but when we had scrambled through some heather and come to this pine-wood, I saw at once why they had given it its name. Overhead, with their needles against the blue sky, were the pines in their dark solemn green, but under our feet the ground was bright with moss which grew, not on stones or trunks of trees, but all by itself in round balls, soft and firm and cushiony. You may be sure I was delighted with the green pincushions: we gathered a quantity of them, and I took one home with me, but though I watered it carefully, it soon lost its beauty.

These moss-balls lay at the roots of the pines, and we could pick up as many as we pleased; but generally even the most delicate mosses grasp the soil, and clasp their soft tendrils round the stones so firmly that you need a knife or a sharp stone to make them loose their hold. One of the uses of moss is to protect the rocks from the frost, and from the heavy rains which wash them away by degrees. The roots of trees, too, are cherished and warmed by the closely clinging mosses; and by holding the moisture from dew and rain, they form where they grow a little bed of soft mould, and so prepare the way for plants of larger growth.

Do you know the Trumpet-moss, with its red cups each holding its own little dewdrop? Perhaps not, for it is a rare treasure, and needs to be sought for in its own haunts; but there are many green mosses which are very beautiful, and so common that we see them upon every garden wall. There is the Hair-moss, the seeds of which are eaten by the birds, while its delicate tendrils serve as soft lining for their nests: it grows plentifully beside our streams; but far away in Lapland, during the short summer when the flowers all at once burst into bloom, it may be seen in full beauty. The Laps cut this moss in layers and dry it in the sun, to form a soft rug for them to sleep under during their cold nights. Then there is the velvety moss which, like the many-coloured lichen, loves to creep over old buildings, and make the ruined and desolate places bright with a beauty not their own.

Speaking of mosses reminds me of a story which is told us by a doctor named Mungo Park, who was nearly lost in an African desert about a hundred years ago. Day after day he had toiled on, under the burning sun, until he was almost in despair; for he had been robbed and deserted, and felt as if there was nothing left for him but to lie down and die in the wilderness, or become a prey to the savage animals which ranged over the country; and the remembrance of those at home in Scotland who would never know what had become of him, made him sick at heart. As these sad thoughts filled the traveller's mind and took away all his courage, his tired eye lighted upon a tiny tuft of moss, showing green and fair even in the parched soil of the desert. It was the Lesser Fork-moss which grows in our shady woods, and beside our ponds and ditches. We should perhaps hardly notice it unless we were shown its beauty by a microscope, for it is one of the smallest and humblest of things that grow; but as he looked at it, tears of joy came to his eyes. Silently springing up in that thirsty land, the tiny moss spoke to the lonely exile of the care of God for the very smallest of His creatures, whether the restless brown bird of which the Lord Jesus spoke when He bade His disciples not to fear, saying, "Ye are of more value than many sparrows," or the creeping moss which spreads from stone to stone.

In a moment all was changed for the weary traveller. He felt that he was not alone in that great solitude, for God who had cared for that tuft of moss, and kept it green and fresh by means of some hidden spring, surely cared for him, His own child, and would show him the right way out of that desolate place. Thus the burden and the heat were forgotten in happy thoughts of the faithfulness of God; and he went on his way with new courage, and soon found the path which he had lost; but he never forgot the message which the little moss had brought him. Though the whole plant was not larger than the tip of his finger, he managed to keep it safely through all his journeys by land and sea, and had the pleasure of seeing it flourish under our cold skies just as well as it had done beneath the burning sun of Africa. If you are fond of poetry, you may like to read some lines written by the poet McCheyne about this incident.

"Sad, faint, and weary, on the sand  
Our traveller sat him down; his hand  
Covered his burning head;  
Above, beneath, behind, around,  
No resting for the eye he found--

All nature seemed as dead.

"One tiny tuft of moss alone,  
Mantling with freshest green a stone,  
Fixed his delighted gaze;  
Through bursting tears of joy he smiled,  
And while he raised the tendril wild,  
His lips o'erflowed with praise.

"Oh, shall not He who keeps thee green  
Here in the waste, unknown, unseen,  
Thy fellow-exile save?  
He who commands the dew to feed  
Thy gentle flower, can surely lead  
Me from a scorching grave."

The poem has many more verses, but I think these the prettiest. Moss has been spoken of by a poet as the "nest of time"; it has also been called "nature's livery," because the earth is clothed with it; and I have read that Mungo Park's little teacher may be found upon many a wall near London, and also clinging to those great stones which were once part of the walls of far away Jerusalem. It is nice to think that the little green plants, which we have such reason to love--because they are brightest and best in the winter-time, when all our

"Gorgeous flowerets in the sunlight shining,  
Blossoms flaunting in the eye of day,  
Tremulous leaves, with soft and silver lining,  
Buds that open only to decay."

have faded--grow all the world over; even down in the mines of Sweden the shining Feather-moss is said to light up the darkness with a tiny glimmer of its own.

When we were speaking of the fossil animals which are found hidden deep in the "crust" of the earth, you may remember that I told you that upon the hard grey-coloured clay which forms the roof of coal-mines beautifully traced patterns of ferns are sometimes found. I have heard that half the plants the remains of which are found buried in the coal-measures are ferns, but ferns which are now known to us as but three feet in height, appear in those early times of our earth's history to have been grand trees with trunks three feet through, and fronds of great length.

If you want to see tree-ferns growing wild now, you must go to New Zealand or Australia, or to the south of India: but you may perhaps some day have an opportunity of looking at pictures of some of the giant mare's-tails, and other plants with beautifully sculptured stems, of which traces have been found in our own English coal-fields; meantime, look at the vivid word-picture which Dr. Buckland has given of what he saw in a Bohemian mine. He says: "The most elaborate imitation of living foliage upon the painted ceilings of Italian palaces bears no comparison with the beautiful proportions of extinct vegetable forms with which the galleries of these instructive coal-mines are overhung.... The effect is heightened by the

contrast of the coal-black colour of these vegetables with the light groundwork of the rock to which they are attached"--for you must not forget that it is upon the roof of the mine that the impressions of the plants which have been turned into coal are found, not upon the coal itself, though even there they may be discovered by a microscope.

And now leaving the mosses and lichens, ferns and mushrooms, we will turn to the "herb yielding seed," and speak of the great family of grasses; and to begin with I will quote for you two verses which were brought to me by the children when I had asked for texts about grass.

This is one: "If God so clothe the grass of the field, which to-day is, and to-morrow is cast into the oven, shall He not much more clothe you, O ye of little faith?"

And the other is: "The grass withereth, and the flower thereof falleth away: but the word of the Lord endureth for ever."

When we were speaking about the former of these verses, I told them that by "the grass of the field" we must understand not only grass, but the wild flowers which grow upon the green slopes of Palestine in the spring-time, when God

"Lets His own love-whispers creep  
Over hills and craggies steep."

They bloom but for a short time--from February to April; for in May a burning wind from the desert sweeps over the flowery meadows, and in one short day the grass has withered and its flower has faded. All "the grace of the fashion of it perishes," and there is no more beauty in the fields till the return of spring makes them bloom again.

In a country where wood is as scarce as it is in the Holy Land grass and flowers are all cut down together, and burnt to heat the ovens in which bread is baked. The flowers of the field may live but a day, and then wither on their stalks under the hot breath of the desert-blast; or they may be cut down and "cast into the oven." But the Lord spoke of them that He might teach His disciples that they must not be anxious about how they were to live in this world, because God their Father who "so clothed the grass," cared for them much more than for the birds, and all the helpless living things which are never forgotten by Him.

The flowers have no care. Those crimson lilies, which shine like stars among the grass in Palestine in the spring-time, do nothing to make their own rich dress. But God has thought it worth while to clothe them, as well as the daisies of our English meadows, in grace and beauty; and fair and sweet as they are, not for themselves, but as the overflowings of God's brimming cup of love, From His own word we learn to "consider the lilies how they grow," and receive through them the same lesson which the Fork-moss taught the lost traveller.

"For who but He that arched the skies,  
And pours the day-spring's living flood,

Wondrous alike in all He tries,  
Could rear the daisy's purple bud?

"Mould its green cup, its wiry stem,  
Its fringed border nicely spin,  
And cut the gold-embossed gem,  
That, set in silver, gleams within?"

"Then fling it, unrestrained and free,  
O'er hill and dale and desert sod,  
That man where'er he walks may see,  
In every step, the stamp of God."

The verse which speaks of the "withering" of the grass, becomes even more striking if we remember that grass in Eastern lands often grows so tall as to reach to the saddle, as a horseman rides through it. But this tall grass withers away as soon as it is smitten by the burning heat of the sun.

The apostle Peter speaks of all the glory of man as like grass which has withered; and then, in contrast with what so quickly perishes, he reminds of what can never grow old or pass away--"the word of the Lord," which "endureth for ever."

While we were speaking of the verse in Genesis which tells us that "every herb bearing seed, which is upon the face of all the earth" was to be food for man, I asked the question: "What are the grain-bearing plants?"

Every voice at once replied, "Corn"; and certainly corn is one of the most beautiful, and the plant which has in a special manner given "bread to the eater." "But," I continued, "are there not other grasses whose seeds supply food for us?"

The children thought awhile, and then said, "Barley," "rye," "oats"; and presently, thinking of other countries besides England and Scotland, someone ventured, "rice"; and Chris, remembering the tall Indian corn which grows so abundantly in America, suggested "maize."

So we went on to notice (Genesis 1. 29, 30) that corn and grain of various kinds are the food specially prepared by God for man. There was the "green herb" for the animals and birds and creeping things; and for us, the "herb yielding seed." How beautiful it is to see that at the very outset food was provided for man, even before God had made him; and that all through the long years which have passed from that time till now, it has never been wanting. It is true there have been terrible famine years, when the wheat-harvest has perished, or when the rice-crop, upon which the lives of thousands of people in India and China depend, has failed from want of water; and the hand of God in judgment may at times be seen in these years of drought; but through His goodness in giving "rain from heaven, and fruitful seasons," the earth still brings forth food, and will do so, for God's own word assures us that "while the earth remaineth, seedtime and harvest ... shall not cease." It is cheering to think of this when we pass through a corn-field, and admire the red poppies shining here and there among the wheat, and the full ears of corn waving in the sunshine, until the field looks like a sea of gold.

Interesting too it is to see, as Ernest and his friend did the other day, all that must be done ere those waving ears of corn become a loaf such as you see on the table every morning: for in this country we do not feed on "parched corn," as it is described in that lovely story of Ruth the Moabite woman, from whose line descended our Lord Jesus Christ, "Son of David, Son of Abraham."

As they were walking along the road, the boy noticed a large piece of bread which someone had thrown away.

"How wrong to throw away such a nice piece as that!" he remarked to a friend at his side.

"Indeed it was," she replied. "Whoever threw it away never thought how much it cost to make that piece of bread." And she began to tell how the hard ground must be broken by the plough, and smoothed by the harrow, to make it ready for the seed; then, after the seed has been sown and covered up, water, air, and sunlight are all needful, that the roots may sink down deep into the earth, and the green stalks shoot up into the light; so that where there was once only the bare brown field may be seen "first the blade, then the ear, after that the full corn in the ear"--the harvest-field in all its glory. As the "Sower's Song" says:

"Fall gently and still, good corn;  
Lie warm in thy earthly bed,  
And stand so yellow some morn,  
For man and beast must be fed."

Then come the reaping and the threshing, and the winnowing and crushing of the grain, and the making of the flour into bread, and its baking. All this must be done before our tables can be furnished with "our daily bread."

[Illustration: WITH THE REAPERS.]

For the birds, which "neither sow nor reap; which neither have storehouse nor barn," God makes the grass to grow of itself; but all those seed-bearing plants, which He has given to man, must now be cultivated. Rice needs a great deal of water that it may grow; and corn, if no care is given to its cultivation, soon becomes but a poor and useless sort of grass. It must be sown fresh every year in ground which has been made ready for it. Did you ever pluck one of the golden ears from a field of corn, and sit down and count how many grains there were upon one slender stalk? And then did you think that every little grain in that ear was itself a seed which, just as the egg contains the bird that is one day to fly and sing, wraps up within itself a young wheat-stalk with all the golden ears which may wave and rustle when next year's harvest time has come? No longer then the one lonely seed dropped by the hand of the sower into the good soil prepared for it, but many, many grains instead. So true is it that

"A grain of corn an infant's hand  
May plant upon an inch of land,  
Whence twenty stalks may spring and yield,



Enough to stock a little field.

"The harvest of that field may then  
Be multiplied to ten times ten,  
Which, sown thrice more, would furnish bread  
Wherewith an army might be fed."

And such life is there in seed, that even grains of corn which had been hidden away for thousands of years--wrapped up in an Egyptian tomb within a mummy like those you saw at the Museum the other day--when sown still brought forth fruit; not in Egypt where they first grew, but in England. But those grains which had slept the sleep of ages would never have thus wakened into life and fruitfulness unless they had been sown in the earth; for before we can see the "full corn in the ear," the one grain from which so many were to come, must "fall into the ground and die": in darkness and silence and death the plant is born, and begins to show signs of life. Did you ever think of this?

The Lord Jesus once spoke of it to two of His disciples, Andrew and Philip. I do not know whether they understood then that He was speaking of Himself when He said the words, "Verily, verily, I say unto you, Except a corn of wheat fall into the ground and die, it abideth alone: but if it die, it bringeth forth much fruit." "Much fruit"--even that great multitude redeemed by His blood, who shall be with Him and praise Him for ever, as they remember how He died that they might live.

I hope that you belong to the happy company who shall sing that new song in heaven. If you have known and believed the love of God in giving His own beloved Son to die instead of you, and the love of Christ in coming into the world and laying down His life for you, you can say of the Lord Jesus the very words which the great apostle Paul said, when he spoke of Him as "the Son of God, who loved me, and gave Himself for me."

How much there is for us to learn, and how much to admire, in the wonderful works of God! Far, far more than we have been speaking of to-day in the lichens, covering the bare rocks with "cloth of gold," and in the leafy mosses which the birds weave into soft lining for their nests; the palms, pines, reeds, and grasses, and the beautiful waving corn, which is God's special gift to man. But we must now turn to the third division of plants, which is described as "the fruit tree yielding fruit after its kind, whose seed is in itself."

There is a pretty poem which Sharley learnt the other day, beginning--

"I praised the earth, in beauty seen,  
With garlands gay of various green."

When she had repeated it to me, I asked, "What are the 'gay garlands,' Sharley--flowers?"

But no, they could not be, because the flowers are not "green"; so Sharley answered that she thought they must be beautiful trees with which the earth is covered; for their brightly coloured leaves, especially in autumn, are

as gay as wreaths of flowers, with their many shades of red and brown, as well as "various green."

The more we notice the trees and flowers, the more we wonder at their loveliness; for God has "made everything beautiful in his time," whether the rich trees of autumn or the tender green of the spring-time, when all the earth seems young again.

Beautiful indeed this earth must have been; still so fair, even in its ruins; when it came fresh from the hand of God, prepared by Him to be the dwelling place of His creatures; but who can tell how fair it will be when every trace of sin and its sad work shall be gone for ever, and the Lord Jesus, the Prince of Peace, shall reign over it?

And although it is all done so quietly and secretly, and seems so natural to us that we hardly give it a thought, even still more wonderful than their beauty is the way in which these trees, yielding fruit after their kind, "whose seed is in itself," go on constantly, not only living, but producing other living plants, which increase and multiply, each in its turn again producing more and more "after its kind."

Perhaps you save up your pennies, as I did long ago, until you have enough to buy a packet of flowerseeds. As you unfold the packet, and see the pictures of the flowers that are to be, on the little papers inside--the scarlet poppy, the yellow marigold, the blue lupin, and the many-coloured sweet peas--you almost feel as if you already saw these bright flowers blooming in your garden. But open the little parcels one after the other, and what do you find? Nothing bright or sweet or beautiful; only little brown seeds, tiny as grains of March dust, or so light and feathery that your breath would blow them away.

Do you then throw them into the fire, and say they are no good? Not so. You take the greatest care of these little grains. You prepare the earth, and make a soft bed for them, then cover them up, carefully marking the spot with the name of the flower whose seed you have sown there. You water that bare place, and wait to see green leaves push themselves up through the dark soil; for well you know that within each tiny brown seed the flower that is to be, lies hidden.

To see your seed grow, and your plant live and bloom, does not surprise you at all. But how astonished you would be if, in the spot where you had sown white candytuft, you were to find yellow tulips!

Such a thing can never be; for the mother-plant from which the seed came must always produce plants of its own kind. You never saw a bean grow into a cherry-tree, or a pink change into a rose, did you? God gives the seed a body "as it hath pleased Him, and to every seed its own body."

It is true that what are called "varieties" can be produced among cultivated plants, as among birds and animals, by change of food and climate, and by care and training. The same plant will soon look very different if taken from a dry, sunny spot, and placed in a damp, shady corner. I have heard that if plants are moved from their home on the

seashore, and placed in a dry, hot place, their thick, fleshy leaves will in time quite change their character, becoming thin and hairy. In the same way a tree, if given room, will spread its branches wide, but will shoot upwards if hemmed in on all sides. It is important, however, to remember that man has never been able by his skill to produce a new kind of either plant or animal. But we were speaking of your seeds, so tiny, yet so unlike each other. These differences become much more apparent if the seeds are looked at through a microscope, and the varieties in their way of growing are endless.

You know where to look for the tiny seeds of the apple-tree; but may not have noticed, that while they lie safely hidden inside the fruit, the strawberry's yellow seeds are outside. Then some seeds, such as peas and laburnums, grow in pods. Some, like the hips and haws, we must look for between the stalk and the flower, or in the place where the flower has been. You may have seen a hawthorn-tree in the spring all white with its scented blossoms. If you pass by the same place months later, when spring and summer are past, what a change! Where the sweet flowers had been, the red berries, which the birds like so well, hang in clusters. This is what has happened: the wind has blown away the soft blossoms; then the parts beneath them which held the seeds grew larger and turned into berries; the sun shone upon them and dyed them their brilliant red; and now they are quite ripe, and ready for the birds' winter supply; or perhaps one here and there may bury itself in the ground, and become a young hawthorn.

The power of life in the seed is a very wonderful thing. I have read of a grave far away in Hanover upon which a very massive stone was laid, and upon the stone were engraved the words, "This grave shall never be opened." We know that the time will come when the seal of every tomb will be broken, but even now it may be seen that those proud words were written in vain. A seed which had fallen into the grave has grown into a tree, which has actually raised and pushed aside the heavy stone to make room for itself and force its way into the light and air.

I wonder if you ever thought of the fruits which you so much enjoy, as seeds? Such they really are. Almonds and grapes and oranges, yes, and the blackberries of the hedges, are either the seeds of plants or what are called their seed-vessels, because they hold the seed. But fruits like apples and pears have a double use; they were made not only to serve as seed-holders, but God has given them to us for food. And those horse-chestnuts you are so fond of gathering--next time you pick one up just stop and think that in the round smooth nut, which you can hide in your closed hand, lies the baby plant which may one day become a spreading tree like those you have seen in the park. Can you believe that such a mighty tree, with its branches and leaves and blossoms, is folded up in one small horse-chestnut, such as that with which you were playing the other day, whirling it round your head at the end of a string? The life of a plant, could it be told, would be indeed a tale of wonder; and I should like to try to tell you a little more about it, as well as something about how flowers are made; but as we have had so long a chapter, we must end with another story, the true story of what a flower, growing alone in a yard, just springing up in its green sweetness between the flagstones, taught a poor man who was as lonely as itself, and also very unhappy.

He was a Frenchman, and had been in prison a long time, because the Emperor Napoleon considered him his enemy. One day while he was walking in the prison-yard, pacing backwards and forwards, up and down the narrow space which was allowed him, he noticed something green at his feet, and stooping down to see what it could be, found that a busy little plant was bravely pushing its way up between the crevices of the paving stones, to reach such light and air as could be found in a prison-yard. "How could it have come here?" the prisoner thought. A seed must have been dropped by some passing bird, and "the scent of water" from some hidden spring must have caused it to bud and to send down the slender fibres of its roots, with their little sponges, to suck up all the moisture, so that the plant should grow, and shoot up those fresh green leaves which had attracted his attention.

If the poor prisoner had been happy and busy, he perhaps would have thought no more of the little plant; but he was very sad and lonely, and he could not be busy as he had no books to read, and all the occupations which he most cared for had been taken from him. So this living thing was to him like a country in which he was constantly discovering some new wonder and beauty. He loved to watch the lonely plant, which was, to his fancy, a prisoner like himself; and when at last the buds unfolded, and the flowers--such sweet flowers with such gay colours--bloomed, he was filled with delight; he guarded his treasure with the most anxious care, for if a hasty foot had trodden it down, he would have lost a friend which had cheered for him many a sad hour.

But I have not yet told you what this prison-flower taught the lonely prisoner. As day by day he watched the growth of that humble little plant, God spoke to him. He had spent his life without thinking much about God, and when he had thought about Him, he had been like that poor proud man of whom God's word says that he is a "fool," although men may think him very clever.

He had many times said in his heart, "There is no God;" and he used to try to believe that there was no one greater or wiser than a man like himself, and that all that he saw in the world--the mountains, and sea, and all the wonderful works of God--came of themselves; or, as he said, "by chance." He had even written these words upon the wall of his cell, "All things come by chance."

But it was not by chance that he was allowed to see something of the work of God in one little flower. As day by day he watched the leaves grow, the buds unfold, and then the blossoms open in all their fragrance, he knew that God alone could work the miracle of life and growth which was going on before his eyes. His proud, scornful heart was bowed in the presence of a power at which he could but wonder, for it was past all his understanding, and he humbly owned that God had taught him by his pet plant lessons which the wisest men in the world could not have taught.

It was by means of the flower, too, that at last the prison doors were opened, and a message came to tell him that Napoleon had given him leave to go home.

It would take too long to tell this part of the story, but you will not be surprised to hear that, like the African traveller, he could not bear to part with his cherished flower. He carefully dug it out from between the stones, carried it home with him, and never forgot the simple but great lesson which he had learned while in prison.

We have been able to say very little about the "green earth," and the wonders of the work of God on the THIRD DAY of Creation, but perhaps you will understand something of what a student of nature meant when he wrote, "The earth may be looked at as a vast seed-plot of life, seen from the point of view of the Great Sower."

I think you will like these verses which were repeated to me by an old friend who remembered having learnt them from his mother's lips, long ago. They seem just fit to close our chapter about the earth in its verdure and beauty.

"All the world's a garden,  
God hath made it fair;  
Living trees and flowers  
He hath planted there.  
Rain and sunshine giving,  
All His goodness prove;  
There is nothing living  
But has felt His love.

"Every home's a garden,  
Clustering side by side,  
Each to others yielding,  
Flow'rets should abide.  
Word or thought of anger  
Ne'er should enter there;  
Buds of loving kindness  
Opening everywhere.

"Every school's a garden,  
Hedged and fenced around;  
Nothing vile or useless  
Should within, be found.  
Teachers are the gardeners,  
Sowing precious seed,  
Training up the tender plants,  
Plucking every weed.

"Every heart's a garden;  
It should bring forth fruit;  
But foul weeds and briars  
In its soil have root.  
Envy, wrath, and hatred,  
Malice, strife, and pride,  
Lies and disobedience,  
And many more beside.

"Cast them out, I pray, Lord,  
And supply in place  
Gentleness and goodness,  
Lovely plants and grace;  
Patience and longsuffering,  
Faith and hope and love--  
These will bear transplanting  
To the world above."

THE FOURTH DAY.

SUN, MOON, AND STARS.

"\_When I consider Thy heavens, the work of Thy fingers, the moon and the stars, which Thou hast ordained: what is man, that Thou art mindful of him? and the son of man, that Thou visitest him?\_"--PSALM viii. 3, 4.

"\_The day is Thine, the night also is Thine: Thou hast prepared the light and the sun.... Thou hast made summer and winter.\_"--PSALM lxxiv. 16, 17.

"\_Truly the light is sweet, and a pleasant thing it is for the eyes to behold the sun.\_"--ECCLESIASTES xi. 7.

"\_One star differeth from another star in glory.\_"--1 CORIN. xv. 41.

When we had got as far in our reading of the first chapter of Genesis as the fourteenth verse, we noticed that it is very like the third; for both verses begin with those wonderful words which none but God could say--"Let there be."

But there is a great difference between the "light" of the third verse and the "lights" of verses fourteen and sixteen. The sun is called "the greater light," and the moon, which is so very much smaller, "the lesser light"; but in the language in which this part of the Bible was first written, these two lamps which give us light are called by a name which means, not the light itself, but that which holds it; not, as we might say, the candle which gives light as it burns but the candlestick in which it is set.

Let us read again carefully what God has told us about His work on the FOURTH DAY, and I think we shall see, as we noticed in the chapter on "Light," that we are not told that it was upon that Day that the sun and moon were created.

"And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years. And let them be for lights in the firmament of the heaven, to give light upon the earth: and it was so. And God made two great lights; the greater light to rule the day, and the lesser light to rule the night:

He made the stars also."

You remember that in the whole of this chapter which speaks of God's work in creation, the word "created" is used only on three occasions, though in the verse which tells of the creation of man, it is three times repeated (verse 27). And now I want you to turn to the hundred and fourth Psalm, and notice the verses which speak of the Days of Creation: you will see that light is spoken of in the second verse, and in the nineteenth we read--

"He appointed the moon for seasons: the sun knoweth his going down."

Those who know the Hebrew language tell us that the word "appointed" in this verse is the very same as that which has been translated "made" in the sixteenth verse of the first chapter of Genesis--so that we may read, "God appointed two great lights," just as in the eighth Psalm we read, "The moon and the stars, which Thou hast ordained."

We have seen that God could give light without the sun or moon;--an old writer quaintly says that before the sun was made "the whole heaven was our sun"--but He was pleased upon this Day of His creation to command the light, which He had called out of the darkness, to gather round the sun, so that he might, as the great light-bearer in all his splendour "rule the day"; and to cause light from that glorious sun to fall upon the moon, so that she, with her silvery shining, might "rule the night"--both sun and moon thus giving "light upon the earth."

May is fond of repeating a verse, which I daresay you know, about a little girl who, when it was too dark for her to see any more, folded up her work and put away her playthings with a "good-night, good-night" to them; for the time for working and playing had come to an end. "But," the verse goes on--

"She did not say to the sun 'good-night,'  
Though she saw him set like a ball of light;  
For she knew he had God's time to keep  
All over the world, while others sleep."

Yes; this wonderful "ball of light"--so bright that the brightest light we know of looks dull when held up before its dazzling face--is ever, night and day, sending out rays of light and heat, like streams from an overflowing fountain, always making daylight somewhere. When you lie down in your bed, and settle yourself to sleep sound till morning, your little cousins in Australia and New Zealand are just beginning to sit up in theirs, and to rub their eyes, and think it will soon be breakfast time; and in the evening, when their day is done, yours will be just beginning again.

If there were any part of the world upon which the sun never shone, how cold and dark and desolate that forsaken spot would be! If no waves of heat warmed the earth, not a seed could spring up; no plant could live, no tree bear fruit, no flower lift up its head to the kindly light and show its fair colours; for do you not remember we learnt that the colours of flowers all come from the sunlight? Without the sun, the green earth would be

changed into a frozen desert, with nothing living or moving upon it.

In old times the clever Greeks, who knew nothing of the God who made this wonderful star--for the sun is really a star, and the thousands of stars which we see on clear nights are suns, some larger and some smaller than our sun--worshipped it as the god Helios; and the Grecian philosopher who first ventured to say it was not so was tried for his life at Athens for his impiety; yet even he saw nothing in this wonderful light-bearer but a red-hot stone, half as big as his own country. If you have learnt better, if you know that "to us there is but one God, the Father, of whom are all things, and we in Him; and one Lord Jesus Christ, by whom are all things, and we by Him," you can think how good that gracious God has been in not leaving the world in the dark and cold, but giving this great light to shine upon us, and to cheer us by his warmth. For though the sun is so very far away, "there is nothing hid from the heat thereof"; every little leaf, every tiny creature that creeps upon the ground, lives and grows in the life-giving rays of the sun, and would perish without them. Have you ever stopped to think of what is more wonderful than this?

God, who made the sun, is Love, as the text you know so well, tells us; and His love is like His sun, always shining down upon you. All the love and kindness which you have known from the day when you came into the world, a little helpless creature, with "no language but a cry"; all this love which surrounds you and has made your life so happy and bright, comes from Him; for "love is of God," and "God is love."

But it is only when God turns our hearts to Himself, so that we can say that we have "known and believed" His love to us, that we can really thank Him for it. When one, who knew what it was to have had his own dark heart lighted up by this great love, was thinking of these things, he wrote some words which I am going to write down for you, for they deserve to be remembered.

"The creation of the sun," he says, "was a very glorious work; when God first rolled him flaming along the sky, he shed golden blessing on every shore. The change in spring is very wonderful; when God makes the faded grass revive, the dead trees put out green leaves, and the flowers appear on the earth. But far more glorious and wonderful is the conversion (that is, the turning to God) of the soul. It is the creation of a sun that is to shine for eternity; it is the spring of the soul that shall know no winter, the planting of a tree that shall bloom with eternal beauty in the paradise of God." McCheyne wrote like this because he knew that

"When this passing world is done,  
When has sunk yon glaring sun,"

the spirit, that part of man which can never come to an end of its life, will still be living somewhere; and that those only who have been turned to God, and are His children by faith in the Lord Jesus Christ, will live with Him all through that great \_for ever\_ which will go on when sun and moon and all that we can see may have passed away.

And now, before I try to tell you a very little about the sun, I should



like to know whether you have ever learnt any astronomy. My children thought it a hard name, but its meaning is beautiful, for it is only the Greek way of saying, "the law of the stars." Astronomy is the science which teaches us about the heavenly bodies, as the sun, moon, and stars are sometimes called; and all that we can learn about them is very wonderful and interesting, so that the more we know, the more we want to know. But the pleasantest way for you to learn would be if someone would talk to you a little, especially about the stars, and take you out of doors on clear nights, and show you some of those which are best known, so that in time you would learn to look for them yourself; \_that\_ would be a delightful way of beginning to learn.

I remember that I had a great wish to know about the different constellations, or groups of stars; I wanted to know where to find Orion, with his seven brilliant stars, and those other seven stars which form the group called Charles's Wain; from an idea that they are so placed as to give a rough sketch of a waggon and three horses; and the wonderful cluster of the Pleiades--for I had heard of all these constellations; but I did not like the trouble of learning about them in difficult books. One day I met a gentleman who was very fond of sailing about in his yacht, and I thought he would teach me all about the stars, for I had heard that sailors knew them well. But, to my disappointment, I found that my new friend, though he was very kind to me, was not able to answer my questions; he said he did not know much about the stars, and that it was in the old times, before ships were steered by the compass, that sailors learned so much from watching them; though the moon considered in reference to the fixed stars is of very great importance as enabling them to ascertain their position.

Though it is a long time ago, I can remember how surprised I was when I first understood that the sun was a star, and that there are other stars very much like him, but most of them so very far from us that it is not possible to measure their distance. We do know how far our sun--the Star of Day, as he is sometimes called--is from us. Perhaps it may help you a little if I tell you that the astronomers say that if the sun was as far away from us as the nearest of these stars, he would appear but a point of light; but I think you will best understand how great the distance is if I tell you that a train, rushing along at full speed, as you see the express go by, and never resting, day or night, would take two hundred and ten years to reach him.

We cannot be surprised that very little is known certainly about a star so very far off, and yet nearer to us than any of the little points of light which you see so thickly sown over the sky; but we know that he is a great globe, like our earth, only twelve hundred thousand times as large--as much larger, I told the children when we were having our lesson in astronomy, as May's curly head was larger than the little blue bead which I put upon it.

But this great globe is unlike the earth in one respect; for while \_it\_ is in itself quite dark, the sun which is used in the Bible as an emblem of God Himself shines by his own glorious light, and though he is believed to be made of the same materials as our earth, it is likely that they are in a state of very great heat.

Astronomers, who look at the sun through their wonderful telescopes, and so get much nearer to him than we can, tell us that we never see the sun himself; but that what we look at is the bright garment of light which is wrapped around him. They tell us also about great holes which sometimes appear in this bright covering; and they believe that they have actually seen, through these holes, the dark globe which is the real sun. These holes are called spots upon the sun, and very dark they look upon his bright face. The astronomers have long tried to find out what makes the sun-spots, and some of them now think that they are caused by furious winds which make great rents in this bright garment; for they tell us that there are sun-storms far more terrible than any storm that ever raged on sea or land.

It was while patiently watching the movement of these dark spots, through the little telescope which he had made and set up in Rome, that Galileo, nearly three hundred years ago, discovered that the sun moves round upon itself once during twenty-eight days, just as the earth turns round on herself once in twenty-four hours. But he lived in a time when it was believed that our earth was the centre of the universe, and that to say that it was only one of many planets moving round the sun was to deny the word of God; so to save his life, he pretended to give up what he knew to be true, and promised that he would never teach it again.

You remember that our earth has an atmosphere, a globe of air which wraps it round. We are told that the sun, too, has an atmosphere--a colour-globe, as it is called, because it is believed to be not air, but fiery gas. Then, outside this colour-globe, is something very lovely; that corona, or crown, of silvery light, which can be seen only during an eclipse of the sun. But what is an eclipse?

When the moon, which has no light of her own, passes directly between the earth and the sun, so as to hide his face from us, we say there is a solar eclipse, or obscuring of the sun's light. When the earth comes directly between the moon and the sun, instead of the sun's light falling upon the moon, she is eclipsed by the dark shadow of the earth passing over her face. I think you may have watched an eclipse of the moon: a solar eclipse is a much rarer sight, and there is something awful about it: as the darkness deepens, the stars begin to shine out, and it seems so much like night that the cocks and hens have been known to go to roost at midday. It is then, when the bright, dazzling face of the sun is hidden, that his lovely crown is seen, as a ring of soft light appearing all round the dark face of the moon.

Now let us think of some of the things that this wonderful Star of Day does for us. In the first place, he is the great source of light and heat, as he shines, not for us alone, but upon all the other planets--those which are so near to him as to get more heat than we could bear, and those which are so far away that it seems to us as if they must be very cold indeed.

But, if we leave these distant worlds and think of our own, how wonderful it is to know that, as we learnt when speaking of Light itself, not from the sun alone, but from every star, waves of light and heat, like tiny messengers from them to us, are always speeding on their noiseless way.

They travel to us through space, or rather through something finer than air or water, which fills all the room between us and them--for no place in the universe is really empty.

You may be surprised to hear that these messengers come from the stars by day as well as by night; but remember that they are always shining in their places in the sky. We cannot see the starlight waves while the sun's great light is shining upon us; but you know how beautifully they shine on clear nights, when there is neither sunlight nor moonlight to quench their soft beams.

But after all, the stars are so far away that we must think specially of our own star, the sun, as the source of light and heat; he also makes for us all form and colour, and gives us the pictures drawn by his light which we call photographs, and which make us know something of people we have never seen, and places which we may never visit.

You remember that sunlight also helps the plants to sift the air, so that they take from it the part that suits them, and leave behind the part that suits us--that precious oxygen which is so necessary for all animal life.

Then we must not forget the work done by the heat-waves. These are called "dark," because they cannot be seen. They not only strike upon the land, waking up the hidden seed, and warming it into life, but they are the great water-carriers. When we were talking about the clouds we learnt that from every wet place, as well as from the seas, lakes, and rivers, water is constantly being drawn up, so that we can see it again in the fleecy clouds which float across the sky, and again when it comes down in the showers which water the earth--the tiny heat-waves are the messengers which perform this work of evaporation.

When we were speaking about the world of water, we learnt that the moon is the chief cause of the tides, by whose constant ebb and flow the ocean and rivers are purified; in like manner the sun, by causing the winds to blow, keeps the air fresh and pure; but this is a subject rather beyond us. We can, however, remember that one more thing which the sun does for us is to tell us the time. God gave him "to rule the day ... and to divide the light from the darkness," and he marks how long our day is to be, "keeping time," as May's verse says, all the world over--for he is the great clock which tells the hours and the days--a clock which never needs to be wound up, and which we can trust, for it never goes wrong. And he is a constant silent witness to us of the power and the goodness of God, as "day unto day uttereth speech, and night unto night sheweth knowledge. There is no speech nor language; their voice is not heard"--but "the heavens declare the glory of God ... in them hath He set a tabernacle for the sun." If, as we look at our watches, we are certain that men must have made them, how sure is it that God made this great time-keeper, light-giver, and life-sustainer--this mighty magnet that guides and controls the world of which it is the glorious centre!

The sun "divides the light from the darkness" by being seen by us or hidden from our sight. If you watch, after the sun has risen in the morning--and

you can watch him in the winter, when you are often up before he is--you will see that he seems to climb the sky, always mounting higher and higher, until he is shining right above your head. Then, as the day goes on, and it gets towards afternoon, he seems to go down, down, until he sinks into the far away place where the earth and sky seem to meet, and we see him no more. It is while he is hidden from sight in the far west, behind that line which we call the horizon, that night wraps us in its deep shade; for the sun, the day-star is, gone.

I wonder whether you have ever thought of this darkness, which would be so dreadful did it last long, as one of the blessings which God has given us. The night is the time of sleep and rest for animals and plants, as well as for weary men and women, and children who can get tired even with their play. God watches over you while you sleep--"the darkness and the light are both alike" to Him--and you get up in the morning fresh, and ready for a new day.

It is while we are in this world, which is a place of toil, and labour, and sorrow, that we need the rest and quiet which the still, dark night brings; but God has said that there is a rest for His people, His Sabbath, which can never be broken; and when He speaks, in the last book of the Bible, of the bright, golden city, He says, "there shall be no night there."

Not long ago a boy was dying. He had been ill a long time, and all through the hot summer nights he could not sleep, for his weary cough kept him waking. Frank had not much to cheer him, for his house was in a noisy street, where the carts were constantly rattling to and fro; and very little fresh cool air found its way to the room at the top storey, where he lay on his bed, often suffering and always very tired.

Once, when someone brought him some flowers, he was so delighted that he buried his poor pale face in them, and seemed as if he would drink in their sweetness.

"Oh, I do love roses!" he said; and the flowers came as God's own gift to him, in that poor place where nothing green was growing. But better than the flowers was the message which came with them.

The lady who sent them from her garden was sure that Frank knew the Lord Jesus Christ as his own Saviour, and that he was on his way to be with Him, and so she sent him those precious words which He spoke to His disciples at Jerusalem, but which belong also to every one who is a child of God through faith in Him--"The Father Himself loveth you"--this was the message which was sent with the flowers; a beautiful message, was it not?

But I wanted to tell you about the last day of Frank's life in that poor room in the noisy street. He was very weak and tired, and could not bear to talk much; but his father sat by his bed, and read to him the last chapter of Revelation. When he came to the words, "And there shall be no night there; and they need no candle, neither light of the sun; for the Lord God giveth them light," he stopped and said as well as he could, for his heart was sore at the thought of the parting which was drawing so near, "Frank, my boy, this is your last night; you are going where there is no night." It

was even so. Before morning came, Frank's redeemed spirit had gone to be "present with the Lord."

Do you know a hymn beginning

"Oh, they've reached the sunny shore,  
Over there!"?

One of the verses comes to my mind when I think of those last words which Frank's father read to him. The hymn speaks of the "street of shining gold over there," and then goes on--

"Oh, they need no lamp at night,  
Over there!  
For their Saviour is their light,  
And the day is always bright,  
Over there!"

There will be no need of the sun to measure the time when that eternal day has come; but now you know that his presence or absence makes our days longer or shorter. In summer, when he is sometimes above the horizon for sixteen hours, what beautiful long, light days we have! But in winter, when he rises late and sets early, our days are sometimes not more than half the length of the longest summer day.

I remember we had rather a long talk upon a difficult subject, after we had considered how the sun measures the length of our days. We were speaking of the verse which tells us that God said, "Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days and years."

I am afraid I did not make this clear to the children, for it is difficult to understand how the sun makes one season different from another; but I will just tell you a little about it, and you may learn more by-and-by.

You know that there are four seasons: the Spring, when the grass begins to shoot forth its fresh blades, and the trees unfold their buds; the Summer, when the roses bloom and the fruits ripen; the Autumn, when the corn and fruits are gathered in; and the Winter, when the earth rests, often closely wrapped in a soft mantle of snow.

All these changes pass before our eyes. But if we wish to understand how it is that the sun is the cause of one season being so different from another, we must remember that as the earth takes its yearly journey round the sun it changes its place, getting nearer to him or farther away from him. In our summer-time the part of the earth where we live is turned more towards the sun, and so gets more of the light and heat which have their home there, than at any other time. Our winter days are so short, because at that time we are turned from the sun more than at any other. And in the spring and autumn we are not so much turned away from him as we are in winter, nor so directly in front of him as we are in summer.

You must remember also what you learnt about the motion of the earth, and

how things are not what they seem. You know that the earth turns round once a day, though it seems as if it stood still, and the sky, with its sun and moon and stars, turned round.

When you watch the rising sun, remember that, though it seems actually to climb the sky, and to mount higher and higher as the day goes on; and then, when it is setting, to go slowly down, down, behind the far away hills or the shining waves--it is all seeming. Just as, when you are going along in a fast train, the fields and trees and sheep all seem to be in motion, flying past you; yet you know that you are moving as the train moves, and flying past them; so it is not the sun moving across the sky which makes day and night, but these changes are caused by the movement of our earth, as she spins round upon herself like a great top.

You remember that Galileo was accused of denying the truth of the word of God, because the Bible speaks in many places of the sun "arising" and "going down." His accusers forgot that God does not teach us astronomy, but speaks in His word of things as they appear to our eyes.

We have seen that our earth, with her faithful companion the moon, is not only the traveller round the sun; he is the great centre, and around him all the moving-stars, or planets, travel in their varied paths. But the moon has a little journey of her own to take besides this long one, for she travels round the earth, and takes nearly thirty days on her way.

You know that the moon is always changing; you can never see it for two or three nights quite the same, but it seems each night a little smaller or a little larger than when you last saw it. When you looked out of the windows the other night, just before you went to bed, it was a very young moon indeed that you saw--not more than two days old, as we say in reckoning the moon's age. How small and thin it was--just like a curving rim of pale light upon the dark sky; but as you watch this crescent--or growing--moon, you will see it constantly getting larger and brighter, until from being half-moon it has become full-moon, for it faces the sun, and is bright all over that part which is turned towards you. When we speak of the "face of the moon," we mean that side which is always turned towards us. But why does "the gentle moon" always turn the same face to us? Astronomers tell us that it is because she also turns slowly round on her own axis while she is travelling round the earth. How this is, I don't think I can explain to you: but it is true that we can see only one side of the moon, that side which catches the sunlight, and that hardly anything is known about the other side.

Next time the beautiful moonlight nights come, remember, as you watch all these changes, that this "waxing" and "waning" of the moon comes to pass, not because she really changes her shape, but because, as she goes round the earth, we see sometimes more, sometimes less of the bright part which is lit up by the sun. The moon is dark in herself, like our earth; not like the sun, and those stars which shine by their own glorious light; if she had light of her own, it would be full moon every night; but all that soft brightness which makes everything look so beautiful in the quiet moonlight, really comes from the sun. When the sun has gone down, as it were, into the sea, or has disappeared behind some distant mountain, how do you know that

there \_is\_ any sun? Look at the moon "walking in brightness," and remember that it is only as the light of the absent sun falls upon her and is reflected from her face (just as Chrissie said he had often seen the light of the setting sun thrown back from the windows) that she can shine at all.

[Illustration: "YON CRESCENT MOON, A GOLDEN BOAT, HANGS DIM BEHIND THE TREE, O!"]

Little children love the moon. I have seen a baby who could hardly speak, clasp her tiny hands and call out, "Have it! have it!" as she saw it glow like a lamp behind the trees; and we do not lose this love as we grow older.

When we remember that the sun is four hundred times farther away from us than the moon, it makes our earth's silent companion seem very near by comparison; but still you will not think the journey to the moon a short one, when I tell you that if you could travel through the fields of air, rushing along in a fast train, never stopping day or night, it would be eight months before you got to your journey's end. And when you did get there you would have arrived at a more desolate country than you ever dreamed of--a place much like what we might imagine our earth would have become if there were no water, no air (for if there is air, it is so thin that no creature like any we know could breathe it), no greenness or beauty, though there might be scenery grand in its awfulness.

Have you ever looked through a telescope at the moon? I have. Last summer I was staying at a seaside town, and one evening I noticed a crowd gathered on the sands. As I came nearer, I found that a man was showing the moon and planets through his telescope to any who wished to see what they could see. He was selling peeps through the telescope, which was a pretty good-sized one, at a penny a peep. Now, though I had read a great deal about the moon, and had seen in books photographs of what are called lunar landscapes, I had never once had a chance of looking at her face through anything but a bit of smoked glass, at the time of an eclipse.

So I paid my penny, and when my turn came I stood upon the stool and had my peep. I can only tell you that the moon did not look nearly so beautiful to me through the showman's little telescope as she did when my peep was over, and I saw her once more sailing through the deep blue of the sky, the queen of night indeed.

I had read that astronomers had found that the nearer their great telescopes brought them to the moon, the more like a barren rock she became, and when I had this nearer view of her than ever before, she looked to me just as she had been described, like "a burnt-out cinder."

You know the shadowy figure which you can see, sometimes more distinctly than at others, on the face of the moon (when I was a child I was told that it was "the man in the moon!"), this appearance is caused by deep valleys, or by the shadows of terrible mountain peaks, which were once volcanoes, throwing out smoke and lava. While I was looking through his telescope, the showman pointed out to me two of the highest of these peaks, and told me their names, that is the names which the astronomers had given them; for

these rocky heights have been marked upon maps of the moon, just as the Welsh mountains are marked upon the map of England and Wales. Upon these maps we can find Mount Tycho, Mount Gassendi, Mount Copernicus--all of them extinct volcanoes--and the name of Apennines has been given to a vast mountain-chain; and the heights of all these mountain peaks have been ascertained by measuring the shadows cast by them. There are oceans and seas also marked upon these moon-maps, but they were named at a time when it was not yet known that they were great plains; for, as I told you, no trace of water, cloud, or even mist has been discovered there.

Are you sorry to hear that the moon which looks so lovely to our sight, is found by those who can get a nearer view to be such a weird and desolate place that it seemed as if only death reigned there? I know I was, when first I read about it, and saw a picture of the moon, and wondered at its bare mountain peaks, with their rugged craters and dreadful precipices, and its "Ocean of Storms" and "Lake of Death," as two of the sea-like plains have been called. I wondered how it could have become, as it were, like a dead earth; but this is one of the things which God has not told us about. What He has told us is that He made this "lesser light to rule the night," and as she moves over the sky in her calm silent beauty, she speaks to us of His goodness in giving not only the sun to rule by day, but the moon and stars to rule by night, those wonderful stars whose silent voice is ever making known His power, and telling of His glory; as the poet Addison has beautifully said--

"For ever singing as they shine,  
The hand that made us is Divine!"

This is a long chapter, but we have been speaking of a vast subject, and before I close it, I want to refer to two wonderful things about the stars, to which God draws our attention in His word. He tells us that "one star differeth from another star in glory," and astronomers have discovered that there was a deeper truth than they at first imagined underlying these words.

But what I specially want to speak of for a moment is the number of these heavenly bodies, and their distance from us.

In the hundred and thirty-seventh Psalm, two verses are placed close together, the one speaking of the power and greatness of God, the other of His tenderness and compassion towards His creatures.

"He healeth the broken in heart, and bindeth up their wounds."

"He telleth the number of the stars; He calleth them all by names."

And in the Book of Job we read--

"Is not God in the height of heaven? And behold the height of the stars, how high they are!"

There are wonderful things to learn about the colour of the stars, some yellow like our own sun, others of a dazzling whiteness, and others giving



out beautiful rainbow-coloured light. But these wonders you must study by-and-by; just now we will speak first of their amazing number, as they appear to our eyes when by the help of the telescope we peer deeper and deeper into the blue depths of the sky. When alluding to the stars in a general way we include the seven planets--one of them our own earth--which move round our sun, and are as it were so near home that five of them may be seen without the telescope--though not more than three are visible at the same time--and also those myriads of "fixed stars," all of which are suns, many of them much larger than our own glorious sun, and removed from our ken by distances which our minds refuse to grasp.

I have been told that the number of stars which can be seen with the naked eye is five thousand, but that only half that number are visible at the same time.

If you ask me how many can be seen with the help of the telescope, I cannot tell you, because more powerful glasses are constantly being made, only to discover worlds beyond worlds, ever new and more distant, strewn in space like golden dust, while stars hitherto invisible through the most powerful telescope can now be made to leave the impress of their rays upon the photographic plate--so that a great astronomer of our time can show us pictures of "invisible stars."

God who made them, God who has appointed to each its own path through the heavens, and also guides and controls each world and system of worlds in its course, so that in all His universe there is no jar, no clash, no being before or after time--He alone can tell their number.

And when we consider their height, their amazing distance from us and from, each other, the wonder only grows.

If we think of the worlds hung in space like our own, our nearest neighbour among them, the "red planet Mars," is thirty-five millions of miles away, while the grand planet Saturn--the "ringed world"--though lighted up by our sun, is so distant, so "\_high\_," that the ever-hasting traveller whom we imagined some time ago rushing through space at the speed of an express train, would take two thousand years on his endless journey. Yet Saturn's rays actually come to our eyes from this vast infinity of distance--while the light of the nearest star--and you know we say "quick as light"--takes more than four years to reach us.

These things, so far beyond our scanty thoughts to conceive, are indeed too great for us, but how simply the Bible speaks of them--

"By the word of the LORD were the heavens made; and all the host of them by the breath of His mouth."

"By His spirit HE hath garnished the heavens."

"It is HE that buildeth His storeys in the heavens."

In the next chapter you will read a true story which I told my scholars as a reward for their attention while we had been speaking on a very difficult

subject. I hope you will be as much interested in John Britt as they were.

Here are some beautiful verses, speaking of the way in which "the heavens declare the glory of God," and my story shows how they may "utter forth a glorious voice" to ears closed to every earthly sound.

"The spacious firmament on high,  
With all the blue ethereal sky,  
The spangled heavens, a shining frame,  
Their great original proclaim.  
Th' unwearied sun, from day to day,  
Doth his Creator's power display.  
And publishes to every land  
The work of an Almighty Hand.

"Soon as the evening shades prevail,  
The moon takes up the wondrous tale,  
And nightly to the list'ning earth,  
Repeats the story of her birth:  
While all the stars that round her burn,  
And all the planets in their turn,  
Confirm the tidings as they roll,  
And spread the truth from pole to pole.

"What though, in solemn silence all  
Move round this dark terrestrial ball;  
What though no real voice nor sound  
Amidst their radiant orbs be found;  
In reason's ear they all rejoice,  
And utter forth a glorious voice;  
For ever singing as they shine--  
The hand that made us is Divine."

ADDISON

STORY OF A DEAF BOY WHO HEARD THE SUN PROCLAIM THE GLORY OF GOD.

This story is about an Irish boy who was deaf and dumb. Do you know what that means? Thank God, you who cannot know. I have been in a school where every scholar was deaf and dumb. These children had been patiently taught the finger language, and they had also learnt to express themselves by the quicker language of signs, so that they could understand a great deal, and could do many clever things; but it made me very sad to see so many of them at once, for I knew that this world was to them a silent world. They could see people speak and smile, but never hear one sound; they might watch the fingers of anyone who was playing the piano move quickly over the keys, but not one note of music could reach them. Think how sad it must be never to have heard your mother's voice, never to be able to speak to those you love except by signs, which can tell so little of what you want to say, even

if they are understood. Ah, you cannot tell \_how\_ sad it is! Ernest and Sharley and May were with me when we went to the school; and when some of the elder boys acted little plays, just as you might act "dumb charades," to amuse the visitors, they were delighted with their cleverness, and laughed heartily; and I daresay the boys were pleased to see them laugh, though they could not hear them. These boys spoke very quickly on their fingers, and wrote beautifully on the black board, in answer to questions which they were asked. I do not remember what these questions and answers were; but I know we all thought some of the questions too difficult, and wondered at the good and thoughtful answers which were given. They reminded me of the reply to a difficult question I once saw a deaf and dumb boy write.

The teacher of his school asked the visitors who had come to see it, to put any questions they liked to the boys. Some questions in history and geography and arithmetic were asked and answered; and then a lady said, "Ask them to tell what is the amount of the Christian's riches."

There was a pause; but presently a boy of fourteen stepped forward, took the chalk, and wrote this text as the answer: "Having nothing, and yet possessing all things." I think he must have known what it is to be "rich unto God."

It is sad to think that when the ear, that "gateway of knowledge," is shut, a poor child may, for want of teaching, and often for want of love and sympathy, grow up almost like an animal; his friends thinking him stupid, because he cannot ask questions or tell anything that is in his mind, until at last he really becomes stupid, and his mind grows dull from want of use.

I am glad to tell you that a way has lately been found, by which children who have never heard a sound may be taught, not only to understand the speech of others, but to speak themselves. It is true that their talk sounds strange and unnatural, and is not easy to understand, but where this method is known it makes a wonderful difference in the lives of the poor children who have been so cut off from intercourse with others. By carefully watching the lips of their teachers, those who learn this "lip-reading" can tell what is said, and I have seen them write it down, just as you would write a dictation lesson; and quite as correct, though they only see the words, and you hear them. But before they have learned to understand in this way, and still more before they have learned to speak, great patience is needed, both in teachers and children. I have heard that in the schools where lip-reading is taught, the children are forbidden to make signs to each other or talk on their fingers, and so some of them learn this much better plan wonderfully quickly.

Sometimes children become deaf after a fever, sometimes from a fall or a heavy blow, or from a fright; some are born so. I do not know how it happened in the case of this boy whose story I want to tell you, because the lady who has written an account of him never knew him till he was eleven years old; but I think he must either have been born deaf, or have lost his hearing when he was a baby, for he had never spoken a word, and up to the time when his story begins he had never been taught anything. His name was John Britt, but everybody called him Jack; not that it mattered

to him what, he was called, for he had never heard his own name, nor the shouts of the boys with whom he played, nor the crowing of the cocks, as they flapped their wings in his mother's yard; all the world was dumb and silent to poor Jack.

When he first came to the house of the lady who was to be such a kind friend to him, Jack looked a very stupid boy. I am sure he was shy too, for he had never before been in any house but the poor little cottage where he was born, or the cottages of the neighbour folk; and when this lady from England tried to make him understand that she wanted to be friends with him, he kept looking round at all the fine things in her drawing-room. Some people would have thought him a very rude boy, but she only watched him with pitying eyes, and longed to teach him about God. But how could she begin to teach him, since he could not hear a word she said?

This was what May was most anxious to know; and I could not tell her how the very beginning was made, nor how Jack liked his first lesson. It must have been a very difficult task, but you know what you have often heard, "Where there's a will there's a way." Jack's lady greatly longed to do something for the poor boy; she was deaf herself, and was obliged to use an ear trumpet, by which the voices of those who spoke to her were brought nearer to her ear, and perhaps this made her pity one who had never heard at all, more than she might otherwise have done. But God had given her a feeling of love and tenderness towards him, and a great longing and earnest purpose to help him, and He showed her the way to put His truth within the reach of this poor boy, whose life had been almost as lonely as if he had been, shut up in prison, and gave her faith and patience, and courage to undertake what seemed a hopeless task. One of the things she did was to get a box of letters, and she held Jack's hand while he copied them on a slate--I think this must have been his first real lesson--and when he had copied the letters a great many times, without any idea of what he was doing, but just to please his kind friend, she took the three letters D-O-G and put them together. Her pet dog was lying in his basket by the fire, and she pointed to him, and then pointed to the letters, and after she had done this over and over again many times, she saw that the boy was beginning to understand that the letters, in some strange way, must have something to do with the dog. When this step was gained, she threw the D, O, and G back into the box, and Jack had to pick the three letters out, one by one, and put them together again. Then, when this word was quite learnt, she taught him the names of other things which he knew--all in three letters--and last of all showed him how to make the letters on his fingers, teaching him what is called the deaf and dumb alphabet.

All this seemed a pleasant game to poor Jack, and he little thought that he was being taught to read, and to speak on his fingers while he was playing at it. As time went on, the boy became very quick at this game; he knew how to write a great many words, and to spell them in the finger alphabet, and the more he learnt the more he wanted to know. He now began to bring all sorts of things to his teacher, spelling "W-h-a-t, what," on his fingers again and again, until she had taught him their names. She saw that his mind, which had been almost asleep, was fast waking up, and she prayed God to show her how to teach this child not only words and names, but that "fear of the Lord" which "is the beginning of knowledge."

Jack's lady well knew that though he was so clever and quick at learning, he knew nothing about the God who had made him for Himself, nor about the Lord Jesus Christ who had paid such a price--His own precious blood--to redeem poor Jack, and buy him back for God. She never forgot while teaching him, that he had within him a priceless treasure of which he knew nothing--that immortal spirit which must go on living always, somewhere--and so, more and more earnestly her cry went up to God: "Teach me how to teach this boy about Thee!"

At last the opportunity came. One day Jack pointed upwards at the sun, and showed by signs that he wished to know who had made that great light in the sky--had his lady made it?

She shook her head, as he next made signs for the names of two or three people, asking whether the sun had been made by them; and then she pointed to heaven and spelled G-O-D. She told him three things about God: He was great, He was kind, He was always looking at Jack.

Soon after this the boy came again with his eager "\_What? what?\_"--and explained that he could not find out how the sun was made, because it was so bright that he could not keep looking at it; but he said he knew all about the moon. It was rolled up into a ball and then sent across the sky, just as he would roll a marble along the floor. And the stars--he knew all about them too; someone had cut them out with a pair of scissors, and stuck them into the sky.

I need not tell you that the children, who had just been learning that the stars are suns, were much amused at this notion of Jack's.

And now this poor boy began to search for God. He came to his lady and told her that she was "bad Ma'am," and had told what was not true; for he said he had been everywhere to look for God, he had even got up in the night to try to find Him; but nowhere, in the streets or in the fields, had he seen anyone tall enough to reach the sky, so that he could put up his hand and stick the bright stars there. And so he repeated many times, "God, \_no\_; God, \_no\_," until she could not bear to hear him; for she knew that Satan was trying to take away from him the thought of God, and make this poor boy like the fool of whom the fourteenth Psalm speaks, who "said in his heart, No God." Jack's lady was silent, for she knew not what to say; but again she prayed to God to teach her how to teach him; and then she did what the boy thought a very strange thing, and I am sure you will think it so too.

A pair of bellows was hanging beside the fire; she took them and began to blow the hot coals into a ruddy flame. Then suddenly she turned to Jack and blew puff, puff, at his hand. He did not like the cold air, and shrank back. When she blew again, saying, "What? what?" just as he had done, he got angry and said she was bad, and it made him cold. She still pretended to be very much surprised that he should feel anything uncomfortable, and looked all over the bellows as if in search of something; then she blew again, and explained that she could not see anything, repeating just as he had done, "Wind, \_no\_: wind, \_no\_."

With joy and wonder she saw that her lesson had been understood. Putting two fingers side by side--the only way which he could think of to express likeness--Jack repeated over and over, "God like wind; God like wind."

After this he often spoke of God; once when he had been trying to look at the sun, he shut his dazzled eyes and spelt on his fingers, "God like sun." The lightning was to him "God's eye"; the rainbow, "God's smile"; and of living creatures he would say, patting them kindly, "God made, God made."

About this time, while Jack's lady was still praying for him, and asking God to show her how to teach him the sweet story of the love of the Lord Jesus Christ his Saviour, a fever came to the place, and the boy saw the strange and sad sight of many funerals passing along the road, as one and another of those whom he had known when they were strong and well, fell sick and died. One day he spoke about them, asking by signs whether they would ever open their eyes again. Without answering his eager question, the lady took a piece of paper and began to draw, and Jack stood by looking at her. It was a strange picture, and she went on explaining it as she drew. First Jack saw a crowd of people--men and women, boys and girls--and his teacher told him to look at them well, for he, Jack, was in that crowd--everybody was there. Then she drew a great pit, and out of it came flames; and she told him that all in that crowd were "bad, bad," and that God was very angry with these bad people, and said they must all go into that dreadful pit.

Poor Jack looked in her face with a frightened stare; he knew that he was in that crowd, that he was one of those bad people. "Must I go there?" his anxious look seemed to ask. Still she did not speak, but went on drawing, and as she drew one man, standing alone, she told Jack that He was the Son of God, come down from heaven--come to die instead of that crowd of bad people, so that they might be saved from that dreadful pit. Then it was her turn to look anxiously into the boy's face. Had her poor Jack understood the picture?

Yes, he had understood; and his next question showed that he was thinking earnestly of what she had told him.

Pointing to the crowd of people, he said they were "\_many\_, very many"; but the Man who come to die instead of them was "\_One\_, only One"; and then again he asked, "What? what?" in his eager way.

How should this question be answered? How should Jack be shown that while all in that crowd of people had sinned--all "come short of the glory of God"--the Holy One who came to do God's will and to give Himself a ransom for them, had glorified Him on the earth, and finished the work which His Father had given Him to do?

His teacher did not now draw a picture; but she made one in another way. There were some dead flowers in the room; taking a pair of scissors, she cut them up into little bits, till they lay in a brown heap on the table. Jack watched her do this, and then he saw her take from her finger her gold ring, and lay it down beside the brown heap. Pointing to the dead flowers, she said, "Many"; pointing to the ring, she said, "One"; and then asked,

"Which will you have?"

With a laugh of delight, Jack made her see that he understood this picture also. The brown heap of worthless, withered flowers was like that crowd of people--"many," but all bad; the ring, all of gold--only "one" thing, but so precious--was like Him who died to save them; and over and over again he spelt, "One! One!"

Then presently, as the thought came to him that he, Jack, was in that crowd; that he was one of the "many" for whom that holy One had given Himself, his heart was full; he burst into tears, and looking upwards he spelt again, "Good One! good One!" and ran for the box of letters that he might learn His name.

And so this boy learnt for the first time that Name which is above every name, the Name of Jesus.

It would take too long to tell you how Jack learnt each day something more about the Lord Jesus Christ. You see he had to be taught the story of His wondrous birth; of His life in this world, so full of deeds of love and power, and words of grace and compassion; of His obedience unto death, even the death of the cross; and how He was raised from the dead by the glory of the Father, and ascended up to heaven. All this, which you have heard so often, was not the "old, old story" to him, but quite new; the "good news of God concerning His Son"; and he did indeed receive the truth in the love of it.

His teacher still found that the best way of teaching him was to give him a picture of something which he could see; and her account of the way in which he learnt the great truth of resurrection, by her showing him how hyacinth-roots, which seemed dead and worthless, would put forth leaves in the spring-time, and "blossom in purple and red," is very interesting. After he had learned this lesson, he could never stand beside a grave without asking reverently whether the one whose name was upon the headstone "loved Jesus Christ."

About this time there came a great change in Jack's life, for he left his home and went to England. The friend who had been so kind to him was going back to her home, and could not bear to leave him behind, so she asked his parents to allow him to go with her. They did not refuse, for they were very grateful to her for all that she had done for their poor boy; and his mother said, "Take him; he is more your child than ours." So Jack went first to Dublin, where nothing he saw struck him with such wonder as the ships in the river; and then he went on board ship and sailed over the sea, and up the river Avon to Clifton. In this beautiful place he lived for a year. He became a good and faithful servant to his mistress, and especially loved to wait upon and play with "Baby-boy," a little nephew of hers of whom he was very fond.

But you must not think Jack was always good. He had a very angry temper, and would sometimes go into a passion, and cry in a very naughty way; or else sulk so as to make not only himself but his kind and gentle lady miserable; and sometimes he had to be punished for his bad ways. But

whenever he had shown this naughty temper, the time came when he was very, very sorry. He would go and have what he called "a long pray," and tell God all about it. I do not know whether it was at such a time that he spoke to his mistress about the "red hand;" but before I tell you of this, which has always seemed to me very beautiful, I must try to remember for you part of an address to Sunday scholars, which my children heard just at the time when I was reading to them the story of John Britt.

This address was given by an uncle of Ernest and Sharley, and they were both there. He spoke about how the eye of God looks us through and through, searching right down into our hearts, and seeing every bad thought there; and then he spoke of God's book, in which all about us is written down, and of God's hand, which writes all down in that book. He said that when he was a child, and thought of God's book, it made him tremble all over to remember what must be written there about him; and then, speaking very earnestly to the little scholars, he said, "Think of your name at the top of a page in that book, and then, one after another--none left out or forgotten--every naughty word you have spoken, every naughty thing your hands have ever done, all written on that page!"

When he had spoken for some time in this way, Ernest's uncle George said that if any of the children to whom he was speaking really did think of this dreadful page, and did not try to hide away from God, but went straight to Him about it, and said, "O God, I am such a sinner!" that cry would be written down there too. And we must never forget that because of the work Jesus "finished" when on earth, it is righteous for God to blot out the whole black list of every one who "comes to the Father" by Jesus.

I do not know who had told Jack about God's book, but one day when he was alone with his lady, he began to speak to her very earnestly. He told her that he knew that if he should die, like those people who had died of the fever, he would be put in the grave, but that he would not stay there for ever. He said that after he had lain there a good while, God would call "Jack!" and he would answer, "Yes; me Jack." Then he would stand before God, and in His hands would be a very large book, a "Bible book." He said God would turn the pages until he came to one where "John Britt" was written, and then He would look to see if there were any "bads" written there; but God would find no bads, "no no, nothing, none."

"No bads?" said the lady. "Have you never done anything wrong, Jack?"

"Oh, yes," he said quickly, "much bads"; and then he went on to show her how the Lord Jesus Christ had taken the book and had found that very page where Jack's own name was, and where all his "bads" were written down; and He had put His hand all down that page, so that when God looked at it, none of Jack's "bads" were there; only Jesus Christ's blood. "Then," he said, "God would shut the book, and Jesus Christ would say to God, 'My Jack!'" Perhaps you wonder what those bad things were which this boy knew he had done. I will tell you of one thing which he particularly remembered. Once, long ago, when he was quite a little boy, he had stolen a halfpenny from his mother; this was one of the wrong things which he thought of as written down upon that page, and he knew that without the precious blood of the Lord Jesus Christ, God's Son, even that one sin would have been always



there. And so he often told people about this, and would smile with happiness, and say, "Jack very much loves Jesus Christ. Jesus Christ loves poor Jack. Good Jesus--die--save poor bad Jack."

There are some things which are told us in the Bible which Jack did not know. He thought that when the last day was come, all who were in their graves would be raised, and all stand before God; he was not afraid when he thought of that great day, because he knew that "perfect love" which casts out fear, but it would have been very sweet to him to have known that the Lord Jesus is coming for His own, and that at His call "the dead in Christ shall rise first," and then all the living people who are "Christ's at His coming" shall be changed, and all together be "caught up to meet the Lord in the air, and so be for ever with the Lord."

Jack is one of those who have "fallen asleep in Jesus"; he died when he was a little more than nineteen, and the shamrocks, which he loved because he was an Irish boy, have long been growing green upon his lowly grave; but when the Lord calls His own to meet Him in the air, the deaf and dumb boy, just because he is His Jack, will be sure to hear that awakening voice; although he never heard any voice on earth; and to answer to the call.

But I must tell you a little more about his short life. When he was fourteen, his mistress left Clifton and moved to a very pretty house in the country, and there Jack was given a little room over the coach-house to be quite his own, so that he might go there to write or draw, when his work was done. And now, to his great delight, he was trusted to take charge of a horse; he took such care of it, and kept it so clean and neat, that before long another horse was given to his charge, and he had also to look after the cow, so that he must have felt that he was quite an important person.

You will be interested about his drawings when I tell you that he worked so hard at them, because he had a wonderful plan in his head. You must not think that he had forgotten his old home; though he was so happy in England, his great longing was to see his dear parents once more. He did not wish to go back to Ireland, but he thought if he could only earn enough by his beautiful drawings to buy a little cottage and a cow, he would send for them to come and live near him, and then his joy would be complete.

He used to pray a great deal about this, kneeling at the window, that "God might look through the stars into his heart," and see how very much he loved the Lord Jesus Christ; and he used to say that he knew God had "looked at" his prayer, just as you might say, "God has heard me praying to Him."

Five years passed in that quiet home, and then the cough, which had troubled him for some time, grew much worse, and he seemed to understand, without being told, that he was soon going to die.

When he came down one morning, looking sadly pale and tired, his mistress asked, "Have you slept, Jack?"

"No," he said, smiling sweetly. "Jack no sleep. Jack think good Jesus Christ see poor Jack. Night dark, heaven all light; soon see heaven. Cough

much now, pain bad; soon no cough, no pain."

You can see that, when he spoke on his fingers, Jack's way was to make his sentences short by leaving out all the little words, much as children do when they first begin to talk.

During the few months of life which remained after he became so ill, his sister Mary was with him, and his soldier-brother Pat got leave to come and wish him good-bye. For Jack was really going to Him whom having not seen he loved, and at the last moment of his life his great comfort and joy was in thinking of the love of Christ to him. He would say, over and over, "Jesus Christ \_loves\_ poor Jack," and then speak of the "red hand" that had blotted out all his sins--those many sins which God would remember no more, because "good Jesus Christ" had given His own life for poor Jack.

The snow was falling fast when they laid the body of this dear boy in the quiet churchyard, far away from his Irish home. His beloved mistress and his sister Mary were there. How wonderful it is to think that the first sound that will fall upon those ears, deaf all his life long to every human tone, will be "the voice of the archangel and the trump of God," calling him, and all those who sleep in Jesus, to rise in their bodies of glory, "to meet the Lord in the air," and to be with Him for ever!

"Then, when the archangel's voice  
Calls the sleeping saints to rise,  
Rising myriads shall proclaim  
Blessings on the Saviour's name.

"This is our redeeming God!  
Ransomed hosts shall shout aloud  
Praise, eternal praise, be given,  
To the Lord of earth and heaven."

#### THE STONE BOOK.

"\_The heaven, even the heavens, are the Lord's: but the earth hath He given to the children of men.\_"--PSALM cxv. 16.

"\_Speak to the earth, and it shall teach thee: and the fishes of the sea shall declare unto thee.\_"--JOB xii. 8.

"\_Be still, and know that I am God.\_"--PSALM xlvi. 10.

We have been reading a little about the story of the heavens. Now I want to take you from the starry heights to the dens and caves of the earth, and to speak to you a little about--not astronomy, but geology, as the science or study of the earth is called. This is a very interesting study, but one in which we may easily make serious mistakes; for we have not here the firm

ground under our feet which the Word of God gives us, and we must always beware of saying, "This thing is so, therefore that other thing must be so"; or, "This thing is not, therefore that other cannot be."

When we first began our talks, we read that "In the beginning God created the heaven and the earth"--all that which is meant when we speak of the "Universe." This is just what we need to know; and how gracious of God the Creator to speak to us about His own works, and set at rest all the guesses and reasonings of our minds as to how and when this earth first came into existence!

Then we noticed that there is a pause, how long a pause we know not. The silence of God, as it were, falls upon the scene; we hear nothing more about the heavens, and nothing of the earth between the time of its creation and its state as described in the next verse--a desolate, watery waste, upon which darkness brooded.

It is a great thing to know how to listen when God speaks to us, and to be silent when He is silent. "By faith we understand that the worlds were framed by the word of God"; this is what He has been pleased to tell us, and we cannot go beyond it.

In the chapter called "Ruin and Darkness," we learnt a little about the "crust" of the earth; and I told you that those who have studied it believe that they can read in it, as in a book, marks of the many changes which have passed over it since the Creation.

As they search into its depths and bring out to the light of day remains of plants and animals which lie buried there, they point to these "footprints on the sands of time," and tell us that our earth is very, very old; how old they do not say; they can only guess.

But long before anyone began to lay bare the recesses of the earth and to ponder its age, God had told us that it is older than our little minds can conceive, for He created it "in the beginning."

Men of science also when they speak of the work of God on the SIX DAYS of His Creation, say they could not have been actual days of twenty-four hours, as time is now measured. I have told you that in speaking of what God does we must never say a thing could not be; but rather lay our hand upon our mouth, or speak as Job did when he answered the Lord and said, "I know that Thou canst do everything, and that no thought can be withholden from Thee." But we may also remember that, as God measures time, "One day is with the Lord as a thousand years, and a thousand years as one day"; "for a thousand years in Thy sight are but as yesterday when it is past, and as a watch in the night,"

I wonder--as we have read now four times, at the close of each of God's wonderful days, "The evening and the morning were the first," "the second," "the third," "the fourth day"--whether you have stopped to think why the evening is always put before the morning; surely this way of reckoning time is very unlike ours.

Is it not so reckoned because as light was made to shine perfectly upon the earth, when God called it out of the darkness, there was no dawning of that first day? It began when God said, "Let light be: and light was"; then, with the gradual disappearing of the light, "there was evening," nothing being told us about the "unfurled flag" of night, or the dawning of the second day.

This at least we know, that whether in the beginning, when the strong foundations of the earth were laid, or during those periods of time when God was working to bring it into order and beauty, "no touch of man's rude hand" interfered. The goodness of God was seen in storing it with mineral treasures for his use; covering it with vegetation which has lived and died and laid up vast abundance of coal; peopling the air and the waters with birds and fishes. But with all this man had nothing to do, for one of the very last acts of Creative Power was that which called him into existence, and set him, as lord of all, in a place so carefully and wonderfully prepared for him.

And as we look back over those Days of Creation of which we have been reading, let us remember that each successive Day led up in perfect order to making his dwelling-place perfectly fitted for him, the creature of God apart from all others, specially formed for Himself. As has been beautifully said, "when the sea was gathered into one place and the dry land appeared, a secure footing was found for man; when the waters above the firmament were separated from the waters below, man, the highest of all created things, could look up"--all was done in reference to him, when as yet he was not.

We shall not read about the work of God on the Fifth Day in this chapter, but I want you to turn to the account of it given in the first chapter of Genesis, and you will see that there for the first time in the Story of Creation the word "life" is used. God speaks to us no longer of only inanimate or lifeless things, such as the sea and the dry land, the earth with its herbs and trees, and the two great lights which were made to give light upon it. He tells us now of creatures which live and move and have a being, each "after its kind"; each exactly fitted to enjoy life in the place prepared for it.

The story of the way in which God in His mighty and gracious working prepared earth and sea and sky to be the home of creatures which were yet to be brought forth and created, is very wonderful. But when we read of "the moving creature that hath life," and of "every living creature that moveth," we come to what is still more wonderful.

You remember in the history of the plagues in Egypt, that when the wise men tried to imitate what God was doing in sending His judgments upon the land, there was a point at which they stopped, and could go no farther, "This is the finger of God," they said.

What was that point? It was when they tried, by their enchantments, to produce one of the meanest, as we should say, of living things.

And so it has always been: man, the highest of God's creatures, apart from

all the rest, is still a creature, and he never has been able to usurp the power which belongs to God alone.

It is true that man can destroy animals, and so hunt them down as to render them extinct; he can also, as we have seen, by great care and skill and long patience, produce what are called "varieties" of both plants and animals, increasing the size of leaves and blossoms twenty, thirty, even a hundredfold; but though he may talk of the formation of new flowers, with endless shades of colour, they are not really new, but only varieties of those already existing. You remember, when we were speaking of the "Green Earth," we learnt that never, from the beginning of his life on earth, has man produced a new \_kind\_, or species, of either plant or animal.

We must never forget this. God, who said to the mighty ocean, "Hitherto shalt thou come, and no farther: and here shall thy proud waves be stayed" (Job xxxviii. 11), has also set a bound beyond which man, however great his powers may be, is not permitted to go. Life, in all its forms, from the lowest to the highest, belongs to God.

But perhaps you are asking why I said that we do not in the Story of Creation read anything about \_life\_ till we come to the work of God on the Fifth Day. Are not the trees and plants alive? Do we not say of a blasted tree or withered flower, It is dead?

It is quite true that plants have a life which shows itself as we have seen in their growth, and even in some "sensitive" plants, by their shrinking from the touch. In the wheat-fields the order of the unfolding of the life of a plant "whose seed is in itself," may be seen, as we watch "first the blade, then the ear, afterwards the full corn in the ear." But this life is very different from that of the lowliest animal which has power to feel and to give expression to its feelings, power to move from place to place, and which shows in its own way of living an intelligence which is not seen in the very highest forms of vegetable life. At the same time it is true that in their lowest forms animal and vegetable life approach each other so nearly that it is often difficult to say where the one ends and the other begins.

But without the plants and their ceaseless work, as the "sleepless universal providers of the earth," as they have been called, all animal life would fail and die; for they are the means by which all the nourishment which is contained in earth, air, and water can be made of use both to themselves and to the animals.

And is it not very beautiful to see how God has made one part of His creation dependent upon another, and all dependent upon Him? Does it not show us His care for His creatures, and especially for that wonderful creature--the last and best of all, who was created for the earth and the earth for him--when we see, as we have seen so constantly, that before the inhabitants of earth, air, and sea came into being, He had caused the earth to bring forth that which should give to every living thing the means of sustaining life?

I have called this chapter, which does not speak of the work of God on any

special Day of Creation, THE STONE BOOK. A wonderful book it is for those who can read it; its leaves are the successive layers of the earth's crust; its letters are not only the remains of plants, but the fossil-shells and bones of animals imprisoned there, which tell us that creatures, all in some way unlike any we now know, once lived and died, and are still to be found, not in their ancient forms in rushy mere of tangled jungle, but in "graves of stone and monuments of marble."

When we were speaking of the coal-mines I told you something about the remains of giant ferns, sedges, reeds, and mare's-tails of far larger growth than any now known, which have been found there. You are familiar with fossil-plants, but I do not think we have spoken much of fossil-animals, which are found in all except the oldest layers of rock--the first pages of the "Stone Book."

The children had been with me to the Museum in the town in which we lived, and had looked with wonder at the huge creatures whose skeletons have been built up bone by bone, after being taken from their rocky tomb--for this earth of ours which has seen so many changes has been rifled of her treasures; not the gold and silver, coal and iron with which she is so richly stored, but the wonderful specimens of God's work in bygone ages which He has allowed us to see; so that we cannot doubt that such creatures once existed, though we may know nothing with certainty as to the time of their first appearance in the sea and on the dry land, and can only guess at the kind of life they lived.

You remember that we spoke, in the chapter about the earth's crust, of the "fire-made rocks," which were once in a liquid state from intense heat (we could not expect to find any remains of plants or animals there, and none \_have\_ been found), and of the "water-made rocks," which have been gradually accumulated by the action of water in wearing down the land. These rocks lie in layers, and fossil shells, plants, and bones of animals have been found in them, as we have already seen.

But how did these fossils get into the rocks? And how is it that they have been found in all countries and at all heights above the sea?

Before I try to answer these questions, I must tell you that when geologists speak of "rock" they mean everything which has gone to form the crust of the earth, whether clay, or loose sand and gravel, or the hard heavy granite which some of us had seen crowning the Dartmoor tors.

It is thought that the huge creatures whose bones have been found at different depths in the earth's \_strata\_ were buried there when the "rock" which formed the layers was soft; perhaps in the mud of lakes, or in peat or sand at the mouths of rivers. Then, as time went on, their softer parts perished, but the harder turned to stone, thus forming the "letters" in the stony pages from which those who study the earth try to read something of its history. Then, as sea-shells are found inland, deeply buried in the hills, it is thought that the land in which they were buried has been raised by earthquakes, or thrown out by volcanoes: or was altered in position at the time when the earth's foundations were overflowed with a Flood, and "the waters stood above the mountains." As geologists read

the Stone Book, like the writing of Eastern lands, \_backwards\_--as they search deeper and deeper into the crust of the earth, they speak of its Old life, Middle life, and New life: but we must remember that they \_do\_ read backwards, calling the older life what is really the younger. And we must also bear in mind that many of the words used in what is called science--especially those relating to the study of the earth--betray our ignorance rather than prove our knowledge. The marking off stages in the life-history of the earth, and speaking of its Old, Middle, and New Age has been done to help in the study of its crust. Nothing is known, however, with certainty about these different periods or where one ends and another begins, and no one knows whether the first, or oldest, layer has yet been discovered. One geologist says, "I have found it," and presently another penetrates a little deeper, goes a little farther back, and finds one lower still. Nor can anyone say certainly where a fossil-fern or the mummy of an old-world fish appeared for the first time, and though many plants and animals which are found in a fossil state have long been extinct, yet there are many more which appear at a very ancient date and have continued unchanged to the present time.

There is a famous cliff in Dorsetshire upon which may be read, almost as upon a map, the record of the changes which have passed over it during its life-history.

On examining the strata, or layers which lie one above the other, geologists find the first, or lowest of all, to be Portland stone, which was formed by the accumulation of lime at the bottom of the sea.

The second layer shows that this sea-bed in time became dry land, and was covered with soil--what had once been the seashore gradually giving place to a forest.

But how do we know that such a wonderful change was wrought in process of time?

We have clear proof that it was so from the vegetable soil still remaining, and the numbers of trees the remains of which are embedded in the rock, many of them standing upright as when growing.

The third layer seems to show, from the limestone and the fresh-water shells embedded in it, that the level land where the forest grew sank lower and lower until it formed a hollow which in time became a lake.

The fourth layer, which "ends this strange, eventful history," gives evidence of the whole land having been again covered by the ocean, and again raised above the waters!

If we were studying geology together, I should like to take you with me to the Museum, and we would first look at the fossils which are believed to belong to the most ancient time of life upon the earth; then we would pass on to those belonging to the second or "middle" stage, and then to the third, or "new" stage, letting these wonderful stones, taken from mountain height or deep sea bottom, or from the depths of the earth itself, tell their own eloquent story.

But what I should like you to remember is that geologists of our own time tell us that the lowest layer of the earth's crust which has yet been explored appears to be made of vegetable remains, so crushed and altered by time and by the tremendous pressure of rocky layers lying above it, that though it is probably of the same material as that which forms the coal-measures, it resembles the blacklead of which pencils are made much more than the coal which you know is what has been formed by the decay of buried forests and jungles.

In this layer of "graphite," geologists with the help of their microscopes have searched in vain for any trace of what once was living, but they think it may have been formed from the "flowerless" plants, or even from those still more lowly, too minute when living to be seen by the naked eye, and consisting of one tiny bag or "cell."

They tell us that these "infant" plants were followed by those of larger growth, specimens of which are found in layers of rock and clay nearer the surface, and are followed by remains of the "herb yielding seed, and the fruit tree yielding fruit after its kind"--for mummies of seed vessels and fruits have been found in coal-fields in many parts of the world.

It is interesting, too, to see that as far as we can tell at present, in the case of fossil-fish and other living creatures, the lowest forms are found first (that is, farthest back), and are followed by remains of creatures higher in the scale of life; that is to say, not so simple in structure. In using the words "higher" or "lower," we do not mean that there is anything imperfect about the humbler creatures; they are exactly suited to the life which has been given to them to live, but their form is very simple compared with that of "higher" animals, just as a three-legged stool is much more simple in its construction, and is made of fewer parts, than a watch. I may tell you a little about these lowly creatures when we speak of the FIFTH DAY of Creation, and then you will see that they were all made according to a "perfect goodly pattern" or plan, and each "after its kind"; for if we read the pages of the Stone Book aright, we shall see plainly written there that from the first beginnings of life, as far as it is given us to trace them, the goodness and wisdom and power of God are shown in the way in which the smallest creature of His hand is suited to the place appointed to it to fill, by Him who is "good to all," and whose "tender mercies are over all His works."

But there is a great difference between what we may thus glean from the study of the earth, and what is revealed to us by the clear teaching of the Word of God, as He tells us what He did in His wonderful work of Creation, and how He "saw everything that He had made, and behold it was very good."

When God speaks, all is clear and simple and true; and is to be understood by believing His word: when we come to the thoughts of men about what happened in the far past, especially when they try to settle not only the when but the how of His mighty working, much is dark uncertainty.

Should we then not study the letters of the Stone Book? I did not say so; "God has made everything beautiful in its time," and His handiwork in the



past as well as the present is indeed worthy of our attention. But in reading books about geology, more perhaps than in any other study, you need to ask God to teach you to hold fast by His Word.

Then, if you read that many geologists now believe that there has been no special creation of fish or bird or beast of the earth, but that "all the many forms of plant and animal life have been unfolded out of a few simple forms, just as the stem, the leaf, and the flower are evolved out of a simple seed"--you will say at once, "That cannot be; for God has plainly told us of both plants and animals that they were made each 'after its kind,' and therefore there can never have been such a thing as a fish developing into a bird, or a bird into a lizard: nor, so far as I have seen, is any such creature to be found in a fossil state."

I heard some time ago that a young man who was studying to become a doctor, said to his father, "When I go to some of my lectures on biology" (that is the study of life), "the only thing that I can do when I hear things said that are quite contrary to the Bible, is to keep saying to myself, 'It's not true\_, it's not true\_.'"

I think this young man was right: he had settled it in his heart that whatever he might hear, he must think as God thinks. He was like one who when just starting in life, wrote these words on the flyleaf of his little Bible--"Man has faith in his compass, yet he cannot understand it. He takes it as his guide across the trackless ocean. He relies implicitly upon it, and well he may trust it. This Book is my compass. I have faith in it, thanks to God: it explains itself; I take it for my guide across the ocean of life--I rely upon it. Man may jeer at my faith, but my compass is vastly more reliable than his--still better may I trust mine."

"HIDDEN TREASURES.

"The gems of earth are still within  
Her silent unwrought mines;  
There hide they, all unknown, unseen,  
No sparkle upward shines.

"The stars of heaven, how few and wan  
Are all we see below  
Compared with what remain unseen  
Beyond all vision now!

"Who knows the untold brilliance there,  
The wealth, the beauty hid?  
Like sparkle of a lustrous eye  
Beneath its veiling lid.

"So with the heaven of better stars  
Of which these are but signs:  
So with the stores of wisdom hid  
In everlasting mines."

H. BONAR.

THE FIFTH DAY.

"THE MOVING CREATURE THAT HATH LIFE."

"\_This is the finger of God.\_"--EXODUS viii. 19.

"\_The Lord ... in whose hand is the soul of every living thing.\_"--JOB xii. 10.

"\_O Lord, how manifold are thy works! in wisdom hast Thou made them all: the earth is full of Thy riches. So is this great and wide sea, wherein are things creeping innumerable, both small and great beasts.\_"--PSALM civ. 24, 25.

We now come to the time when the empty water, air, and land were filled. The work of God on the FIFTH DAY is spoken of in verses 20 and 21 of our chapter. In reading them we noticed that in respect of the "great whales," or sea monsters, the word "created" is again used, as it was in the first verse; and then, as we read the twenty-third verse, we had a little talk about the words now used for the first time in the story of Creation, "and God blessed them."

How beautiful it is to see that as soon as God had caused the waters to "swarm with swarms of living souls" (look at the margin of your Bible as you read the twentieth verse)--as soon as we read of creatures to whom God gave a life different from that of a tree or a flower, a life that could enjoy itself in the home prepared for it--all these living things were blessed, that is, made happy, by Him who called them into being!

God's world was a happy world for the humblest creature of His hand; and if it is now a sad world, where the groan of many a suffering animal goes up to Him who hears the ravens when they cry--whose fault is it?

Did you ever think how kind we ought to be to the creatures which, innocent themselves, have shared the sorrow brought into the world by man's disobedience? I heard someone say the other day, "It is terrible to see animals suffer: to see cattle overdriven, and sheep dying for want of water, and defenceless creatures cruelly used. But when I see any of these things, I have to feel--\_I\_ am to blame for that."

When I asked my scholars, "What is the meaning of \_abundantly\_?" Sharley said, "It means enough and over."

Do you like her answer?

As the sea everywhere, even down in those depths where the sun's light

cannot pierce through the masses of water, is peopled by millions of creatures--every drop of water, as we might say, \_alive\_ with life--I thought it a good one. A great poet has spoken of the "multitudinous seas," but whether this was in allusion to their wealth of life, or to their myriad waves, I do not know. Certainly in his time very little was known about the dwellers in the deep, deep sea, compared with what we may learn in the present day, when the sounding-line has reached the bottom of the Atlantic, and actually brought up some of the clay that forms its floor--clay which is made up of the skeletons of myriads of creatures. It was once thought that no life could exist in the ocean-depths, but we now know that life is everywhere--in air and water, upon the earth and within it, in the lowest depths of the sea, and on the highest mountain peaks, in hot and cold climates, and in the bodies of animals: all around us--earth, air, and water--teems with life.

Now let us read once more the simple words which tell us all we can really know about what is so wonderful: "And God said, Let the waters bring forth abundantly the moving creature that hath life" (or, as it may be translated, "Let the waters swarm with swarms of living souls").

We will not read farther to-day, as I want to tell you in this chapter something about life in what are called its lower forms, and we shall find that wherever we may look, every creature is perfect in itself, and perfectly suited to the life appointed to it by its Creator, and the home where He has placed it.

My children had learnt something about the two great divisions of animals, those which belong to the great Backboned Family and those which have no backbone. It is of the latter that we shall speak today. You know that a fish has a backbone, and that it is beautifully formed, for you have often seen it; but perhaps you have not noticed that a lobster, though called one of the shell-fish, is quite unlike the true Fishes: its skeleton is not inside, but outside; there are no bones within, but all the soft parts are inside, and the hard parts outside; while the body of a fish is formed on just the opposite plan. The fish is called a \_Vertebrate\_ animal, because it has a backbone, made up of numbers of separate bones called vertebrae. Some of us know that this word comes from the Latin, and means \_that which turns\_, because these many small bones are so beautifully jointed together as to be all perfectly moveable, so that the long bone which they form is very flexible. Some snakes have more than three hundred of these vertebrae, and you know how they can coil and twist their glittering length.

The marks of a Vertebrate animal are very easy to remember.

It must have this wonderfully jointed backbone, and also what is called the skeleton, which is a framework of bone.

A spinal cord (from which this division of animals is sometimes called the "Chordate").

Four limbs, and red blood.

In these respects all the animals which belong to this division are alike,

though in general appearance they may be as unlike each other as a horse is unlike a bird, or a crocodile unlike a herring.

Few things in nature are more wonderful than the way in which this Vertebrate plan has been fitted to animals differing from each other in all other respects.

Now let us look at the marks of an Invertebrate or Inchochordate animal.

It has no backbone, and instead of a bony framework within, to support the soft parts of its body, it generally has a hard shell, or thickened skin outside, to protect the softer inner parts.

It has no red blood.

Now, just as plants have been arranged in different classes, so animals are classified according to the various plans upon which they have been formed. So, besides the two great divisions of the Vertebrates and the Invertebrates, the latter have been classed as--

(a) Radiata, or Rayed Animals--those whose parts all radiate from a common centre--such as the starfish, red-coral, sea-anemone.

(b) Mollusca, or Soft-bodied Animals, protected by shells--such as snails, oysters, limpets. (The members of this family are numerous indeed).

(c) Annulosa, or Ringed Animals--those whose bodies are composed of many parts, jointed together--such as crabs, spiders, bees, ants, centipedes, shrimps, and many more; for this great family has relations among all the insect tribes.

It is very beautiful to see that God has formed His creatures on such different plans, and though we shall be able to say very little about them, I hope you will by-and-by study Natural History, and learn more and more of His care in fitting each for the life it has to live. But remember that all these types of animals, the Radiates, Molluscs, Articulates (as the members of the "ringed" family are sometimes sailed), existed in the most ancient times: they lived side by side, as it were, and were not, as some philosophers would have us believe, derived from each other. Each was "after its kind," and each species remains; animals may alter from changes in their way of life, but there is no passing from one kind to another.

Now I think you will be interested to hear that in the Stone Book, some of the most ancient "letters" are formed from creatures belonging to the Invertebrate Group. We were speaking just now of the white clay brought up from the depths of the Atlantic Ocean by the sounding line. The microscope shows that it consists of the imperishable part of creatures, tinier than any you can imagine, which had the power when living of extracting from the sea-water--as I told you is the way of the corals--the lime which formed their outer coat, or skeleton. These busy workers lived their little day, and then as they died, the shell-like coverings sank to the bottom of the sea, forming, as ages passed, thick beds of chalk, such as that of which the white cliffs of Dover are built up.

Then, as the sounding-line searches still deeper ocean-depths, it brings up a red clay, and this again is shown by the microscope to be composed partly of very minute creatures of a reddish colour, which live near the surface of the ocean, but when they die sink to the bottom.

Sponges, too, which form the home of great numbers of little radiates, grow upon the ocean floor or near the bottom of the sea; their tiny tenants, like minute cells, living upon still smaller creatures contained in the water which is held by the sponge.

And we are told that in some places the bottom of the sea is strewn with star-fishes and their relations, some of them very beautiful in form and colour, but all formed on the same plan of a central plate, from which five arms or fingers radiate.

Do we not better understand that the waters did indeed "swarm with swarms" when we learn even a little about these living creatures, many of them so small that we should not be aware of their existence if we had no microscope to reveal to us their countless myriads?

The Mollusca form a very large group of Invertebrate animals; they live on land as well as in the water, but the aquatic species are much more numerous than the terrestrial, and the deep-sea dredgings are constantly bringing to light new forms. Some of the shells which protect their soft bodies, and are formed by the animals themselves, are marvels of beauty, and many of them are secured from injury by a waterproof coating. A number of extinct animals, such as Ammonites and Belemnites, belong to this group--their shells may be seen in any good museum; those of the Belemnites, as their name implies, are shaped like a dart; those of the Ammonites, like that of the beautiful Nautilus of our times; but the fisherfolk of Whitby, where they are found in numbers, say they are "snakes turned to stone."

But as we have been speaking so much of sea-creatures, I think we will now leave the oysters, cockles, mussels, and razor-fish, and choose the familiar garden-snail as our specimen of the Mollusca, or Soft-bodied Family. I fancy you need no introduction to that snug little householder. Often, however, as you have touched his soft horns, you possibly do not know that the very house in which you first made his acquaintance has been his habitation ever since; for young snails come from the egg with the shell upon their backs, and they never quit that first house for a larger one, for as they grow, their shell-house grows too. Look at this empty snail shell, and say whether God has not given a beautiful coat of mail to protect a creature without a bone in its body, and so sensitive that

"Give but his horns the slightest touch,  
His self-collecting power is such,  
He shrinks into his house, with much  
Displeasure."

But how does the house grow large so as to suit the growing tenant? Most shells are made from a part of the animal called the mantle, and increase

round the rim; if the snail's house is broken, its slime will harden over the injured part and repair it. Then, when the cold weather comes, and the snail prepares to bury itself underground for several months, and take its winter nap, it makes a strong cement of earth and slime, with which it builds up the open part of its shell--but, wonderful to think of, the clever little mason leaves, as it were, one brick out of the wall, and thus there is a tiny opening, too small to let in the water, but large enough to admit air sufficient to keep him alive during his long sleep.

Now that our snail has been good enough to put out those four horns of his, let us ask what purpose they serve, and why they are placed where they are. The answer is very simple; these "feelers" are to the snail instead of arms and legs; and the upper pair have eyes at the end, so that the wary little traveller, as it drags itself along a broad cabbage leaf, leaving a slimy track behind it, can tell, both by sight and touch, what obstacles may lie in its path. I don't know whether you have ever seen the eggs of snails; I have not, but I have heard that they are about the size of peas, and are buried in the earth, as the crocodile's eggs are buried in the sand.

Of the many families of Ringed or Jointed Animals, we will choose the Crabs and Lobsters first. They are encased in armour of shell, and this has given to them and their relations the name of Crustaceans, or Crusty creatures, because what bones they have are outside, not hidden beneath the flesh. But unlike the snail's house, which grows with the growth of its inmate, and unlike our skeleton which grows as we grow, this close-fitting armour does not increase in size, nor is it elastic enough to expand, but every year one coat of mail is cast off, in a way not unlike the sloughing of the serpent, to make room for a fresh soft suit. This new suit soon hardens, and the creatures embrace the opportunity to make a little progress in growing, which they do by fits and starts, not continuously; for the shell, when once hardened, gives them no room to increase in size--they have to wait till next year! The long pointed claws of the crab and lobster are easily broken, and sometimes lost altogether, so that the power which they have of growing new ones is a wonderful provision for their life among the rough rocks and tangled sea-weeds.

One of the crusty creatures you know well enough, and you can find it without going to the seaside, I mean the wood-louse, which I used to hear called a "carpenter" when I was a child. In damp places, you can hardly turn over a mossy stone, or pick off a bit of bark from a fallen tree, without disturbing a whole colony of these slate-coloured creatures, with their mailed coats, made of ten rings, or plates of armour. They seem to know the use of their armour well enough, for if disturbed you will see them either scurry off as fast as their many little feet can carry them--and they are able to run forward or backward at pleasure--or else roll themselves up into tight balls, so that feet and head and feelers are all safe, under the ringed shield which God has given them as a defence and protection.

Many such creatures, rolled up just as the wood-louse curls itself, in tight balls, have been found in a fossil state; and there is a little petrified crustacean with wonderful eyes, which has been found in the slate

quarries of South Wales. It is called the Trilobite, because it is composed of three lobes or divisions, and is an animal of the same kind as the lobster. Be sure you look for it, if you are fossil-hunting in the Museum, for it is a most interesting specimen, and has been found in rocks deep down in the earth's crust.

Now, next to this Crab and Lobster family, come that of the Spiders, and then that of the Insects.

Perhaps you will say, "But what are spiders, if they are not insects?" I know I used to think they were, until I found that no creature can be reckoned one of that large family unless it has six legs--not even one more or one less. Now, a spider has eight legs, and it has no wings, while all true insects have either wings, or what seems to be the beginning of wings: also although some spiders have as many as eight eyes, they are all "simple," while the eyes of insects are "compound"; that is, great numbers are massed together at each side of the head, like the "facets," or little faces, of a precious stone. As insects have fixed eyes, which cannot move, they would be very badly off without these many points of view.

I wonder whether you ever had a good look at a spider, or whether you learnt when you were almost a baby to think it a "horrid creature"; so that now, when you might be watching it at its work, your first notion is to get out of its way as fast as possible.

Some creatures are really harmful, and it is right to keep out of their way, but it is never right to despise a single thing which God has made, and when we think that the spider is one of His creatures, one which He calls "exceeding wise," it does indeed seem a pity not to learn something about it; and the best way to learn about spiders, as well as all the rest of the animals, is not only to read about them--though that is a very great help to begin with--but to observe and study their habits for ourselves.

Ernest is fond of repeating a poem about King Robert the Bruce; how, as he noticed a spider six times fail to climb up its slender thread, but succeed at the seventh attempt, he took courage to make one more effort for his lost kingdom, and succeeded.

This was long, long ago; but Kings and Commons have yet their tugs of war; and for old and young it is still all honour to those who

"Try, try, try till they win,  
Brave with the thought that despair is a sin--  
Who fights on God's side is sure to win."

There are a great many spiders, of which we cannot now learn much more than the names which have been given them; but the true story of their lives, and the wonderful way in which they overcome all sorts of difficulties, if rightly read, would make us feel that many a lesson of patient toil may be learnt from such busy little weavers, and engineers, and divers.

Here are a few of them: The Hunters--they live in crevices of walls and houses, and have their name because they wander about constantly, ready

to steal upon any insect which may come in their way; the Vagrants, who, though they will run to catch their prey when it is in sight, lie in wait for it, rolled up in a leaf, or hiding at the bottom of a flower, just where the flies are sure to come for honey; the Water-spiders--they manage to live under water in a nest so nearly made of air, though in the midst of the water, that this spider has been looked upon as the inventor of the diving-bell. Then there is the industrious Mason, which bores a hole in the earth, makes the walls of its little tunnel as smooth as if it worked with trowel and mortar, and then hangs them with delicate silken curtains of its own spinning and weaving; the Trap-door spider, so called because the mouth of its burrowed nest is fitted with a cleverly hinged door, which the owner of the nest can shut with its claw when it leaves home; the Pirate, which makes a leafy raft, and skims along the water after the insects which suit its taste; the Gossamer spider, which rises so high in the air, and floats at its ease in its own balloon--and Epeira, the Garden spider, whose beautiful web, covered with dewy diamonds, we have all seen, laid like some fairy lacework, over the hedges, on an autumn morning, as if the little weaver had been early at its work, as "wise" people usually are; and, as God has deigned to tell us, He Himself has been.

[Illustration: THE GARDEN SPIDER.]

As we can only find time to study one spider, this shall be the one, for we have not to go far to look for it.

First let us consider why it makes its beautiful web, so slender and so easily destroyed that it is used as an emblem of the "hypocrite's hope" which "shall not endure"; and yet so strong when we think of the little creature whose cunning "hands" have woven it. The spider lives upon flies and other insects, but is itself without wings, so that it would be impossible for it to catch its prey if it had not been given power which the animals on which it feeds do not possess--the power to lay snares; this is why it takes such trouble with its beautiful web, and makes the cords from which it is woven so fine, and yet so strong. The web is the snare in which the insects on which it lives are caught, and from which they have no power to escape, for as soon as the insect is entangled, the spider, in his hiding-place, knows by the shaking of the threads that his prey is secure, pounces upon it, benumbs it by one prick of his poison-fang, binds it fast with silken threads, and carries it off to his "dismal den," as the verse about "the spider and the fly" calls the place where he lies in wait for any winged thing which may "come buzzing by."

But this subtle and beautiful snare--how is it made? Where do the threads which form the silken meshes come from? Ah! you have seen the cocoons which silkworms spin, have you not? The weaver-spiders get their threads just as the silkworms do, from their own bodies; each thread comes from an exceedingly small hole; there are four of these holes in the spider's body, and the threads are made of a sort of gum which is almost liquid, but which becomes hard when it is exposed to the air. The spider spins and twists its slender threads just as a rope-maker twists his ropes, only using its feet for hands--for each fine thread in the web, which you could break with one touch of your finger, is made up of many finer ones, and thus rendered strong. The only tools which the spider uses for his rope-walk and in his



loom, are his own claws, which are furnished with comb-like fingers, and an extra claw, for winding up the thread into a ball.

If you could watch the spider at his work, you would see that he first marks the outline, by passing this thread from one leaf or branch to another, until the circle is as large as the web he intends to make; then this circle is filled with lines, which are woven from the outside to the centre, and resemble the spokes of a cart-wheel. A spider has actually been seen trying the strength of these cords which form the foundation of his web, breaking any that are not strong, and weaving others in their stead; for he has a sure instinct which tells him that if the framework is faulty, all will fall to pieces; and only when, by pulling each thread separately, he is certain that each will hold, does he begin to work from the centre, and spin ring after ring, the threads which pass from one spoke to another. When all is finished, the workman rests from his labour, and may often be seen sitting in the place which he has left for himself in the middle of his own web, watching with all his eyes for his prey.

A careful little fellow too is the spider; he is not ashamed to mend as well as to make, and you may see him busily repairing his broken net, and may know, by means of this little barometer, what weather to expect; for he is too wise to waste his silken threads and busy skill in making or mending a net for a coming storm to break.

"When the spider works away,  
Be pretty sure of a sunny day."

Very soon after the little spiders leave the silky ball in which they are hatched, they begin to make webs of their own; but I. have heard that these first attempts look very irregular, which shows us that although God has given them the instinct by which they set about weaving snares, they learn, as we do, by painstaking and practice, to make their work more and more perfect.

Perhaps one reason why God has allowed us to watch the spider lay snares for his prey, is to keep us in mind of the snares of which He tells us in His Book. There are many very important passages about snares to which we do well to take heed.

While I was telling you about the way the spider has of pulling each of the cords which form the foundation of his web, one by one, to make sure that there is no weak place in any of them, I remembered something which a young girl once said to her mother. Alice had always been a merry, happy child, the light and joy of her home, and she loved her father and mother and little brothers and sisters, and the lambs and birds and flowers and summer sunshine, and games and treats, just as much as you do. But as she grew tall, Alice was not so strong; the child who, when she was nine years old, had "climbed the dark brow of the mighty Helvellyn"--running on before all the rest, until the guide called her his mountain-goat, and actually getting first to the top of the mountain--when she was about seventeen, began to fade like a flower, and to grow weaker and weaker day by day. [Footnote: The Master's Home Call. Memorials of Alice Frances Bickersteth, by her father.]

Her parents sorrowfully took her from place to place, hoping that fresh air might give new life to their child, and bring back the roses to her pale cheeks. But nothing made her better, and at last, when they brought her home again from the seaside, her father thought the time had come to tell Alice that the doctors all said the same thing; she might live a few months longer, but she would never, never be well and strong again, for she was not only very ill, but dying.

[Illustration: MOUNTAIN PEAKS.]

It was lovely bright summer weather; you would have thought the sunshine and the soft air would have made anyone well, as Alice lay on the sofa while her dear father read to her. They had been reading the Epistle to the Philippians, and when they came to the verse where the Apostle Paul says, that to him "to die is gain," and to that other verse which speaks of departing "to be with Christ, which is far better," though he could hardly speak for tears, he told her just what the doctors had said.

I do not know whether Alice had ever thought of not getting better, but long before her illness, when she was strong and well, she had come to the Lord Jesus Christ--and now He was her Saviour and Friend, so that her father was not afraid to tell her that she was going to Him. This is what she said, as soon as he had told her:

"Dear father, I am not afraid to go. How I thank you for telling me." Then, when the tears came at the sight of his grief, she added, "It is only leaving you all; but Jesus will be there. What should I do without my Saviour now?"

From this time Alice very often spoke, about dying, but she always called it "going home." It was very soon after her father had told her, that she said to her mother those sweet words which came to my mind when we were speaking of the little spider making quite sure that his threads were strong, with no weak place anywhere.

"I feel just like a sailor," Alice said. "When he is called to go aloft, he tries all the ropes to see if they are firm. I have been trying them all, and, mother, they are all right."

Another time, when someone said, "You always looked happy, Alice," she smiled and said, "Yes, but I am happier now." And when he asked, "Have you no fear whatever?" she replied, "None whatever."

But had this always been so? Ah! no. It is true that she had always been a loving child, and had many bright ways about her which made people fond of her, so that it was no trouble to her to win love from all around her; but Alice had a very strong will, and liked to do just as she pleased, and as she grew up she often showed that she was indeed far away from God, and one of those "lost sheep" whom the Lord Jesus, the Good Shepherd, came to "seek and to save." But He had sought and found her, and now He was gently carrying her home on His shoulder.

This is what Alice herself said about it: "I used to be afraid of death; but God has taken it all away. I cannot understand people calling it 'being in danger.' Once my sins seemed to me as a mountain-pile, but they have all been laid on Jesus, and His blood is peace. It is all done for me. I have nothing to do but to keep clinging to Jesus till I see Him."

I wonder, when she spoke of having had all her sins laid on Jesus, whether Alice was thinking of that verse which says, "All we, like sheep, have gone astray; we have turned every one to his own way; and the Lord hath laid on Him the iniquity of us all."

How well it was for her that she had learnt to know her Saviour before the time of illness came; for she was then so weak and so very, very tired that she could not think much; but only, as she said, "keep clinging to Him." And as she grew weaker and weaker, I am sure the Good Shepherd taught her that even if she could not cling to Him--and it was no longer "the weak clinging to the Strong, but the Strong clinging to the weak"--she was safe, for He has said of His sheep, "I give unto them eternal life; and they shall never perish, neither shall any man pluck them out of My hand. My Father, which gave them Me, is greater than all; and no man is able to pluck them out of My Father's hand. I and My Father are one."

Alice had near her bed, where she could always see it, a beautiful picture of a shepherd with a lamb upon his bosom. She was very fond of looking at it, and saying how it made her think of herself. "If you see a flock of sheep going along the road, and one of them is very weary," she said--one day when she was very tired, and her feet were very hot, so that she felt as if they would never be cool again--"you would not like to see them go on driving it, but would wish to see the shepherd take it in his arms to the fold." She asked that these words, "My Beloved is mine, and I am His," should be put upon her gravestone, saying that it was her favourite text; and against her name in the family Bible she wished them to write,... "so He bringeth them unto their desired haven."

When she was almost Home, her father spoke to Alice about the many she had to love on earth, and the many in heaven; for two little sisters, Constance and Eva, were already with the Lord. Looking up with a smile, as if she really saw the One who had been her Friend in life, and from whose love death could not separate her, she said softly, "Whom have I in heaven but Thee?"

I think these were her last words; a little before, she had said, "It seems strange to be going where you can none of you come with me; but He is there, and that is enough."

If you are like the rest of my young friends, you do not mind having the Spider's history interrupted, that we might think of this sweet story of Alice, and how she too "tried the ropes," and found them "all right." But there was one great difference, was there not? The spider's ropes are spun out of his own body; they are twisted so strongly and firmly by his own feet; but Alice knew that if she was to be safe in life and in death, nothing of her own was strong enough to hold by; she could be saved only because the Lord Jesus Christ had finished the work which God gave to Him

to do. It was because Alice knew Whom she had believed that she could say she had tried the ropes and found them all right; she knew they would bear \_any\_ strain, and so she could answer that question about being afraid, and reply that she had no fear whatever.

I want just here to copy for you some beautiful lines, written by one who "fell asleep in Jesus" when he was quite young, not yet sixteen; they were found in his pocket-book.

"Oh! I have been at the brink of the grave,  
And stood on the edge of its dark, deep wave;  
And I thought, in the still calm hours of night,  
Of those regions where all is for ever bright;  
And I feared not the wave  
Of the gloomy grave,  
For I knew that Jehovah was mighty to save.

"I have watched the solemn ebb and flow,  
Of life's tide which was fleeting sure though slow;  
I've stood on the shore of eternity,  
And heard the deep roar of its rushing sea;  
Yet I feared not the wave  
Of the gloomy grave,  
For I knew that Jehovah was mighty to save.

"And I found that my only rest could be  
In the death of the One who died for me;  
For my rest is bought with the price of blood,  
Which gush'd from the veins of the Son of God;  
So I fear not the wave  
Of the gloomy grave,  
For I knew that Jehovah is mighty to save."

How happy it was for his parents to read these words in their dear boy's own writing, after they had laid his body to rest in the grave which had no terror for him!

But to return to our Spider, or Spinner, as his name means. You have not only watched him coming down from the ceiling upon his own strong rope, spinning it longer and longer as he travels, but have seen him crawling along the ceiling head downwards, and perhaps wondered that he did not fall. If you were to look at one of those eight feet of his through a microscope, your wonder would be turned into admiration, as you saw the beautiful little brushes by which he is enabled to cling fast to the smooth surface, and walk along the ceiling as securely as you do on the floor.

And now I will leave you to read in some interesting book how prisoners have tamed House-spiders, and about the Water-spider which has been known to spin its nest in a tumbler of water, and the great Americans, as large as sparrows, which catch tiny birds; for it is time to pass on to the Insect family. But I must first tell you a story about a Tarantula, a very large spider, which lives in the south of Europe, as well as in tropical countries, and makes holes for itself about four inches deep in the ground.

Two officers from India agreed to spend their furlough together in a visit to Australia, the one for the sake of making researches in natural history, the other for any chance interest or amusement that might offer itself in a new country.

The former, Dr. Prendergast, was one day writing in his log cabin, when a huge Tarantula spider gently lowered itself from the roof by its slender cord, and dangled in front of him. "Ha!" said the naturalist, making sure of the handsome specimen that had thus unwittingly come within his reach, "I'll have you, my good fellow"; and taking a valuable pin from his necktie he made a dexterous shot, and pierced him through the body.

To his dismay, however, the spider, quite equal to the occasion, turned and bit him so sharply that he drew back with a cry, and before he could recover himself, the Tarantula had scrambled back up its rope, bearing the pin with it, and was again safe in its hiding place in the roof.

Now as the pin contained a precious stone which Dr. Prendergast had had set in order to carry it about in safety, he was exceedingly annoyed at this loss, and he and his companion searched the roof with care in the hope of finding it; but all in vain, and Dr. Prendergast could only reproach himself with having made such a foolish experiment.

A few days later he was again writing in the same position, when he beheld his enemy the spider once more descending from the roof, and to his surprise and joy it carried with it the pin, still sticking through its body. This time our naturalist made no vainglorious display of his power as a marksman, but beating down the spider with the nearest object at hand, he again possessed himself of the lost treasure, now doubly valuable on account of its extraordinary adventure, and his mother, for whom he was preserving the beautiful stone, afterwards wore it, set in a small brooch.

There are six "orders" of Insects, arranged according to their form, and the number of their wings, and one of each is chosen to represent the whole class.

First, the Beetle.

Second, the Grasshopper.

Third, the Dragon-fly.

Fourth, the Bee, the Wasp, and the Ant.

Fifth, the Butterfly, and the Moth.

Sixth, the Fly and the Gnat.

I wonder which of all these we had better discuss; for there are such wonderful things to tell even of the tiniest creeping and winged creature, that I only wish we had time for them all--the honey-making bees and the paper-making wasps, the many coloured dragon-flies, the moths, the

butterflies and the beetles--but as we must choose one out of this great family, it shall be the "wise" and busy little ant: for how are we to learn the lesson which God has given her to teach us, if we do not, as He bids us, "consider her ways?"

Before we attempt to do so by noticing her "city," so full of life and bustle, suppose we ask ourselves for a moment how it is that we see so very few insects in winter. Did you ever stand very still, in the silence of a clear frosty day in the country, and wonder what made all around so strangely quiet?

One reason is, that the myriads of insects, whose hum and buzz make a good part of the noise and stir of a summer afternoon, are all gone. No whirring wings rush past; there is no sound of "dragon-fly, or painted moth, or musical winged bee" to break the stillness; all the insect-world seems dead, or flown south with the swallows--though, as there are still spiders' webs to be seen, each delicate thread marked in sharp outline, like the rigging of an icebound ship, it would seem that there must still remain some unwary fly to be taken in the beautiful snare.

But are they all dead and gone, those happy winged things that danced up and down in shady nooks, or so lately shone like jewels in the sunshine? Where are the topaz-coloured butterflies that glanced from flower to flower, the emerald tiger-beetles, the ladybirds, and the grasshoppers?

Some of them are indeed dead; their little life, bounded by a few summer days, was soon lived out; they have laid their eggs, making careful provision for the protection and food of the young ones which they will never see--for the eggs of insects will bear the cold which so soon proves fatal to their mothers--and their little hour of work in this busy world is finished; but many more are only very fast asleep. Like the dwarfish Esquimaux, when their long dark winter comes, and they draw their mossy blankets over them, they are taking their winter rest, and lie hidden safely in depths of soft moss, or beneath the bark of some ivy-grown tree, or deep in the lap of Mother Earth herself.

And with many of them, before they wake to life again, such changes will have taken place that they will come forth from their hiding-places like new creatures, fitted to enjoy a new mode of living. It is not difficult to see that this winter-sleep, or torpor, is no wasted time, but a means by which God has ensured the lives of hosts of His creatures which, having no extra clothing to protect them from the frost, and no power of migrating to a land of sunshine and plenty, would otherwise be liable to perish during the long season of cold and dearth.

So when

"Bright yellow, red, and orange,  
The leaves come down in hosts,"

those insects whose life is in "the herb of the field" have the instinct ("that power," as it has been well explained, "of doing without thinking what we do by thinking") which makes them seek out some safe shelter or

quiet hole, and there give themselves up to sleep, awakening only when the time of the singing of birds has come, and all the green things are sprouting and budding, and there is food for them everywhere.

Those who have watched this mysterious slumber, tell us that when it begins the insect is as if benumbed, and will move when touched; but that as the cold increases, the torpor deepens, until the little dormant creature seems no longer to breathe, but lies to all appearance dead, until the warmth of the sun shall break the spell, and call it up to life again.

We are a long time reaching the ant-city, but it would be quite an insult to the Insect-family to give no thought to the most wonderful thing about it--the "transformations" by which many of its six-legged members pass through their three distinct stages of existence; so it will be well to turn over a few pages in the story of the Butterfly, one of the family-branch called Lepidoptera, because its wings are covered with thousands of tiny scales, which enclose the colouring that makes them as softly tinted as the flowers upon the nectar of which it feeds.

[Illustration:... "Little butterfly, indeed I know not if you sleep or feed."]

When we, by rough handling, brush the bloom off a butterfly's wing, we have really torn away these delicate scales.

Let us suppose we have been so fortunate as to find a Red-admiral, the most gorgeous of British butterflies--often found late in the summer near nettles, because its caterpillar used to like their leaves better than any other.

We will look at this beautiful insect and see what it is, and then go back in its history and find out what it was.

It has six feet, and its head bears two horns or feelers ("antennae," they are called), two large eyes which, when seen under a microscope, seem as if cut like precious stones, and a trunk like that of an elephant, which it can uncurl so as to suck the honey from the very heart of the flowers. Its legs are hairy, and very little used; its body, light and slender. Of the broad, beautifully-marked wings, generally erect when at rest, we need not speak, for it would be impossible to describe them.

Now for a page or two in the early history of this brilliant creature.

We will go back to the time when it was a tiny egg, laid by the mother Red-admiral shortly before her own death; this egg soon develops into the "larva," or caterpillar--the word, which means a mask, expressing that the butterfly that is to be, is thus disguised in its first form.

How admirable are God's orderings--the same spring sunbeams which, as it were, waken up the living creature sleeping in the egg deposited by Mrs. Red-admiral, also cause the green things, upon which it will feed so voraciously, to appear!

For the little worm is a tremendous eater; it seems to do almost nothing

else during its grub existence; but eats and grows, eats and grows; constantly changing its skin for a new one in order to obtain room for itself, while it is laying up a store against the time when it will be unable to take in food.

At last it really seems tired of eating, and after it has cast its skin four times, the fifth one becomes thick and hard, and the caterpillar hangs itself by a fine silken thread of its own spinning to a twig, and passes into its second stage--that of the "pupa," or chrysalis, from which it will awaken, a thing of life and beauty, to live in the air instead of crawling.

[Illustration: (A) CATERPILLAR; (B) CHRYSALIS.]

The name "pupa" or doll, was given to the creature in this stage, because long ago people thought the way in which insects are thus enclosed was somewhat like the way in which the babies used to be wrapped round in bandages or "swaddling clothes": it is also called a "chrysalis," because sometimes dotted with gold or pearly spots. But the wonder of it is that inside that narrow shell lies an insect quite unlike the caterpillar which lay down to rest; a creature with legs and wings beautifully folded, all ready for use when the time for its release has come.

How little we dream, as we watch a caterpillar crawling along a leaf, of what lies hidden beneath its skin! Yet I have read of a naturalist who proved for himself that it was actually so. Having killed a full-grown caterpillar, he let it remain for a minute or two in boiling water, then gently drew off the outer skin, and beheld to his delight "a perfect and real butterfly." But though I tell you of this, I do not wish you to try the experiment, as he warns us that it requires great care, for the limbs of the butterfly are very tender and small, and folded in a very complicated manner. Nor should I advise you to try hatching butterflies like chickens, by enclosing some chrysalides in a glass shaped like an egg, and placing them under a hen, though it has been done successfully!

There seems no doubt that all the while the caterpillar sleeps within its chrysalis, it is being made ready for the new kind of existence it is to enjoy; and just as, while the grub lay dormant in the egg, its food was being prepared, so while the butterfly that is to be sleeps in its dark tomb, the flowers upon which it is to live are slowly unfolding to the light.

And now, what words can describe the wonder of the \_third\_ chapter of this story of life in its changes? The pupa dies and falls to pieces,

"An inner impulse rends the veil  
Of his old husk,"

and the butterfly comes forth, a glorious creature, "a living flash of light" whose home is in the sunbeam!

What a change! No wonder that it has so long been looked upon as a parable and type of resurrection, an image of what will come to pass when the Lord Jesus comes, according to that promise which was a comfort to that little



girl in the Children's Hospital, for His own--whether they have "fallen asleep in Jesus," or are living on this earth--and all "they that are Christ's at His coming" shall be "changed in a moment, in the twinkling of an eye."

To both alike the Lord will give a body of glory, "fashioned like unto His glorious body," a body which knows not, weakness or suffering or death--"a spiritual body."

You remember--do you not?--that a type is but a very small and faint picture of the real thing; yet, when you see a butterfly, and think of what it once was and what it has become, let it preach its little sermon to you; say to your own heart, "If that wonderful moment, which is so soon coming, were to come just now, should I be one of those who are Christ's at His coming? Would my body be changed and made like His glorious body? Should I 'be caught up together with them' (those who 'sleep in Jesus') 'in the clouds, to meet the Lord in the air,' and so be for ever 'with the Lord'?"

And now as we turn from the wonderful story of the butterfly, in which we may, as has been said, "see the resurrection painted before our eyes," to the busy little ants; let us see that it is the sluggards, the lazy persons, who are especially told to "consider" their ways. To do this we must visit them in their own home, which we shall find in some pine-wood, like the "pincushion-wood," or in some grassy thymy spot, covered with little green tufts. Each of these grassy hillocks is an ant nest, and if you look inside you will find that it contains a great many tiny rooms, connected by galleries. Some of the rooms are hollowed out below the surface of the earth; these are the cellars where the baby-ants are kept warm in cold weather, while in summer they are taken by their watchful nurses to the cool upper storeys.

Now I have read that every ant-city has its wary sentinel, to keep watch and ward, and give warning of the approach of the foe. And when he does give warning there is a great hurry-scurry in the town; young ants, whether in their larva or pupa stage, must be carried down to the cellars for safety, and all the provisions which have been collected and stored with so much care must also be removed to a secure hiding-place. But who is to accomplish all this?

If you notice carefully, you will see that it is a mistake to think of these insects as all of one kind, and you may have heard that they have been divided by those who have studied them, into three classes--males, females, and neuters.

It is about the neuters we will talk now, for these busy, unselfish little creatures do all that has to be done; the whole work of the ant-city is left to them. It is they who collect the food--and very clever hunters they are, carrying their prey, whether alive or dead, right home to the nest; it is they who build the nests with their chambers and galleries, and bring up the little ones. Yet these earnest little workers have no wings, and must toil along upon their feet, while the ladies and gentlemen lead much easier lives, and fly about at will.

Still I do not think the workers are to be pitied, for they know their work, and do it in a very beautiful and unselfish way; and we must not forget that when the earth was in all the freshness of its beauty--no serpent's trail, no touch of fallen ruined man to mar its perfectness--"the Lord God took Adam, and put him into the garden of Eden, to dress it and to keep it." As an old writer says--"What was man's storehouse was also man's workhouse; his pleasure with his task ... if happiness had consisted in doing nothing, man had not been employed."

A child, who has been set to watch beside the cradle of a baby brother or sister, and wants very badly to be off to play, may learn a lesson of patience from the way in which these little workers take care of the babies which are their special charge--for I suppose an ant's egg may be considered in its tiny way like a baby in its cradle.

These eggs are at first so small that you could scarcely see them, and they would probably never become living ants if not diligently tended; but under the care of their nurses they soon grow larger, and at the end of a fortnight the baby ants creep out, not bigger than grains of sand, but with head and wings complete. The first want of every living thing is food, so the nurses begin to feed their charge by placing the little open mouths to their own, and giving them the food which they have stored. Then I have watched them carrying them up and down, that they may enjoy the warmth of the cellars or the air and sunshine of the upper rooms, just as if they had a thermometer to tell them the exact amount of heat or cold that was needed. And I must not forget to tell you that part of the duty of the nurses is to keep their babies white and clean, and this they do not neglect, but wash them with their tongues, as pussy washes her kitten.

Even when their nurslings are full-grown, and begin to spin a silken cocoon round themselves, and it would seem as if, being no longer in need of food, they might be left to themselves, the untiring workers do not give up their charge. We may see them carrying little oval bodies carefully about: and these are the cocoons which they take to the top of the nest every morning, and back again at night. Most wonderful of all, they have an instinct which tells them when the perfect insect within the cocoon is ready to escape from its prison-house, and also that it is not strong enough to force its own way through. Working three or four together, very gently and patiently they open the silken covering, just where the insect's head lies, cutting the threads one by one until a hole is made, large enough for the young ant to crawl through.

When at last released from what has been its cradle and its prison, the tiny creature is still wrapped in a thin covering, which the kind nurses remove. They carefully stretch out the wings of the males and females, and pile the empty cocoons outside the nest ready for building; for waste and disorder are unknown in an ant-city.

Nursery days ended, the young insects are now shown "all over the house," conducted from one "winding stair" to another, taught to know friends from foes, fed and petted, until they take their airy flight beyond the reach of the wingless caretakers of their infant needs.

By-and-by you will read more about how the workers, by their busy toil,

"Raise such monstrous hills along the plain  
Larger than mountains,"

in proportion to their own small size; you will read also strange stories of how they collect the eggs of those little green insects which you may see in such numbers upon a rosebud, and tend them with great care--because these tiny aphides are their "cows," and they "milk" them by gently stroking them with their antennae, and so obtain a kind of honey--also how the red and black ants occupy the positions of masters and slaves, the blacks doing all the hardest work, and being kept strictly indoors; and how it is not all work, even with the workers, for they have been caught at play, having high games of leap-frog and hide-and-peek!

Interesting as is the mode of life among our ants at home, not less so is that of those found in Southern Europe and in Syria, as well as in India. They are called "Harvesters," because they "prepare their meat in the summer" by gathering the seeds of grasses, and storing them in granaries against the winter. I have watched long trains of these ants going and returning with their loads, keeping their "own side" as carefully as if passengers in London streets. A naturalist who was watching such a train, once strewed a number of grey and white beads about, and waited to see what would happen. One unsuspecting ant seized a bead and trotted off with it to the nest; but not so a second time; the mistake was soon found out, and the (to them) worthless beads were left untouched by the wary workers, who before they stored the seeds in their granary, took off the chaff and left it in heaps outside, to be blown away by the wind.

It has been thought strange that the seeds thus collected do not sprout and grow, but for this moisture would be necessary, and the ants keep their grain as free from it as possible, spreading it out in the sun to dry, and storing it in granaries, underground like the nurseries, but quite distinct from them.

If you have ever disturbed one of their nests, you do not need to be told that ants, as well as bees and wasps, have stings, with a "poison apparatus" like that of a serpent.

How wonderful are these tiny creatures made by God, who has set them in their places in His creation, and given them their work to do, and the instinct which enables them so faithfully to play their part in the great world, that they are set as a pattern for us to imitate! How true it is that

"Each shell, each crawling insect holds a rank  
Important in the scale of Him who framed  
This scale of beings; holds a rank which, lost,  
Would break the chain, and leave a gap behind  
Which Nature's self would rue."

And what may we learn from the Harvester-ant, who "provideth her meat in the summer"?

I think I can hear you answer, "A lesson of prudence and foresight."

Surely this is so: "The ants are a people not strong but they prepare their meat in the summer"; on this account they have their place among the "four things which are little upon the earth, but they are exceeding wise," and we do well to consider their ways and learn the lesson which they teach us.

Before we quite leave the ant-city, I should like to tell you that the eggs of ants grow while hatching, to accommodate themselves to the increasing size of the tiny creature within them. There are many interesting things to be observed about the eggs of insects; as to their colour, they are generally of that best adapted for concealment; as to the way in which they are hatched, I have heard that the mother insect--the Earwig was the one mentioned--sometimes sits upon her eggs, and that one of the spiders has been seen sitting upon the silken bag which contained its eggs, and carrying it away if disturbed.

I ought to have told you that there are two great divisions of the insect family--those which suck liquid food through their proboscis or trunk, such as flies and butterflies, and those--such as the beetles, bees, and locusts--which bite and eat solid food with their jaws. Dearly as I should like to tell you about bees, both "solitary" and "social," "masons" and "carpenters," we must not make this chapter longer, so we will speak only of the Locusts.

If I could let you have a peep into the box where I keep a specimen-locust, which came to me by post from his native country, you would notice his powerful jaws, which are so strong that they inflict a severe wound; but it is not on account of their bite that locusts have been used by God as His "exceeding great army" to punish those who hardened themselves against Him; but because wherever they alight in their countless myriads, they devour every green thing, turning a fruitful field into a barren desert in a few hours.

[Illustration: THE LOCUST.]

Did you ever see as well as hear a grasshopper? The locust is an insect of the same kind, and I have heard that African locusts in the first stage of their life are as green as grasshoppers, but wingless--though they afterwards have very pretty wings. They are described as crowding together, "standing upon each other in heaps four or five deep, or gradually advancing over each other's backs, eating all before them."

A flight of locusts is indeed a wonderful sight. An African traveller once saw advancing towards him a dark cloud; the seeming storm came nearer and nearer; ah! it was no snow-storm or hail-storm, but a living cloud of locusts. He thus describes it, as it came upon him and his companions:

"Each flake of snow was a locust; we stood with our backs to them, and they struck us over the face and ears; we had to protect our eyes with our hands; the ground where the flight had settled was soon bare, and the trees leafless." Can you wonder that such a storm-cloud should be dreaded beyond

any other, and that when the Egyptian sky was darkened by it--and "before them there were no such locusts as they"--Pharaoh besought that God might be entreated to take away this "death" from him and from his land? And they were not the only creatures used by God at that time to punish the proud and wilful king who refused to let His people go that they might serve Him.

But we must now end this long chapter, remembering that we have spoken of only a few of the living creatures which belong to the vast family of animals which have no body framework or skeleton; you can read in larger books the wonderful things which are told about jelly-fishes and sponges, bees and wasps, flies and gnats, and green tiger-beetles--for when we have made a beginning in these little talks of ours together about God's creatures, it will be pleasant to go on; so pleasant for some of us that, having once begun, the difficult thing will be to know where to leave off.

I wish I could show you some pictures which I have seen of fossil insects. I believe white ants and dragon-flies, and even a butterfly, have been found among the rocky strata, but those of which I speak were preserved in amber, which is a clear yellow substance, long thought to be a mineral, but now recognised as the hardened resin of ancient pine-trees. In this transparent sepulchre bees and wasps, gnats, spiders, and beetles have been buried, some uninjured, and others with broken legs or wings. They must have got into the sticky gum while it was moist, and been unable to escape--and so have lain for ages in their transparent tomb.

I wonder whether these verses, which came to my mind while we were speaking of the lessons we should learn from those creatures which faithfully use the wisdom given them, are new to you.

"\_Never man spake like this man\_."

"From everything our Saviour saw,  
Lessons of wisdom He would draw;  
The clouds, the colours in the sky;  
The gently breeze that whispers by;  
The fields, all white with waving corn;  
The lilies that the vale adorn;  
The reed that trembles in the wind;  
The tree where none its fruit can find;  
The sliding sand, the flinty rock,  
That bears unmoved the tempest's shock;  
The thorns that on the earth abound;  
The tender grass that clothes the ground;  
The little birds that fly in air;  
The sheep that need the shepherd's care;  
The pearls that deep in ocean lie;  
The gold that charms the miser's eye:  
All from His lips some truth proclaim,  
Or learn to tell their Maker's name."

CAROLINE FRY.

THE FIFTH DAY.

"FOWL OF THE AIR, AND FISH OF THE SEA."

"\_And God gave Solomon wisdom and understanding exceeding much.... He spake also of beasts, and of fowls, and of creeping things, and of fishes.\_"--I KINGS iv. 29-33.

"\_The fowl of the air, and the fish of the sea, and whatsoever passeth through the paths of the seas.\_"--PSALM viii. 8.

We have already seen that it was on the FIFTH DAY that the two great oceans--the world of air above, and the world of water below--were peopled with inhabitants; that "God saw that it was good," and that all these happy living things began their life blessed by Him who gave it.

I wonder whether it will surprise you to hear that in some respects the inhabitants of these two worlds are alike.

Perhaps if you think of a fish and a bird--say a herring and a sparrow--you will say two creatures could hardly be less like each other; the bird has soft warm feathers, and the fish has scales, overlapping each other as the slates on the roof of a house do, thus making a perfectly waterproof coat for its whole body; the bird has legs and wings, and the fish has neither; the bird can chirp and sing, while fishes generally make no noise.

But if you could look inside the feathers and the scales, you would see that there is a likeness in the bony structure of these creatures, otherwise so unlike. Both are vertebrate animals, though the backbone of a fish is in some respects unlike that of a bird, still the plan is the same, and it has been truly said that "among the many wonders of nature there is nothing more wonderful than this--the adaptability of the one Vertebrate type to the infinite variety of life to which it serves as an organ and a home." But when you said that the herring had neither legs nor wings, you forgot to notice the fins, by means of which it moves from place to place in its watery home; as the bird, on its strong wings, makes its way through the fields of air. Birds too, lay eggs, and so do most fishes, some of them even making nests; so there are points in which they resemble each other, are there not?

But while we know a good deal about the ways and habits of birds, very little is known of the life of a fish; for it is much more difficult to watch its way of living, and what is known about animals has been learned by watching them patiently.

Sometimes when you are in a boat sailing over very calm, clear water, you may look down and see the fishes darting here and there, and you may even think that if the boat would but stop you could catch one in your hand; but the only way in which you can really watch fishes sufficiently to see their

mode of life, is by studying the habits of those which have been caught and put into glass tanks in an aquarium, where they live and move about just as birds do in their cages; only the fishes' tank must contain water as well as air.

Some time ago I went to an aquarium; it was close to the sea, so that there was no want of water to fill the tanks. At the bottom there was sand, and there were bits of rock, among which brown and green seaweeds were growing, in order that the prisoners might forget that they were shut up in a glass prison-house, and feel as much at home as possible in their captivity.

There they were, big fish and little fish, flat plaice and long serpent-like eels--fish of all sorts, of all shapes and sizes. There were other creatures as well as fish; lobsters and crabs and star-fishes; and the anemones, which "blow flower-like," and have such lovely colours that they are sometimes called "sea-roses," were waving their bright fringes to and fro, and catching the shrimps for their dinner with those same soft fingers of theirs. I should like you to see an aquarium such as this was; but if you cannot just now, I daresay you may have the chance of watching a gold-fish in a globe of water, and noticing how it uses its fins to balance itself and steer its way through the water, and its tail to move itself along so gracefully and swiftly; how it has two pairs of fins, which serve for legs and arms, besides three others, the use of which you cannot so well make out; and how the boat-like shape of the fish helps it to cut its way so rapidly through the water. If you keep drilled those two bright eyes over which God has made you officer, you will notice something near the fish's eye which keeps opening and shutting like a little door. That little door covers the gills, and it opens and shuts every time the fish breathes. But now comes a question which used to puzzle me--that is, What does a fish breathe?

[Illustration: A CRYSTAL-WALLED PRISON]

When I heard, long ago, that fishes cannot breathe if they are taken out of the water, I used to think that they breathed the water; for then I knew no better than the boy who, when he had at last caught a minnow, put it into a bottle with plenty of water, and corked it up tight, in order to keep his prize safely.

Of course the poor little fish was dead before he got home. It died, not from want of water, but from want of air; for fishes draw in and send out the air through their gills, which are to them what your lungs are to you.

Those fringes which you see when the little doors open, are the gills. They are so red because they are filled with blood; indeed, they are made of a great number of little blood-vessels. As the fish swims along with its round mouth open, it does not swallow the water, but lets it run over its gills, and then out it comes at the little doors; the red fringes take the oxygen out of the water, and it goes into the fish's blood. The water is the fishes' atmosphere, and it is only from it that they can get air to breathe; so that if the glass globe were broken, and the pretty goldfish were let fall upon the carpet, unless they were quickly put back into water they would gasp and die from want of air; just as you would, if someone

held your head long under water.

So you see that the home of the fish is perfectly suited to it. In the aquarium you would observe that while most of the fishes dart hither and thither, there are some which never rise to the surface of the water. These are the flat-fish; and they keep at the bottom, because for some wise purpose God has made them without the power of rising and sinking like others.

Inside most fishes there is a bag filled with air, as is the india-rubber ball which you delight to bounce so high. The fish can make this little balloon larger or smaller, just as it wishes to be itself lighter or heavier. As it swims along, it is usually about the same weight as the water; but when it wants to dive, the fish squeezes its air-bag tightly together, which causes its body to become heavier than the water--for air pressed closely together becomes heavy, and its own weight sinks it down. When it wants to rise again to the surface, it ceases to squeeze this bag, the air in the little balloon expands, and the diver rises again and floats or swims because its body is now lighter than the water.

Is not this a very perfect and beautiful plan? How true it is that God has provided for the wants of all His creatures, and fitted them for the life designed for them!

But besides rising or sinking when they please, fishes can turn themselves about very quickly. To understand how they do this, you must look at the long bone which runs right through the body, from head to tail. You will see that it is made, like your backbone, of a number of small bones which move upon each other so easily that they enable the fish to turn itself rapidly, as you see it does. The wonderful way in which these tiny bones are fitted together by what is called the "ball and socket arrangement" may best be seen in a large fish, such as the salmon; but a sardine's frame is made in the same beautiful way.

The scales, overlapping each other as they do, serve to protect the fish in its journey through watery ways, and their smooth, polished surface rendered slippery by a sort of natural oil, helps it to move quickly. We have imitated the scales of a fish in the way in which we arrange slates and tiles to keep our houses dry. You know how the slates on the roof of your house overlap each other, so closely that no rain can get between them.

When I tell you that there are said to be nine thousand different kinds of fish in all parts of the world, you will understand that even in a large aquarium you can see but few varieties. In England alone hundreds of fresh-water fishes are known, while those whose home is in the sea are much more numerous still.

It has been found that if fresh-water fish is taken out of its natural element and put at once into the sea, it will die. But there are some fish, like the salmon, which live in the sea, but go up the rivers to lay their eggs, and then back again to their proper home; taking "change of air," as it were, but taking it gradually, and not plunging into a foreign country



all at once.

Some fishes are great travellers. I have heard that what is called a "shoal" of herrings consists of millions of fish, and takes up a place in the sea larger than the area of London. This fish takes its name from an old word which means an army; and the herring-army has to come a long, long march--if we so speak of a journey through "the paths of the seas"--before it, as it were, encamps near our shores.

In winter the herrings are far away north, within the Arctic Circle, but in the spring they go south, travelling in shoals, six miles in length, and three or four in breadth.

When one of these great shoals comes near our northern shores it divides, one part travelling west, the other east. It is in September that the herring fishing begins, and a busy time it is for the fishermen.

The fish are always caught at night, and the darker the night the better chance there is of a good catch. When I was a child I used often to stand and watch the boats setting out about sunset, and many a time did I wish I might be of the party, for I thought no treat could be greater than to be allowed to stay out all night and see the nets full of shining fish drawn in over the sides of the boat. However, the fishermen are too wise to take children with them, for any noise frightens the herrings, so the fishing is done in silence, under the quiet stars. If you saw a herring-net taken in, you might forget yourself so far as to scream with delight at the sight of the fish flashing like silver, and bright with blue and purple hues which no painter could copy. But the rainbow colours, like those you see upon a soap bubble, are almost as soon gone; they will have lost their brilliancy before the boats come in, and the men begin to throw the fish on shore, and to count them.

One fish, "the Arrow of the Sea," is never so beautiful as when it is dying. I have read that the Romans--after they ceased to be a brave people, and became idle and pleasure-loving--used to have these fish brought in before dinner and shown to the guests. The gay, thoughtless ladies, as they clapped their hands with delight at the beauty of the quickly-changing colours--white turning to sky-blue, and then to deep red--cared no more for the suffering of the poor fish, gasping and dying before them, than for the fading petals of a rose; so hard-hearted can people become, who think only of their own pleasure. If poor Jack had been there, it would have made him grieved and angry indeed to have seen one of the "God-made" creatures treated so cruelly, would it not? You remember how he loved all living things, and could not bear that they should be hurt.

From the Gold-fish, with their brilliant, flashing scales, you can form some idea of how brightly coloured the fish in tropical seas are; but the most brilliant fishes have not always the most graceful forms, nor are they so good for food as those better known to us.

It is very interesting to observe that the sea-creatures which live upon the surface of the ocean are bluish or quite colourless and transparent, as some jelly fish, which look as if they were made of glass, and one kind of

fish of which I have heard that its body is so transparent that the words of a book can be read through it. Others, not very unlike, but whose home is at the bottom of the sea, have opaque and mud-coloured bodies. We find that many creatures are of the same colour as their dwelling-place; butterflies are bright, like flowers, insects living on leaves are green, desert creatures are yellow or sand-coloured, those which live among the snow are white or grey, while the winter lasts, though some of them change their coats during their short summer. In this way the hunters and the hunted alike escape observation.

Fish have been divided into different classes: there are those which have bony plates instead of scales, as the Sharks and Rays, and many fishes which exist only as fossils; and those called the "splendid" fish, from the brilliancy of their coats of mail, which lock together like ancient armour. Most of them are extinct species, but the Sturgeon is one of these armoured fishes. Then the Mud-fishes form another class. But by far the most numerous is that to which the Bony-skeletoned fishes, with scales like those of the Salmon, belong. A few species are destitute of any bony or scaly covering; and one of them--the Electric Eel of South American rivers--protects itself by giving a sharp electric shock to any creature that comes in its way!

The eyes of fish are sometimes large, and they can see a long way, and also hear very quickly. Turbot, plaice, and other flat-fish, which have no swim-bladder, lie with one side in the mud at the bottom of the sea or rivers--Can you guess in which side of the head their eyes are placed?

"In the uppermost, and sometimes both eyes are there."

You are right, for there would be no use for an eye in the side turned to the mud.

As far as we know, fish are not clever creatures, but I have heard that some kinds, kept as pets, have learnt to know the sound of the dinner bell just as well as the lions and tigers at the Zoo know their bell; and you have seen how they rush about their cages, and roar with hungry impatience when it rings. I have read that some fishes of various kinds, such as Cod and Ling, kept for the use of the owners in a pond to which the tide came, near a house in Scotland, and regularly fed with limpets by an old woman who had charge of them, knew her voice, and would put out their heads and crowd to the side of the pond when she came near, and even let her take them up and stroke their cold backs; but I doubt that you will find your gold-fish so intelligent and affectionate.

I must not forget to speak of the fishes which make nests, for very few such have been discovered, and they are considered curiosities of fish-life. Perhaps when we know more of the habits of the finny-tribe, we shall find that some others provide for the safety of their young in a similar way, but at present I believe the Stickleback, which not only makes a nest but takes care of his young brood until they are six days old and can "find for themselves," is the only one known in Europe. In Demerara, a fish called the Hassar makes a floating cradle of grass or leaves for its eggs, over which it watches carefully, being ready to defend it bravely

when attacked; thus in Australia, an eel called the Jew-fish was one day noticed swimming round and round a clear place among the reeds, and it turned out that it was guarding a nest of stones which it had placed in the river bed.

There are one or two strange fishes which you will not see in any shop; though if you have friends who "follow the sea," they may have told you of the Sun-fish, sometimes caught in the west of Ireland; very large and round it is, of a silvery-white colour, so that on dark nights, when the fishermen have seen it shining as it swam, just under the water, it has seemed to them like the sun shining behind the clouds on a showery day; and they have given it this name.

You may too, have heard strange tales of another round fish, called from its shape the Globe-fish, and from its skin the "Sea-hedgehog"; it is covered with sharp thorns, and has the power, by swallowing air, of so greatly increasing its size (without sharing the fate of the poor toad in AEsop's Fable) that it not only can rise to the surface of the water, but float as long as it pleases. Then there are the blue Flying-herrings, with long fins, which you would see if you took a voyage to Australia. These poor little creatures have enemies both in birds and fishes. When the sharks want to make a meal of them, they leap into the air, using their long fins almost as a bird uses its wings, and are able to keep up for some distance; some say they can fly five hundred feet; but alas! when they are on the fin, the sea-gulls are eager and ready to pounce upon them, and they have to take refuge in the sea again. With all their beauty, they have a hard life of it, constantly escaping away from the sea-gull, into the shark!

And now, when we have time, I think both you and I shall be pleased not only to observe carefully the fishes which we see every day, but to read about others; about the sword-fish, which has neither scales for its protection, nor teeth, but whose snout forms a bone, four or five feet long, set with sharp pointed teeth on each side--somewhat like a double-edged saw; this bone is a most formidable weapon when used against large fish, and is so strong that it has even pierced through the planks of a boat; about the tiny Sea-horse, with its head so curiously like that of a horse, and its wing-like fins; about the Whale, which is not really a fish at all (and why it is not will be something for you to find out), besides a great many monsters of the deep of which I have not time to tell you. We have already had a much longer talk about fish than my children had, although it was while we were speaking about fishing, and how the night is the usual time for it, that we read two accounts of great numbers of fish being caught in the sea of Galilee--not at night, but in broad daylight.

One account is given in the gospel of Luke. You know that--the disciples, Simon and Andrew his brother, and James and John his brother, were fishermen, and used to launch their boats upon the Sea of Galilee, and let down their nets into the deep blue water. It was when they had been fishing all night, and had caught nothing, that they left their boats beside the sea, and were busy washing their nets.

[Illustration: "THERE IS NOT A BREATH THE BLUE WATERS TO CURL."]

Fishermen feel very downhearted and disappointed when the morning comes, after they have been out all night, and finds them with only a few fish in their boats: but these fishermen had got one fish. Peter said, "We have toiled all the night, and have taken nothing."

The Lord Jesus knew all about that long night of toil, as He sat in Peter's boat, and taught the crowds of people who stood on the shore; and He knew how disappointed those tired fishermen must be. Presently He spoke to Peter, and said, "Launch out into the deep, and let down your nets for a draught. And Simon answering said unto Him, Master, we have toiled all the night, and have taken nothing: nevertheless at Thy word I will let down the net."

Night is the best time for fishing, and all night they had toiled in vain. The empty nets were there; but in Simon's boat was the One who had made the fish, and He caused them to fill the nets in such numbers that the slender cords broke, and both the boats were overladen.

"When Simon Peter saw it, he fell down at Jesus' knees, saying, Depart from me; for I am a sinful man, O Lord."

He felt what it was to be in the presence of the Lord; how unfit he was to be near Him; but yet he could not bear to let Him go; Jesus said to Peter, "Fear not; from henceforth thou shalt catch men."

"What does it mean?" May asked, when she had read this verse, "How could Peter catch men?"

To find the answer to her question, we read in the second chapter of Acts about the first time Peter preached at Jerusalem, and how he told the very people who had taken Jesus of Nazareth, and "by wicked hands" had "crucified and slain" Him, that God had raised Him from the dead, and "made that same Jesus, whom ye have crucified, both Lord and Christ." We read that while he spoke of Him three thousand people received his word gladly. Surely at that time there was a fulfilment of the Lord's promise to him. Peter had indeed become a fisher of men--rescued from the cold waters of death, caught away from the grasp of Satan, henceforth to belong to Christ for ever.

But before this time there had been that other scene beside the Galilean lake, of which we read at the end of the gospel of John.

Again after a weary night's fishing, the disciples had taken nothing; again, at the word of the Lord, the net was cast over the side of the boat, and drawn in "full of great fishes."

The Lord Jesus, after he rose from the dead, was still the same, always thinking of His dear disciples, and caring for them. You remember that He would not allow the crowds of people, who had come from far to hear them, to go back to their homes hungry and tired, but that He made them rest on the green grass while He fed them with the loaves and the little fishes. Now He knew all about Peter and James, and John and Thomas, and those two

others who had gone fishing with them. They had been out all night, and were very hungry, and directly they came to land they could see that their Lord had been thinking of how they would feel; for all that they wanted was ready--a fire of coals on the shore, and fish laid upon it, and bread--and they heard the voice which was so dear to them, that well-known voice which had once come to them across the stormy waves saying, "It is I; be not afraid," now bidding them, "Come and dine." And it was from those kind hands, which had been pierced when He suffered the cruel death of the cross, that they received the bread and the fish which was prepared for them.

What a wonderful time to remember! I think Peter must have been thinking of it when he said to Cornelius, We "did eat and drink with Him after He rose from the dead." Perhaps he also thought of another time when the Lord asked for some food, "and they gave Him a piece of a broiled fish, and of an honeycomb. And He took it, and did eat before them"--to show them, while they yet believed not for joy and wondered, that it was indeed Himself who was standing among them, risen from the dead.

You will find that there are a good many places in the Bible where fish are spoken of. I hope you will have in your list one which was given me by Sharley only; although I had expected that everybody would have found it. It is mentioned in the gospel by Matthew, alone. We are not told what sort of fish it was in whose mouth Peter found the "stater," a piece of money worth about three shillings, which was exactly enough to give, as the Lord told him, to those who had come to ask for money to meet some expenses belonging to the temple. Every Jew paid a fixed sum, and this piece of money in the fish's mouth was just twice that sum. How beautiful that the One who was God, and had power over the fish of the sea, to send them into Peter's net, or to make even a fish bring to Him the coin which was wanted, should put Himself beside Peter, and say, "Lest we should offend them, go thou to the sea, and cast an hook, and take up the fish that first cometh up; and when thou hast opened his mouth, thou shalt find a piece of money: that take, and give unto them for Me and thee"! Ah, but we know that the Lord Jesus Christ was "meek and lowly in heart" and He loved to put His disciples with Himself, as children of God His Father!

A writer who lived at the time when our "King James's" Bible was translated, speaking of the sea as "the great pond of the world," says, "We know not whether to wonder at the element itself, or the guests which it contains."

As we have been learning a little of the ways of the inhabitants of the ocean of air, as well as those that people the world of water, let me close this chapter by quoting an American poet's beautiful verses:--

"TO A WATER FOWL.

"Whither, midst falling dew  
While glow the heavens with the last steps of day,  
Far through their rosy depths dost thou pursue  
Thy solitary way?"

"Vainly the fowler's eye  
Might mark thy distant flight to do thee wrong,  
As, darkly painted on the crimson sky,  
Thy figure floats along.

"Seek'st thou the plashy brink  
Of weedy lake, or marge of river wide,  
Or where the rocking billows rise and sink  
On the chafed ocean side?

"There is a Power whose care  
Teaches thy way along that pathless coast--  
The desert and illimitable air--  
Lone wandering, but not lost.

"All day thy wings have fanned  
At that far height the cold, thin atmosphere;  
Yet stoop not, weary, to the welcome land,  
Though the dark night is near.

"And soon that toil shall end;  
Soon shalt thou find a summer home, and rest  
And scream among thy fellows; reeds shall bend  
Soon o'er thy sheltered nest.

"Thou'rt gone; the abyss of heaven  
Hath swallowed up thy form; yet on my heart  
Deeply hath sunk the lesson thou hast given,  
And shall not soon depart.

"He who, from zone to zone,  
Guides through the boundless sky thy certain flight,  
In the long way that I must tread alone,  
Will lead my steps aright."

W. C. BRYANT.

THE FIFTH DAY.

FLYING FOWL.

"\_Gavest Thou the goodly wings unto the peacocks? or wings and feathers  
unto the ostrich?\_"

"\_Doth the hawk fly by Thy wisdom, and stretch her wings toward the  
south?\_"

"\_Doth the eagle mount up at Thy command, and make her nest on high?\_"--JOB  
xxxix. 13, 26, 27.

"\_The flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land.\_"--SONG OF SOLOMON  
ii. 12.

It was on the FIFTH DAY of Creation that the silence was broken by the voice of birds. We are so accustomed to the various cries of animals, the buzzing of insects, and above all to the chirping and twittering and singing of birds, that we can hardly imagine what a voiceless world would be like.

I have heard that far away in New Zealand, travellers who try to make their way through the great tangle of trees and creepers which is called the "Bush," speak of the silence and loneliness of the dense forests as dreadful, and they particularly mention that there is no voice of bird to be heard there. Very different is a place I know, where, although the trees in which they perch are by the roadside, and noisy carts and carriages are coming and going all day long, yet the sparrows overhead keep up such a constant chatter and flutter that once as I passed that way a countryman looked up at the trees and smiled, and said to me, "Plenty of company up there!"

When I told the children this they were much amused, and I am sure they thought it would be very dull never to hear the crowing of a cock or the "quack, quack" of a duck--to say nothing of the soft cooing of doves in the wood, and the sweet, rich notes of the thrushes and blackbirds.

A Frenchman, who has written a very large book all about birds, says that if we were not so accustomed to them we should think a bird flying through the air the most wonderful thing we had ever seen--and I think he is right; but before we speak of these wonderful and beautiful creatures, let us read once more the verses in Genesis which tell us of their birthday, beginning with, "And God said," and ending with, "And the evening and the morning were the fifth day."

We have been speaking of the living creatures which the waters brought forth, and now we must think a little of the "winged fowl," which were made to people the "expansion," and are sometimes called the "fish of the air," as the fishes are called the "birds of the ocean."

Of all the happy living things I think none \_seem\_ so full of joy as the birds. Their very flight has such buoyancy and gladness in it, and their songs seem always to be telling of happiness. Did you ever watch the sea-gulls flashing and darting about, and then floating quietly above your head, or the swallows in their rapid flight, wheeling round and round, and think how beautiful a thing it is just to see them on the wing, fluttering, soaring, floating in that ocean of air which is their home?

[Illustration: A "WINGED FOWL."]

Birds are marked off from all other vertebrate animals by the possession of feathers. How wonderful is the wing of a bird; spread wide when it is

flying, and folded up like a fan when it is resting, perched upon the branch of a tree, swaying to and fro in the sunshine. But how sad it is to see such a wild, free creature as a lark, or even a thrush or a linnet, pent up in a narrow cage, where there is no room to stretch those wings so strong and light, no swinging branch to rest upon; but all the little prisoner can do is to hop from one perch to another, and beat its wings against the "wiry grate" which shuts it in so hopelessly. I suppose we don't think so much of captive birds as of other captives, because a bird in a cage is such a common sight, and when we hear it sing so sweetly it seems as if it could not be unhappy; but when we say "as happy as a bird," I doubt if it is of birds in cages we are thinking after all.

The cage may be of gilded wires, or of willow twigs; but both are alike prison bars which keep the birdie back from the liberty to which it was born. At least this was what an English sailor felt when he met a man carrying a cage full of birds. He had been a prisoner himself, away in France, and had many a time longed to be free; and now when he saw the birds in their gilded prison, he was not happy until he had made a bargain and got them, cage and all, to do what he liked with. What was the astonishment of the man from whom he had bought them, when he saw the sailor open the cage door and let them out, one by one, until all the little prisoners were free!

As you have watched the birds in their flight, I daresay you have wondered how they can keep themselves up in the air. Even the little wren has some weight; much more the crows which make their nests in the topmost branches of the trees. We say "as light as a feather"; yet the downiest feather has some weight, and will find its way to the ground if not kept up by wind or breath.

It is true that the "feathered fowl," as all kinds of birds are called in the Bible, are very much heavier than the air in which they float and swim, using their wings for oars, just as the fish use their fins. But do you remember that little balloon inside the fish, which enables it to rise through the water? A bird is almost a live balloon; as it flies, it breathes air into every part of its body; this air becomes heated, and is kept warm by the feathers; and as hot air becomes light, the bird is so much lighter than the air which surrounds it, that it can easily rise higher and higher, until, like the skylark, its little quivering body seems almost lost in the far blue sky, and its "waterfall of song" alone shows where it is.

[Illustration: "THE WHITE SEA-GULL, THE BOLD SEA-GULL, A JOYFUL BIRD IS HE."]

The bones of a bird are very strong, but they are also very light; if you look at the bones of a chicken, you will see that some of them are hollow; when the bird was alive, those hollow places were all filled with air. Take a dead bird and look at the quills at the roots of the feathers; and now watch that swallow as it darts so rapidly hither and thither. The bird is able to fill each tiny quill with air, so that its body becomes like a balloon, and it rises high above the roofs of the houses; then, like the fish, when it wishes to sink, it can breathe out all the air again, and so



constantly change its weight, and fly, now high, now low, faster than any train can rush or ship sail.

There is a wonderful bird which sailors have seen a thousand miles from land. It is called the Frigate-bird, and has never been known to rest on the sea; it lives upon sea-creatures, but makes its nest on shore. Each of its wings, if stretched out as when the bird is flying, measures more than the height of a man; yet even such an enormous bird as this does not sink down by its own weight, but flies mile after mile upon its strong wings, every feather of which unites strength and lightness, never resting till its airy voyage is over, and it finds its nest. It is said that when storms sweep over the sea, this "ocean eagle" mounts upward until it has reached the calm which lies above the storm, and so sails upon its untroubled way.

The feathers of birds are to them what its scales are to the fish, and hair and wool to other animals--a protection. They are not only light and strong, but warm, and by their means, as a bird soars into colder regions of air, it is protected from the cold: while for aquatic birds there is a special provision--by pressing with their beaks an oil-gland near the tail they can waterproof their feathers! Now look again at your dead bird; you will see that the wings and tail are formed of quills, while the surface of the body is covered with short feathers--even the ear being protected by a little tuft--and all the spaces between are filled with the softest, warmest down. Could any creature be more beautifully equipped for its journey through the fields of air?

Then this soft, warm, light dress is renewed once or twice a year, generally so gradually that the change is imperceptible--but you may have seen fowls and ducks straggling about the farmyard with half their feathers gone--on the principle of being off with the old coat before they are on with the new.

The eyes of both fishes and birds have an extra lid formed of very thin skin, which can be moved quickly over the surface of the eye, serving to cleanse it and protect it.

There are three thousand distinct kinds of birds, but it would be impossible to learn about so many, they have been divided into five groups--birds of Prey, Perching birds, Scratching birds, Wading birds, and Swimming birds.

I must tell you that Chrissie and Sharley and May had learnt something about these groups from a book of which they are very fond; it is called The First Year of Scientific Knowledge, and there are pictures in it of the different birds, beasts, and fishes which are mentioned.

Now, let us think of some of the birds in the first group. Birds of Prey are those which hunt for their food, and eat the flesh of other birds, or of small animals, such as rats, and mice, or of snakes. All these birds--vultures, hawks, owls--have sharp hooked beaks, and long claws, also very sharp; they fly quickly, and soon overtake their prey, whether they hunt by day or by night.

The two birds of prey most often mentioned in the Bible are the Raven and the Eagle. You remember how, when the terrible flood, which God sent upon the earth because of the violence and wickedness of men, was over, and the Ark rested upon the mountains of Ararat, Noah opened the window of the Ark, and sent forth a raven. This bird of prey could find food for itself, as it "went forth to and fro, until the waters were dried up from off the earth," and it never came back to Noah; unlike the gentle dove who found no rest for the sole of her foot, but twice returned to her refuge, the second time carrying in her bill the fresh green "olive-leaf plucked off," which showed Noah that the waters were indeed gone. How wonderfully God, who feeds the young ravens which cry to Him, used those birds of prey to bring to Elijah "bread and flesh in the morning, and bread and flesh in the evening," all the time that they were commanded to feed the prophet in his lonely hiding-place by the brook Cherith. The Raven is the patriarch among birds; it lives to be a hundred years old--beyond the age of man!

The Eagle, the king of birds, is a large and beautiful creature with very strong wings, and has its home in rocky places, difficult to reach. Like all birds who live upon prey which they catch alive, it is bold and fierce. There is a verse which speaks of it as "hasting to the prey." Eagles seize rabbits, hares, lambs, and young deer, and have even been known to attack a pony. They often carry off ducks and wild birds to their rocky eyrie, as food for their young ones. The Sea-eagle lives upon fish which swim near the surface of the waves; it sees them afar off with its keen eyes, and darts down upon them.

[Illustration: "THE OWL WILL BUILD BESIDE A BARN, OR IN A HOLLOW TREE."]

Most likely you remember the story of the Highland mother, whose baby was carried away by a great eagle, and how she climbed the steep rocks until she reached its nest, and rescued her child. Her strong mother-love took away all fear of the dreadful height which even a young sailor feared to climb, and of the wild birds who flapped their great wings at her, and then fled screaming away; but I need not say more of this Scotch story, which you may have so often heard, so I will tell you of what happened once in Switzerland to a little girl about five years old.

She was playing near her mountain home, when a great eagle saw her, darted down, and was just catching her curly little head in its strong talons, when a man with a gun, not far off, fired. He had been watching the eagle, but did not see the child, or he would have been afraid to fire, lest he should kill her. When he came to pick up the dead bird he found the little girl beside it. She had been saved by the shot which killed the fierce eagle; but I have heard that when she had grown to be a woman the scars of deep wounds made by its talons upon her head could still be seen. No doubt she often heard the story of how God had saved her from a double danger, and by-and-by she felt that she must ask Him to make her His servant all her life long, God heard her prayer, and allowed her to go as a missionary to a far-off land.

There is a beautiful verse in the thirty-second chapter of Deuteronomy, in which God compares His care for His people to the way in which the eagle cares for its young ones, and teaches them to fly.

I do not know whether you know many of the second group, the Perching-birds; but I am sure you have seen parrots, and heard them too. These clever, gay birds must look beautiful indeed in their forest home in tropical countries, as they flash and gleam in the sunshine; but their screaming--you know what it is like if you have ever paid them a visit at the Zoo--takes something away from their charm. They have been called "feathered monkeys," because they are so well able to climb trees. Look at their dark grey toes, and you will see that two of them are turned forward and two backward, so as to enable them to take a firm hold upon branch or twig. They have such hard bills because they live upon nuts and seeds. You have seen how Polly holds a nut, and shells it with the sharp point of her beak, keeping her eye on you all the time.

[Illustration: "FEATHERED MONKEYS."]

Perhaps you would not think it, but parrots are affectionate birds. A story is told of one that was very fond of a servant girl in the house where he lived. When she had a bad finger he would not leave her, and groaned as he sat beside her bed, as if he were himself in pain; and when she recovered he became quite cheerful again. But I think the account which Dr. Franklin gives of the kindness of a parrot to its mate is more interesting still.

He says he knew two parrots who had lived together four years, when the female became so ill from gout that she could not get down from her perch to reach her food. For four months the male bird went on carrying the food to her in his beak; and when at last she fell from her perch through weakness, he kept constantly near her, trying to raise her, and showing the greatest care for her.

When she could no longer eat, he tried in vain to open her beak, so as to give her food, uttering sad cries; or stood with his eyes fixed on her, mournful and silent. From the time of her death he pined away, and died a few weeks afterwards.

Such stories are very beautiful, because they show, as a lover of animals once said, "what kindness God has put into the heart of His creatures."

Of the Scratching birds, there is none which you know so well as the hen; indeed this group is often called by a Latin name, which means that all belonging to it are of the hen tribe.

Our fowls come from India, but they have been at home in this country for a long time, and are very common in Palestine. If you have ever seen a mother-hen taking care of her chicks, calling them to her when she fears any danger for them, and hiding them beneath her soft warm wings, you will better understand the words which the Lord Jesus spoke when He beheld Jerusalem, the beloved city, and wept over it. Think of these words when you hear the hen call her chickens, and see them all come running to her, and hiding away under her wings, to be kept in safety from some foe which you cannot see, but which she knows to be lurking near, or perhaps hovering above, ready to pounce upon a stray chick and carry it off.

[Illustration: HARK!]

You may often see the Turkeys, Pheasants, Peacocks, and other birds of this Hen-family, scratching up the gravel; and you know, I daresay, that grain-eating birds have a little mill inside them called a gizzard, which grinds their food for them. Birds of prey have no gizzards, because their food does not need to be ground before they can digest it.

The Wading-birds have long bare legs because they live in marshy places, and long necks and beaks to catch the small animals upon which they feed. Snipe and Woodcock have long tapering bills which are alive to the very points with what are called nerves, so that they may be able to feel for worms as they dig for them in the soft sand and mud, where they cannot see them. Two birds of this family, the Stork and the Crane, are mentioned in the Bible in connection with a wonderful power which God has given to some birds, by means of which they know when the time is come for them to leave a country where their food is over and gone, and where the winter is too cold for them, for a warmer land, where they may find food convenient for them, and from which they will know right well how to come back again when spring returns, with its food and foliage. Such birds are called birds of passage; the Swallow is the one you know best, and it also is mentioned in the verse in which so many migratory birds are grouped together, "The stork in the heaven knoweth her appointed times; and the turtle and the crane and the swallow observe the time of their coming." It is God who bids these birds "observe the time of their coming": no one knows why they go south for the winter, nor how they can tell their way over land and sea, and come back again to the very place from whence they took their flight.

The Stork must be to the People in Palestine just such a "guest of summer" as the swallow is with us, for it regularly arrives about the end of March, and flies away in the autumn.

Ships make their long voyages to the other end of the world and back with wonderful regularity, but though the helmsman has a compass to guide him, they do not arrive in port so exactly at their appointed time as the little swallow, who has only the sense which we call "instinct" to guide it; only its own light, strong wings to carry it on its swift way, flying a mile a minute--for even to its little bones and feathers, every part of its body is filled with air, rendering it the most buoyant of winged creatures.

I met with a beautiful passage about migratory birds in a book I was reading lately. The writer says, "Were they planets revolving round the sun, their arrival could hardly be more accurately calculated by the astronomer.... The little birds are guided in their flight through the waste, lone wilderness of the sky, and over wide seas, without a compass or a map or a path, by His counsel and will. And they obey that guidance without the slightest inclination to swerve from it or seek a way of their own...."

"Migratory birds passing from Africa to Europe over the sea, often alight on ships bound in that direction. Not unfrequently ship-captains tell us that they have seen birds of prey, hawks, and owls, appearing on the masts on such occasions in the company of swallows, goldfinches, and chaffinches;

and yet the cruel birds never touched the innocent ones. The migratory instinct seems to subdue for a season the predatory instinct."

I want to tell you more about swallows, and especially a true but sad story of a tame one; but first we will speak of one more group, the Swimming-birds. You may have often noticed a duck's foot, and seen how the "web," or skin between the toes, can be folded up like a fan; or spread out, when the bird is swimming; Geese, Swans, Sea-gulls, the beautiful great Albatross, all these and a great many more of this family; they have a kind of water-wing, which cleaves its way through the streams, and most of them can also fly, although they are heavy birds. I have seen a flock of grey geese sailing on the sea, and the same flock at sunset coming home by a quicker way, looking like dark specks against the evening sky; but it is only wild geese that will fly so far.

Now then, we have had five groups. Let us count them. Birds of Prey, Perching birds, Scratching birds, Wading birds, Swimming birds, and I think I must add one more; for the Passerine, or Sparrow group includes most of the small birds, such as blackbirds and thrushes, nightingales and swallows, larks and magpies, linnets and humming-birds, and I cannot tell how many more "feathered fowl."

[Illustration: FISHING.]

Our story of a tame swallow must follow. There are four kinds of swallows--the Swift, the Chimney-swallow, the House-martin, and the Sand-martin; they all look much alike when on the wing, but there are differences, especially in the sort of nest which they build. The house-martin makes its nest of mud, lined with grass or feathers, against the side of a house, and there lays its beautiful white eggs.

A pair of martins built their cosy nest one summer beneath the eaves of a house in the country, just under the window of one of the bedrooms. Swallows rear two broods every season, and one brood was reared successfully in this nest, but the second was not so fortunate. Late in September--and you know the swallows are off to Africa in October--a servant found a poor little shivering bird on the steps. It was plain that it had tried to fly from the nest, with its brothers and sisters, but had not been strong enough. The poor birdie seemed almost dead when it was picked up, but in the family there was a lady who loved "all things both great and small," and she fed the tiny martin, and made a bed for it in a work basket lined with wool. She was delighted when she saw it tuck its head under its wing, puff out its little feathers, and settle itself to sleep in her basket as cosily as if it had been at home in its parents' nest, and she began to think that she might be able to keep this little deserted bird in an English home while all the other swallows had gone over sea for the winter.

I need not tell you that the little martin gave plenty of trouble and anxiety in his rearing; but at last he got on so well that he was allowed to go out in the garden, and sit upon his mistress's hand, while he feasted on any spider, gnat, or fly which was caught for him. It must have been a pretty sight to see the fondness of this pet bird for the kind friend who

had saved its life. He could not bear to be away from her, but would sit on her shoulder while she was at work or writing, and sometimes nestle under her chin; tiresome enough in his tricky ways of pulling at her thread and snatching at her paper, but still always borne with, because he was such a pet.

One day when his mistress was going out for a long walk, and intended to leave her bird behind, he insisted on going too. And go he did, perched upon her finger; but on the way he became so clamorously hungry that she had to take him into a butcher's shop, and get some meat for his dinner.

She often wondered how long he would stay with her. The swallows had not yet gone; and sometimes he would look up and see crowds of them skimming through the air, and darting about overhead. He would watch them, even call to them and answer their wild cry, then sweep round the room in imitation of their rapid flight; but always came back again to his old place on her shoulder. At last, while there were still flies to be caught; he became so grown up as to begin to catch them for himself, though he had had no parent-bird to teach him; but still he was a tame swallow, liking to have his head stroked, and enjoying his morning bath like any canary.

After all the wild swallows were off to Africa, the little tame martin began to feel the cold. This was what his mistress had been afraid would happen, and she tried in every way to keep her pet warm. She wrapped him in fur, and used to pack him warmly in a little box and take him to bed with her; but she was soon awakened by his creeping out of the box, and nestling under her chin. At sunrise he would career round and round her room, then fly downstairs and begin to make himself very much at home at breakfast, pecking at the butter, and standing upon the edges of the cups; but never so busy as not to dart to his mistress at the sound of her voice. Indeed he was so unhappy when away from her that she used even to take him railway journeys, because she did not like to leave him behind. This way of travelling, however, did not suit the little passenger-bird, for he was always in a fright, and glad to get home again. But many a country walk he took with his mistress, perched on her shoulder or her wrist, much to the wonder of the country-folk, who used to crowd around and ask questions about such a rare bird as a tame swallow. Sometimes they would shake their heads and say, "Well, well; did ever anyone see the like? I'll never shoot another swallow."

As the winter came, all these pleasant walks were over. The poor birdie began to droop; it was impossible to keep him warm, though he often crept under the parlour fender, to get as close to the fire as possible; and in spite of all that loving care could do, before the end of the year his bright little life had been lived, and all his clever tricks, and airy flights and loving ways were over.

The lady missed her pet sorely; and next summer when the low twittering of the swallows was heard again, as they came back to their old home to build once more, she watched them at their work with many a thought of her lost birdie.

This is why I said it was a sad story; but we must not forget that the lady

really saved the life of the poor bird, when it had fallen from the nest. If she had stolen it away from its parents, and tried to keep it in our cold country when they had gone to Africa, she would have blamed herself, and felt that she had been the cause of its death. It is cruel to take young birds from the nest, for it is a great grief to the parent-birds to lose their little ones; and it is so difficult to rear them, that they are almost sure to die, in spite of the great care you take of them. Some boys are fond of collecting birds' eggs, and know a great deal about them. A collection of eggs--of all sizes and of all shades of colour, from pure white to bluish green, or speckled grey--is a pretty sight; but if you go nesting, be careful not to spoil the beautiful little cradle which the parent-birds have made with such labour and care. And if you take one, or even two, eggs for your collection, be sure not to touch the others, or it may be that the birds will desert them. I well remember the delight of finding a robin's nest when I was a child; but my brothers and I were not allowed to touch the eggs. We were told they did not belong to us, and this certainly was nothing more than the truth.

It is beautiful to see God's care for all His creatures, especially the helpless ones. When He was teaching His chosen people in the olden times about things which are pleasing or displeasing to Him, He told them a good deal about how they were to treat the animals. You would hardly expect to find anything in the Bible about bird-nesting; and perhaps you might think that if a boy found a nest with eggs or young birds in it, he might take the young ones or the eggs, and if he chose he might take the mother-bird also.

But God said--

"Thou shalt not take the dam with the young; thou shalt in anywise let the dam go, and mayest take the young to thee, that it may be well with thee."

He who cares for the sparrow would not allow the mother-bird to suffer by perhaps seeing her little ones die while she was shut up in a cage, too fluttered and frightened to help them; and He would teach us to be merciful and tender-hearted towards those who cannot defend themselves or plead their own cause, "even as our Father in heaven is merciful."

I should like you to read in some nice book all about birds, a great deal about their ways, and especially about the clever nests they build, of which I have not time to tell you now. Also, I should like you to find out all you can for yourself. You may at least learn to know by sight and by sound some of our own songsters. It is often said that English birds have sober plumage; and so they have, compared with the parrots and the humming-birds that "flit about like living fires, scarce larger than a bee," and the wonderful bird of paradise, which the natives of New Guinea call "God's bird," because it shines with silver and gold--but still we have some very gay birds.

It is true that the goldfinch and the kingfisher are not often seen except in picture-books; but our own little robin is a real beauty, is he not? And what can be gayer than the feathers of some of our cocks, which strut about so proudly? Then, the more you notice the songs of birds, the more you will

admire them. The sweet notes begin before daylight in the spring-time, and the cock-bird seems never tired of singing to his mate as she sits on her eggs. By and by, when they are busy with family cares, feeding the little ones, and teaching them to fly, there is not much time for singing. It is said that every bird has a different note or call. I wonder how many you know? I fancy I can guess: the cock, the rook, the swallow, the thrush, the blackbird, the lark; if you do not know the notes or calls of all these, try to learn them.

Then, with regard to the nests; have you not seen rooks and cranes carrying in their mouths the twigs with which they build theirs in the top of very high trees? And have you not watched these nests swinging about in the wind, and wondered that they did not fall? Some of our birds build in holes of trees, some line their nests beautifully with any soft thing they can find; blackbirds and thrushes make theirs of mud. But instead of describing how the nests of our English birds are made, I will copy for you, out of Leslie's poetry-book, a little poem, which will help you to know where to search for the nests of different birds:--

"The skylark's nest among the grass  
And waving corn is found;  
The robin's in a shady bank,  
With oak-leaves strewed around.

"The wren builds in an ivied thorn  
Or old and ruined wall,  
The mossy nest so covered in  
You scarce can see at all.

"The martins build their nests of clay  
In rows beneath the eaves;  
The silvery lichens, moss, and hair  
The chaffinch interweaves.

"The cuckoo makes no nest at all,  
But through the wood she strays.  
Until she finds one snug and warm,  
And there her eggs she lays.

"The sparrow has a nest of hay,  
With feathers warmly lined;  
The ringdove's careless nest of sticks  
On lofty trees we find.

"Rooks build together in a wood,  
And often disagree;  
The owl will build beside a barn,  
Or in a hollow tree.

"The blackbird's nest of grass and mud  
On bush and bank is found;  
The lapwing's darkly-spotted eggs  
Are laid upon the ground.



"The magpie's nest is made with thorns,  
In leafless tree or hedge;  
The wild duck and the water hen  
Build by the water's edge.

"Birds build their nests from year to year,  
According to their kind;  
Some very neat and beautiful,  
Some simpler ones we find.

"The habits of each little bird,  
And all its patient skill,  
Are surely taught by God Himself,  
And ordered by His will."

The other day I saw a lark's nest. It was made upon the ground; for it is true that

"The bird which soars on highest wing,  
Builds on the ground her lowly nest."

and I had to move aside the grass before I could see it. The parent-birds, I daresay, were somewhere near, but I found only the little ones, looking as if they were almost all mouth, so widely did they open their yellow beaks. If you find such a treasure, and are very careful not to touch, or even to peer and peep too much, you may have the great interest of watching over the rearing of the little family; seeing the parents bring them food, and teach them to fly; and then, when the brood has flown, the deserted nest will belong to you, if you choose to keep it; but I am afraid you would not care for a lark's nest, for it is not beautifully finished, as some birds' nests are, but really only the dry-grass lining of a hole in the ground. The eggs are brown, like the bird itself, which is so beautiful in its song--that lovely song which you can hear even when you can hardly see the tiny singer.

"Far in the downy cloud,"

or but a speck in the deep blue; for the lark will

"Soar up and up, quivering for very joy,"

singing all the time, till he is out of sight--yet never forget that low spot, hidden with grass, where his nest is.

You know why it is said that "the cuckoo builds no nest at all," don't you? May has a verse which calls him "a most conceited bird," because from the time when he comes back from Africa we hear him constantly calling his own name, 'coo-coo, coo-coo!' Still, I don't think the cuckoo should be called "conceited" when it is we who have given it its name from the call which is natural to it; but it is a most unfaithful bird, and leaves its little ones to be brought up by others, not taking the trouble to build a cradle for them, nor will the mother sit upon her eggs. I used to think the

reason why we saw so few cuckoos was because this bird laid only one egg; but I have read that she lays eight, each one in the nest of some bird much smaller than herself. The cuckoo is grey, and about the size of a blackbird; but her eggs are small, not bigger than a hedge-sparrow's or a lark's. She lays her egg on the ground, and then lifts it with her bill into the nest which she has chosen. The stranger bird is hatched first, and always behaves as if the whole nest belonged to him. He grows bigger and bigger, until at last he throws the little sparrows over the side of the nest to make room for himself. When the "woolly bears"--the caterpillars on which they feed--are all gone the cuckoos fly off to find them in South Africa.

How different from this bird is the faithful dove, who would not desert her little one, even to save her own life! I must tell you the story of the particular dove of which I am thinking.

When the famous city of Pompeii--which had lain for eighteen hundred years buried beneath the ashes and mud which fell upon it during a terrible eruption of Mount Vesuvius--was brought to light again, as the workmen were digging among the ruins of what had been a beautiful house, in a niche overlooking the garden they found the skeleton of a dove. They were not surprised that, as the sky grew darker and darker upon that dreadful day, and the soft, choking shower of ashes fell more thickly, many of those who ran for their lives should have lost their way in the darkness, and fallen to rise no more. The skeletons of men and women had been found, just as they had fallen while trying to escape; but this dove, with her swift wings, why did she not flee away? Ah, as they lifted her from her nest the secret was revealed: beneath her lay the egg which the timid, gentle creature, so brave in her love and faithfulness, would not leave.

If you ask me about fossil-birds, I must tell you that very few have been found. However, if you go to the British Museum, look out for a large stone slab covered with footprints of birds. It was taken from a quarry in an American valley, and is a piece of sandstone, which was once soft enough to receive the impress of the feet of the giant wading-bird, probably much larger than an ostrich, which once walked across it with long strides. You will also trace upon it the tracks of smaller birds. In New Zealand very large bones of an extinct bird have been found, but the most remarkable remains have been discovered in Germany of a bird which has been given the name of "Lizard-tailed," because it has a tail with vertebrae, from each joint of which feathers spring. Three claws are attached to the ends of the wing-bones, like the single claw of the bat. What is left of this specimen, which is thought to have been about the size of a rook, is to be seen in the Natural History branch of the South Kensington Museum. I mention this in case you should have a chance of visiting it there.

And now, to speak of those birds which we know best, I think there are none which seem to belong to us so much as these three--the thrush, the blackbird, and the robin; for they are with us all the year. The thrush begins to sing very early, before there are any leaves for him to hide himself among, while the robin's song is heard not only in autumn, but in winter when all others are silent. All these birds feed upon worms and insects, not on grain and fruit like the larks and finches and starlings;

but they are very glad of berries in winter when they can get them.

The other day I met a little boy about seven years old carrying a basket with some dozen snails in the bottom of it, and looking as if he had found a wonderful prize.

"What are you going to do with them?" I said.

"Give them to our thrush. He cracks the shells and eats them, he does."

"Does your thrush sing?" I asked.

"Oh, yes!" he replied. "You can hear him all over the house."

The song of even a captive thrush is sweet indeed; but I would rather hear its voice in a choir of birds singing in the woods.

The blackbird's clear note, like the thrush's, may be heard very early in the morning, and on still evenings, as it "sings darkling" in some leafy bower. Its eggs are bluish green, with dark spots, while the thrush's five eggs are light blue. There are white blackbirds--if such a thing can be--in the Alps, and occasionally in this country; with us you may know the cock by its being very black, while the hen is brownish-black, and I think both birds are best known by the "orange tawny" bill. But neither the blackbird nor the thrush is so pretty as the "little bird with bosom red" of which we are all so fond.

"Our thrushes now are silent,  
Our swallows flown away;  
But robin's here in coat of brown,  
And scarlet breast-knot gay."

Some time ago I was reading the account which a boy, who had always lived in town, gave of his first sight of a robin-redbreast. His master told him to write for his composition all about a holiday which the boys had had given them, so he gave an account of how he had gone for a long day in the country with his father and his little sister. Of all the sights he saw that day, none delighted him so much as to see a robin perched upon a clothes'-prop in a garden--for this bird always likes a high perch--singing with all his might and "showing all his red." This boy had read about robins at school, and learnt verses about them; but when he actually saw one, and heard it sing, he says it made him "tremble all over with pleasure."

A lady, who has told many interesting stories about what she has herself observed, says that one day her gardener was struck by the strange conduct of a robin, which the man had often fed. "The bird fluttered about him in so strange a manner, now coming close, then hurrying away, always in the same direction, that the gardener followed, its retreating movements. The robin stopped near a flowerpot and fluttered over it in great agitation. It was soon found that a nest had been formed in the pot, and contained several young. Close by was a snake, intent, doubtless, upon making a meal of the brood."

This little story seems to show that the redbreast understood that the man who had been so kind was not only good enough but also strong enough to save his little ones from the danger which threatened them. Can you learn any lesson from it?

I have not time to tell you of all the feathered creatures mentioned in the Bible, which were found and written down for me in those nice little three-cornered notes, some of which I still have. You will not be surprised to hear that each contained one reference, and some many more; but the text about which we had most talk was found by Chris--those words spoken by the Lord to His disciples to show how precious they were to their Father: "Fear not therefore: ye are of more value than many sparrows"

The boys wanted to know whether these birds were the same as our sparrows, which are so common everywhere, even in the busy streets London, and so mischievous in the country, eating the grain, and stealing the peas, and nipping off the young buds of the gooseberry-bushes.

[Illustration: Our little English Robin;  
The bird that comes about our doors  
When winter's winds are sobbing.]

I could not answer this question; so we got the Bible Dictionary and read there that a great many of our smaller birds, such as the starling, linnet, goldfinch, blackbird, lark, wagtail, and thrush, are found in Palestine, and that the Tree-sparrow has been seen in great numbers on Mount Olivet; while another kind, the Rock-sparrow, is often found perched upon a large stone, all alone, like the solitary bird mentioned in the hundred and second Psalm.

One, of whose work among the poor of Lancashire you may some day hear, tells us that when he was on a visit to America in 1873, he strolled one morning round a miniature park in New York, glad to find shelter from the hot beams of the sun. Looking up, he saw a great many boxes fastened, some to the stems, some to the branches of the trees. Surprised at this, he asked a gentleman on one of the seats, "What is the meaning of those boxes suspended up there?" and he was told that twelve years before, not a single leaf was to be found upon any of those trees, now so full of beautiful foliage. At that time, a small grub called the inch-worm had the disagreeable habit of breeding in the bark, climbing up the boughs and stripping them of every leaf. Thus it was in the orchards, gardens, and parks in many States of the Union.

At length a thinking man who kept his eyes open, suggested a remedy--to import several thousands of English sparrows, providing them with little wooden houses, and feeding them daily until they were settled in, and contented with their new home. Thousands of beautiful little boxes were volunteered and fixed in the trees, and thousands of young sparrows were brought over. A State law was passed inflicting a penalty of one dollar--nearly five shillings--or a week's imprisonment, on any person who killed one; and most happy was the result. The inch-worm was destroyed, the trees became healthy and green, and now the spirited little English birds

hop and chirp in every garden and park in the Union!

[Illustration: "ONLY A LITTLE SPARROW."]

A restless little House-sparrow would seem an unlikely bird to become tame, but I have heard of one which was rescued, having fallen from his nest, and lived for two years on the happiest terms with his master, who says of his pet bird; "He was only confined to his cage during the morning: from midday until the next morning he was free to go about the house, but was of course mostly kept to one room. He always slept at the foot of my bed, and as soon as it was daylight he would come up and creep into my arms, and nestle there till I rose.... I fed him on seed and sand, but he had food with me besides, such as a little potato at dinner-time, and bread and butter at tea-time."

Does this account of a tame sparrow encourage you to try to attach one of these little birds to yourself? I am afraid it would not be possible unless, as in the case of this birdie, it was one taken from the nest.

The poem about birds' nests tells only of those made by our home-birds, but we can read of wonderful nests made by those in foreign countries. Perhaps the most clever nest-builder is a tiny Indian bird, called the "Tailor," because it actually sews leaves together, using both its bill and its feet, to make a safe hiding-place for its eggs, no bigger than peas, where neither snake nor monkey shall find them. It first chooses a plant with large leaves, then sews a dead leaf to the side of the green and living one, and in the space between the two, it lays its tiny eggs. It gathers cotton from a shrub, and with its long bill and slender little feet works away until it has spun a thread; then, using its bill for a needle, it pierces holes through the leaves, and sews them securely together. Should you not like to see such a wonderful nest, and still more to watch the little tailor--more like a bee than a bird in size--at his work?

[Illustration: TAILOR-BIRD'S NEST]

I will tell you of one more nest; it is of a very different kind, and is made by a swallow which lives in the islands east of Asia, and is generally called the Java swallow. The other day I was reading how one of our princes was entertained in China, and among the dishes on the table "birds'-nest soup" was mentioned. It made me think of how, long ago (when, as I told you, I was so foolish as not to like to ask questions, for fear the grown-up people should think I knew nothing at all), I heard of this kind of soup, and thought how disagreeable it must be to meet with bits of hay and moss in one's soup, and what queer people the Chinese must be not to mind it. Now I know that these nests, which are sold in China for their weight in silver, are made of a clear jelly which comes from the swallow's mouth. The nests are built against the sides of rocky cliffs, so that it is very dangerous work to procure them. I do not know whether the Duke and Duchess of Connaught liked the soup, but it was offered them as a very great delicacy.

Chrissie and his brothers have a canary, and a very loud singer he is. No doubt he was born in England. but his family are foreigners, as you know,

and come from Madeira and the Cape Verde and Canary Islands. But if, as I have heard, they were brought to this country so long ago as the time of Queen Elizabeth, we cannot be surprised that they are so much at home with us now, and will lay their pale blue eggs, and hatch their yellow broods, and live even thirty years in their pretty cages, in which they certainly seem to be as happy as the days are long. I hope if you have a canary of your own, you are very careful to give it its seed and water quite regularly, and to keep its little house as clean as a new pin; for how sad it would be to neglect the happy little creature who is entirely dependent upon you for everything!

I once knew a little girl who had a present of a canary when she was seven years old. I think she was really too young to have the care of a bird, but she was very, very fond of her Dick, and used to bring him home groundsel and chickweed when she went out for a walk, and often had the pleasure of standing upon a high chair and putting a lump of sugar between the bars of the cage as a special treat for her pet.

All went well until one morning, when she opened the cage door and saw, instead of the pretty, pecking, chirping birdie hopping from his perch to greet her, just a soft yellow ball of feathers lying at the bottom of the cage. Ah, the sad story was soon told--her pet had been starved to death, and she had been the cause! This was what nurse told her, when she ran sobbing to her with the poor dead bird in her little hand. "It is very cruel of you," she said; "you just went to your play, and forgot all about your poor little Dick, and now he is dead; you will never hear him sing his sweet song again."

The poor child was too sorry and too frightened to say anything, and yet in her heart she knew she had not forgotten her birdie; she was quite sure that she had filled his glass with seed and given him fresh water, only the day before. This was quite true; but I will tell you what she had done, and then you will see why I said I thought she was too young to have the entire charge of any living creature. After filling the glass with seed, she had put it back again, as she thought, into its place, where there was a round opening for the bird to come and peck at the seeds. But she had turned the glass round, so that the back of it was towards this hole, and the open part right away from her poor Dick, who might peck and peck against the hard glass, but could not get one seed. I think if nurse had known just how it all happened, she would not have said this little girl was cruel for neglecting her bird; but she was a very careless child, and this thoughtless act cost her pet his life, and his mistress many a bitter tear.

Now for one more true story, and then we must finish our chapter about "feathered fowl." You remember the little girl who was so nearly carried off by a great eagle; this story is about a man whose life was saved by an enormous sea-bird, whose wings when spread out measure about twelve feet across. It is called the "Wandering Albatross," and often follow ships in the southern seas a long way, looking very beautiful and majestic as it seems to float in the air. One of these huge birds had been following a ship on board of which was a regiment of soldiers, on their way home to England. Among them was one man, who, though he seemed to care for nobody, and always laughed at those who read the Bible, was very, very unhappy.

God's word says that there is no peace to the wicked, and this poor man never had any rest or comfort, and was constantly disobeying the officers and getting into disgrace. He had no fear of God, and so one morning, when no one was near him, he suddenly jumped over the ship's side into the sea, thinking that he would put an end to his life and his misery.

But just as he sank beneath the waters, God put it into the heart of this poor sinner against his own soul, to cry to Him for mercy; and then in a moment, in His great kindness, He sent the answer to that despairing cry. The great albatross, always ready to pick up anything which was thrown overboard by the sailors came sweeping by. The drowning man put up his hand and caught it by the leg, and such was the strength of the bird that it was able to bear his weight until a boat from the ship came and rescued him. I do not think I should like to tell you this story, which has such a dark and sad beginning, but for its bright ending. It was a long time before this poor soldier recovered; but when he was able to walk about the deck again, all was changed for him. He knew that God had not only, in this remarkable way, saved him from drowning, but there was great peace in that heart which had been so full of trouble; for he had learned to know the Lord Jesus Christ as the blessed Saviour who had loved him and given Himself for him--so I think this is really a very beautiful story.

You will find many of the Flying Fowl of which we have been speaking mentioned in this poem, which reminds us of how God cares for the wildest as well as the weakest of them all.

"WHO PROVIDED FOR THE RAVEN HIS FOOD?

"All the world lay still and silent in the morning grey,  
And at once a thousand voices hail the glorious day;  
For the great Sun, glowing crimson, rises o'er the sea--  
'Welcome Day!' they sing together, 'Day that is to be!'  
Oh, how glad and sweet and joyous is that morning hymn!  
Whilst the golden day is stealing through the valleys dim--  
Thrush and blackbird, lark and linnet, doves that coo and hum  
Wild delight and soft rejoicing, for the day is come.  
Not a thought, of care or wonder what the day will bring,  
For the Father careth for them in the smallest thing.  
There upon the pathless mountains is their table spread,  
All by God are known and numbered, by His hands are fed.  
Some in deep and tangled forests where the berries glow,  
Some, where children's crumbs are scattered on the garden snow,  
Some where, through the river sedges, Mayflies glance and play,  
Some where mountain tarns lie gleaming in the hollows grey.  
For the wild and hungry eagle, for the wren so small,  
All is ready--food and gladness, free to each and all."

FRANCES BEVAN.

Taken by permission, from *Hymns by Ter Steegen and others*. Second Series.

THE FIFTH DAY.

CREEPING THINGS.

"\_His hand hath formed the crooked serpent.\_"--JOB xxvi. 13.

"\_The Lord thy God ... who led thee through that great and terrible wilderness, wherein were fiery serpents, and scorpions.\_"--DEUTERONOMY viii. 15.

"\_The wolf and the lamb shall feed together, and the lion shall eat straw like the bullock: and dust shall be the serpent's meat. They shall not hurt nor destroy in all My holy mountain, saith the Lord.\_"--ISAIAH lxxv. 25.

The "\_creeping things\_" which God caused the earth to bring forth on the Fifth Day are so unlike each other in many respects that we might at first sight wonder that they should have been grouped together; but the more we study Reptiles--so called from the Latin word *\_reptilis\_*, creeping--the more we see that there are many things which this great family of vertebrate animals have in common.

There are four chief divisions of the Reptile family--Tortoises and Turtles, Crocodiles, Lizards, and Snakes.

Most reptiles have a tail and two pairs of limbs, but, as you know, Snakes are destitute of limbs, and seem to move along by a motion from inside, so that they have been said to walk on their ribs. Serpents are covered with horny scales; Crocodiles and Tortoises have a bony covering.

The Tortoise--so called from its twisted feet, or its crooked way of walking--has, as you know, an upper and an under shell which covers its body like a coat of mail, protecting it from every enemy except man. This strong shell is, like that of the snail, a house for the tortoise to live in; but this house is formed by arched bones, and is part of the creature itself. The four feet of the tortoise or turtle, and a curious mouth rather like the beak of a bird--without teeth, but with jaws hard enough to make a bite from it very painful--and a little scaly tail; these are the only parts of the animal not covered by the shields of its bony shells.

The Lizard has both limbs and teeth, but no shell. Lizards are wonderfully active, darting away at the least alarm, so that it is not easy to catch them.

We may think of the Crocodile of the African, and the Alligator of the North American rivers, as enormous lizards; though they are now placed in a class by themselves, on account of their horny covering, which is so strong that it is almost impossible to pierce through it, and so smooth that a bullet will glance off from it. Serpents have neither shell nor limbs. Their vertebrae, as you will see, if you look at any skeleton of a snake in



the Museum, fit very beautifully one into the other; and owing to this they are able to glide swiftly along the ground, to coil their shining length round trees, and to dart their heads in every direction.

In one respect Tortoises, Lizards, and Serpents are alike--they all lay eggs, only the shell is not made of lime and earth, but is soft like leather. They are also cold-blooded animals, like fish. Of tortoises, some live on land, some in marshy places, some in rivers; turtles live in the sea, their lungs being so made as to enable them to remain under water without breathing.

The common tortoise, often kept in gardens, is found in the south of Europe, and is generally not more than nine inches long. Its upper shield is exceedingly strong. My brothers and sisters and I used often to stand upon the back of a pet tortoise which lived in our garden; it did not seem to feel our weight, but I remember finding it no easy matter to keep my feet together upon its smooth back, and none of us could perform this feat unless the tortoise was pleased to stand still while we balanced ourselves upon him. I can, in imagination, see this little tortoise of ours now, not larger than a crab such as you see at the fishmonger's, with its short legs and feet, and its little tail, all covered with scales, sticking out between its upper and under shells. How we used to laugh, when we saw him draw in his head and feet under the shelter of the shell: the only sign he gave of being annoyed at all our pranks! We were told that our tortoise might not die for a hundred years, and I have heard that some have been known to live twice that time; it is a slow sort of life, but we must not forget that, in the poem about the Hare and the Tortoise, it was "slow and steady" that won the race.

I cannot remember that we ever gave our tortoise anything to eat; it must have catered for itself in the garden where it was so fond of burrowing and hiding away, that we had many a hunt for it when it was supposed to be lost. Mr. Wood speaks of a small one which he used to feed with bread and milk. He kept it, not in a garden, but in his own room, where its favourite place was the rug: for it enjoyed the heat so much, that it made many attempts, with its short legs and heavy shell, to climb over the fender in order to get nearer to the fire. I don't remember that our tortoise ever made any noise; but this one, shortly before it died, went about mewing like a young kitten. Far from living to be a hundred, Mr. Wood's pet died so soon that he had no opportunity of seeing whether it would in time get to know him; but a story is told of a tortoise who did take a fancy to one person, and, though he would attend to no one else, would come creeping along at her call, and tap the boot of his favourite with his beak, in token, we may suppose, of his regard. One lady, who had a long-standing acquaintance with a tortoise, having fed him for thirty years, said he would come to her, and to no one else; which looked rather like "cupboard love," you will say.

You may have often admired the tortoise-shell of which combs are made, with its beautiful wavy lines and markings; it is taken from the outside of the shell of the turtle or sea-tortoise, which is caught not only for the sake of its shell, but because its flesh is so good to eat. You may perhaps have seen, as I have, a small turtle at the door of a shop, and wondered where

it came from, and what brought it there. You may be quite sure that it has come a long way, and that the poor creature is soon to be made into soup. Very awkward it looks, poor thing; for its proper home is in the water, and not on the hard pavement; its feet are rather like fins, so that it may be able to make its way rapidly through the water, and it only comes ashore to make its nest in the sand, where it scoops out a great hole with its paddle-like feet, and then covering its eggs over safely, leaves them for the sun to hatch.

I have heard that as many as two hundred eggs have been found in one of these sand-nests; but not all laid by one turtle; for those who hunt for the eggs have watched a crowd of animals come ashore, and have seen one of them dig a deep pit with its broad paws, lay its eggs, and cover them over; then another has done the same, until there have been several layers of eggs: such a nest is a lucky \_find\_; for turtle eggs are said to be delicious food, though some I tasted were very "strong" and nasty.

[Illustration: TURTLE.]

The turtles common in Jamaica, and other islands of the West and East Indies, are great creatures five or six feet long, but they are not difficult to capture, for when once they have been turned over on their backs, the shell is so heavy that they cannot, owing to the shortness of their legs, turn themselves back again, but lie helpless on the sand.

Of Lizards, the second division of the Reptile group, I doubt if you have seen any, except in the Reptile-house at the "Zoo"; for although there are two kinds of these active little creatures in our country, they do not often court our society. The common lizard, about six inches long, with very bright eyes, has a tail which is so brittle, that if you were to catch hold of it, it would break right off, and its late owner would dart away to its hiding-place, leaving the old tail in your hand; itself growing a new one.

The Sand-lizard, also found in England, is about twice the length of the common lizard: it lives on sandy heaths, and like the turtle, lays its eggs in the sand, to be hatched by the sun. But neither of our lizards is so pretty as the little green one so common in the warmer countries of Europe. It may be seen on walls, or by the wayside, basking in the sunshine, and now and then darting at a fly. The whole species are, like the butterflies, summer creatures, and hide themselves safely underground before winter comes.

In the Reptile-house of the Zoological Gardens, I have often stood to look at the largest kind of lizard; for the Crocodile, that huge animal with its green glaring eyes, and its armour made of bony plates with sharp ridges, is but an overgrown lizard. If you wish to form some idea of what it is most like, you can look at one of the beautiful little newts which live in some pond or ditch near you, and fancy it magnified many, many times, and then you will not have a bad notion of the crocodile, the lizard of Africa, or of the Cayman or Alligator, the great lizard of the New World.

[Illustration: CROCODILE.]

The word crocodile means a creature which dislikes saffron; so it would be of no use, I suppose, for us to offer that lazy-looking animal floating in his tank, looking as lifeless as the trunk of a tree, with his nose and a little ridge of his mail-clad back alone appearing above the water, a saffron bun--to say nothing of his being a creature whose appearance does not seem to invite us to come to close quarters, or to hold any communication with him. But we have little idea of what these enormous reptiles are really like, when we see them so far away from their native haunts. It is thought by some that the "\_leviathan\_" spoken of in the book of Job, whose "teeth are terrible round about," is the crocodile; for its mouth is larger than that of any other animal, and is armed with very sharp teeth. Dr. Smith tells [Footnote: "Nile," "\_Dictionary of the Bible\_", p. 621.] us that crocodiles were once so plentiful in the East, that the great river of Egypt swarmed with them, and the Egyptians, who made almost everything into a god, worshipped them and made mummies of them, as they did of birds, cats, and snakes.

I have often thought that when the mother of Moses long ago laid that child who was "fair to God" in his bulrush cradle among the reeds by the river's bank, her heart must almost have failed her as she remembered the terrible crocodiles; but she had faith in God, and He suffered no wild beast to molest that little ark. The crocodile feeds upon fish, and any animals which he can catch, when they come to the banks of the Nile and other African rivers to drink. Though it is clumsy in its movements on land, it makes its way swiftly through the water by means of its tail; sometimes it opens its terrible jaws, gives a great yawn, and then shuts them again with a sound which is heard far away. Mr. Arnot, a missionary in the heart of Africa, tells us that the crocodiles in the great river Zambesi drag the game which they catch under water, and so drown them, and then hide them under the river's banks. He says, "I used to watch these animals come up with perhaps a quarter of an antelope, and by firing at their heads I compelled them to drop their supper, Which my men picked up from their boats." The crocodiles' eggs are about the size of goose-eggs, and are said to be good to eat.

Herodotus, the "Father of History," tells a curious story about the crocodile and the Nile bird. He says, "When the crocodile takes his food in the Nile, the interior of its mouth is always covered with flies. All birds with one exception flee from the crocodile: but this one bird, the Nile bird, far from avoiding it, flies towards the reptile with the greatest eagerness, and renders it a very essential service. Every time the crocodile goes on shore to sleep, and at the moment when it lies extended, with open jaws, the Nile bird enters the mouth of the terrible animal and delivers it from the flies that it finds there. The crocodile shows its recognition of the service by never harming the bird."

I have heard that the flies which molest the crocodile are gnats, and their devourer a kind of plover.

Near Karachi, in India, there is a swamp caused by hot springs, which is inhabited by crocodiles. There are over two hundred in the tank, which has been walled in, as they are considered sacred creatures. Buffaloes stand

in the water unharmed, but any other animal which came within reach would be instantly devoured. A rash young Englishman once made the tour of this tank, alive with crocodiles, by walking on their horny backs!

Alligator is only the Spanish name for all lizards, so called in allusion to their having legs like arms. The great American lizard, known by this name, is not so large as the crocodile; it loves heat, and will bury itself in the mud in cold weather. It feeds mostly upon fish, and will drive them before it in a shoal, until they have got into some creek or narrow bend of the river, and then stun them by blows of its great tail. Mr. Waterton, who knew the South American rivers so well, tells us that he once came upon what he thought a pretty sight--a number of young alligators, about a foot long, playing about on the sand like so many rabbits. He also tells a story, which might have had a sad ending, saying [Footnote: *Life of Charles Waterton*, p.56] that when he was anxious to secure an alligator, which he much wished to stuff, with its tough skin uninjured, he would not allow his men to shoot at him, but actually jumped upon his horny back and rode him along the sandy river-bank until the poor creature was tired out, and the daring rider secured his prize. I daresay you would like to see the picture which one of his friends made of him, riding upon his dangerous steed.

We may form some idea of this naturalist's feat from what he tells us in another part of his book about his "wanderings." "One Sunday afternoon," he says, "when a good many people were standing about on the banks of the Orinoco, never dreaming of danger, a great Cayman came suddenly out of the river, seized a man, and carried him off beneath the water, so that he was seen no more."

How sad it would have been had Waterton shared a similar fate, in his effort to get the alligator's skin! Life is a precious gift from God, and no one has a right to risk his life in a rash foolhardiness, which is very different from the true courage which does not shrink from facing danger if the life of one more helpless than himself is in peril.

But while we know that no one has a right to give up his life unless at God's desire, and that it is wicked in His sight for anyone to risk losing his life unless at God's command, we must not forget that there is no risk for those who count not their lives dear to them for Christ's sake. He spoke some solemn words about "loving" and "hating" life, which His servants should ever remember.

You will be interested to know that the alligators' eggs are laid in a nest made of grass on the banks of a stream, and that they often travel for miles across forest or prairie from one stream to another. The nest is raised higher and higher by a fresh layer of grass, cut with the great water-lizard's sharp teeth, every time more eggs are laid, until it is as high as a cock of hay. The eggs take a month to hatch; but as soon as the young alligators are out of the shell, they are quite able to run about and get their own living.

A gentleman who was looking after some building in a lonely part of South America,

"Where on the mighty river banks,  
La Platte and Amazon,  
The Cayman, like an old tree trunk,  
Lies basking in the sun."

caught a baby-alligator, and made it so tame that it would follow him about the house like a dog.

It must have been a strange sight to see this little creature, born in a rushy swamp, scrambling upstairs after his master; but stranger still to see him lying on the rug before the fire, with his head resting upon the cat, of whom he had become so fond that he was restless and uncomfortable when she was not near him.

He was fed on raw meat and milk, and was shut up in cold weather, like the tame swallow, in a box lined with wool; but, alas! one frosty night the poor little pet was forgotten, and next morning found him dead, killed by the cold. How often we find that the stories of pet animals, especially wild ones which have been made unnaturally tame, have had a sad ending!

The Blind-worm, so called from its small eyes--and yet these tiny eyes are brighter than some larger ones--is a kind of lizard without legs, and is, on that account, sometimes included in the Snake-family. We may come upon it in hot weather, among the furze bushes upon the common, or the stones of some old ruin. It feeds upon a little grey slug, and is like the common lizard in being so brittle that you can hardly take hold of it without breaking it.

There is one more lizard which I have seen next door to the crocodile tank at the Zoo: a very curious little animal, almost of the same colour as the stick along which it walks, so slowly and silently that you may stand and watch it for some time without being sure that it is moving at all; though its eyes, which can move in different directions at the same moment, and its long thin tongue, so clever at catching the insects on which it feeds, are constantly in motion; but for its eyes and tongue, the Chameleon looks as if it were as dead as the withered branch to which it clings.

The name of this lizard means "Ground-lion," but it is very unlike the king of beasts both in appearance and disposition. The chameleon is found in Spain, in Sicily, and in Syria; its home is in the branches of trees. Many stories used to be told of the way in which it would change colour, not exactly by blushing like a human creature, but by becoming green, yellow, and even black when angry or calm, or when in sunshine or shade; but naturalists who have kept a careful watch upon it do not believe that all that has been said about this is true. There seems to be no doubt, however, that it changes its colour according to its surroundings--a means of protection given to a creature otherwise very defenceless.

[Illustration: "A lizard's body, lean and long,  
A fish's head, a serpent's tongue."]

Serpents--so called from a word which means that which creeps--are

constantly used in the Bible as emblems of deceit and treachery. The words, "More subtle than any beast of the field," may well come to our minds as we watch a serpent, with its limbless body, winding along with that soft, gliding motion to which we have given the name "snake-like."

In the serpent's eyes, too, though they are often so beautiful that we cannot but admire them, there is some of this same dangerous subtlety--an untrust--worthiness which makes us shrink from looking at them.

There are many varieties of this large family; some, like the rattlesnake, cannot climb or swim, but crawl along the ground, the terror of unwary travellers who may tread upon them in the dim forest-paths; others are Water-snakes; some, like the Boa and Python, are dreaded, although not venomous, because, of their enormous strength, and power of crushing their victims in their close embrace; others, like the Cobra, for their deadly bite; while many--we might almost say most--snakes are quite harmless, for it has been reckoned that not more than one in ten is venomous; and none but the giants of this family are dangerous, except for their poisoned bite. The skin of serpents is covered with what are called false scales, which do not overlap each other like those of the fishes, but only seem to do so; and these scales are said to help them to move along rapidly. Most of them are beautifully marked and spotted, and some shine like gold in the sun, while others have pale, soft tints; but these lovely colours fade in death, just as those of fish do; so that a snake in all its glittering beauty can only be seen when alive. They often change their skins, creeping out of the old and appearing ready-dressed in the new. A traveller along the banks of the Nile has often found these cast-off skins in the fields; they are always turned inside out, for the old skin, which is very soft, folds back as the snake slips out of it.

[Illustration: SPOTTED SNAKES]

I suppose the first thought of all of us, on finding a snake in the grass, would be, Is it a venomous one? So I think you will like to know that poisonous snakes are rare in Europe; and Mr. Wood [Footnote: *Natural History* p. 521.] tells us that the Viper, which is our only venomous serpent, is one of those least dangerous to life, although far from a friend to those who shrink from pain. It may be known by dark spots down the back. When we speak of venomous serpents, we mean those whose bite is to be dreaded, because it conveys a tiny drop of poison, which mingles with the blood, and often causes intense anguish, ending in death. In poisonous serpents, the venom lies in a little bag at the root of a long sharp tooth, pierced by a narrow tunnel, through which, at the moment when the bite is given, the poison flows into the wound. If these poison-fangs--one on each side--are taken out, the bite of the most dangerous serpents becomes harmless.

The Indian serpent-charmers of whom you have heard know this, and before they allow themselves to be bitten by the deadly cobras, with which they are so fond of playing their feats of jugglery, are careful to extract their sharp poison-fangs. Snakes seem to have a higher degree of intelligence than is possessed by reptiles generally, and they can be trained to be as playful and friendly as kittens; as you will allow

when you have heard a story which I have read, about some tame serpents which lived in a cupboard, and were allowed to crawl about a gentleman's drawing-room and lie coiled up on the tables and in the arm-chairs--besides being on the most familiar terms with his children.

But we were speaking just now of the Viper, and you remember in the account of the Apostle Paul's stay at Malta how the people who had been so kind to the shipwrecked company looked at him when the viper crept out of the bundle of sticks which he had gathered and laid on the fire, and fastened on his hand? They expected that he would have swollen--for that is one of the effects of the poison--or fallen down dead suddenly; but the Lord Jesus, when He was on earth, said to His disciples, "Behold, I give unto you power to tread on serpents and scorpions, and over all the power of the enemy: and nothing shall by any means hurt you." And when He was going back to His Father, He said to those who believed on Him, "In My name ... they shall take up serpents"; so we are not surprised that His servant "shook off the beast into the fire, and felt no harm."

We must not forget, that although God may now allow what we call a violent death to come to one of His children, whether by the bite of a serpent or by some accident, nothing can possibly happen to them by chance; and whatever dangers He allows them to fall into or saves them from--all that comes is the very best for them that could happen: because "we know that all things work together for good to them that love God."

Though you may admire the "spotted snakes" at a safe distance, in their cages, I know you will not be sorry to hear that in England we have but two kinds--the Ringed or Grass snake, which has no poison-fangs, and is perfectly harmless, feeding upon the frogs which it finds in the marshy places which are its home, and upon mice and young birds; and the common Viper or Adder, which has two poison-fangs, but is not ready to use them, unless it is trodden on, or otherwise provoked. This snake is found in woods, and is fond of basking in the sun. It hatches its young before their birth; so that the viper's brood have not to make their way out of the shell before they can run about.

It is sad that dogs, and sometimes children, have been killed by its bite; but it has not generally been fatal to men. These snakes are fond of cream, and will wind their way into the dairy, and skim the milk-pans, and sometimes visit hen-roosts, and suck the eggs.

The most terrible of the venomous snakes are the Cobra of India--called by a Portuguese name, which means "hooded"; a very grand-looking serpent, which holds its head high, and gives a loud hiss as it rises to strike its prey; and the Rattlesnake of South America.

The Cobra de Capello is a land-serpent, but can swim, and climb trees. It is treated with great respect in Egypt and India; and the people of Ceylon say that it belongs to another world, but has come to pay them a visit. They worship it in their temples, and their priests feed it with sugar and milk, and never allow it to be killed. I believe serpents are not now worshipped in Egypt; but they once were. They are constantly represented upon Egyptian monuments, which are as old as the time when the children of

Israel were in Egypt; and on one of them may be seen three men, who are being offered as sacrifices to a serpent which is represented coiled around the seat of the sceptred king, as if protecting him.

The cobra loves music; and it is upon these serpents especially that the snake-charmers like to show their skill. They take them about, coiled up in baskets. When the performance is to begin, the lid of the basket is opened, and the charmer, seated on the ground, begins to play upon his pipe. Instantly the beautiful snake lifts its head, expands its hood--a loose skin about the neck which it makes large or small at pleasure--and creeps out, waving its body gracefully while the music lasts, and when it ceases, dropping down again into the basket.

Some people have power to charm serpents; I have read a story of a man who, by his music cleared a house of the snakes which infested it; having got into the empty rooms, and hidden themselves in the crevices in the walls. It was a strange sight to see them creep from their hiding-places at the sound of the pipe; but sometimes serpents are deaf both to the voice and music of the charmer--"like the deaf adder that stoppeth her ear; which will not hearken to the voice of charmers, charming never so wisely" to which David compares the wicked.

Since the bite of the cobra is so deadly, it is well that travellers are not likely to meet it; for in the day-time it sleeps in the depths of the forest, gliding silently out at night in search of food. The bold naturalist, of whose alligator-ride you have heard, says that he never saw any snake pursue a retreating prey; so that when a man, threading the mazes of a forest, sees a serpent gliding towards him, he has but to turn into a side path, and be safe. But if a snake is trodden upon, or otherwise roused to anger, it will dart forward upon its enemy, in self-defence; also, if one of the enormous snakes comes upon a man, it may seize him before he has time to run away. Waterton, however, did not know what fear was; and instead of being paralysed with terror at the sight of serpents, once [Footnote: *\_Life of Charles Waterton\_*, p. 55.] caught a large one, the "Bush master," and holding it by the throat so as to make it impossible for it to bite, walked home with its folds coiled round him. He showed his courage at another time quite as much by rescuing a little bird out of the very mouth of a snake in a tree, as by the famous alligator exploit.

[Illustration: RATTLESNAKE.]

The Rattlesnake of South America takes its name from its warning rattle, a sound made by some loose bones at the end of its tail, which knock together when it moves, and so give fair warning of such a dangerous foe being in the neighbourhood. Its bite has been known to cause death in two minutes, and when it does not kill immediately, it produces a dreadful burning feeling all over the body. Horses and dogs show very great terror if they see these snakes; but the country folk are not so much afraid of them as you would expect, for they know that it is the habit of the Rattlesnake to glide away at the sound of footsteps, and as long as the warning sound is heard, they feel safe. If the rattle is silent, it means danger, for the snake is about to spring.



A Frenchman tells us that he once disturbed a mother rattlesnake, and saw it coil itself up, open its mouth wide, and allow the five little ones which were lying beside it to glide in, and hide themselves there. He was very much interested, and waited behind a tree to see what would happen next. In about a quarter of an hour he saw the little snakes come out again; but when he once more showed himself, they hid as before, and the mother quickly glided out of sight.

The Puff-adder of Africa, when roused, will breathe in air and puff itself out to an extraordinary extent. Being, like all these cold-blooded creatures, very fond of warmth, it often comes at night to fires made by herdsmen or travellers; and so it happened that a traveller in South Africa, sleeping soundly one night beside the fire, wrapped in his cloak, was awakened by a weight on his chest, and found to his horror that a puff-adder had coiled itself up inside his shirt. His first thought was to seize the unwelcome visitor and throw it from him, but remembering that it probably would only injure him if disturbed, he had the presence of mind to let it remain in the warm nest it had found for itself, until, roused by a light, it slowly uncoiled itself and crept away.

Of the serpents which are dreaded--not for their bite, for they have no poison-fangs--but for their great strength and daring, and for the way in which they coil round their victims, crushing them to death in their terrible embrace--the most dangerous are the Python of the Old World, and the Boa-constrictor of the New.

In one respect all serpents are boa-constrictors, for a very small one has been seen in the act of thus crushing a bird; but the great boa which inhabits tropical America is a giant, which has been known to swallow even a buffalo whole, after it has crushed it to mummy, and broken all its bones. Boas can swim and climb; they will catch fish as they come near the surface of the water, and drag them ashore; or hang by their tails from some forest tree, and thus lie in wait to seize any animal which may be passing. They are now very shy of men, and not much feared by them; but these great snakes used to be worshipped as gods by the people of Mexico, and some of their serpent-idols have been found in ancient temples--showing how much they were once dreaded; for it is the habit of men to worship what they greatly fear.

The Python, a snake very like the boa, is an object of horror to the people of South Africa; yet they are unwilling to destroy it, because they believe it has an awful power, and say that no one has ever been known to injure a python, without being severely punished in some mysterious way. I have read an account of an adventure which a Dutchman had with one of these serpents, which I must tell you, because of the part played in it by his little dog. You shall have the story in his own words:--"I had in my cabin a large and strong cage, enclosing a python of considerable size, but which appeared to be dull and inanimate. We were lying off the coast of Borneo, where I was detained for some days. When I came again on board, I had not taken many steps before my little dog seized me by the trousers and endeavoured to hold me fast. I shook him off and proceeded, when the dog seized me again, and I again roughly forced him from me. At this juncture my attention was directed to several hatchet-marks on the deck, and I instantly inquired the

meaning. The answer was, 'The snake, sir! the snake is loose!' And so it proved. The reptile had cast his slough, and assumed with renewed beauty all its natural energy. It had forced itself out of the cage, and after doing some damage below, found its way to the deck, spreading consternation among the men; by whom, as it appeared, it had been slightly wounded, hatchets having been used for its destruction. Hence the marks on the deck, and hence the fear of the dog, and its anxiety to detain me from advancing into danger.

"With some precaution I proceeded to the spot where the snake was said to have ensconced himself, and soon observed him lying in coils. The instant he saw me, he raised up full half of his length, and glancing around as if uncertain whether to attack or fly, commenced a succession of violent undulatory movements, the head alternately towering aloft and touching the deck. At last, spying an opportunity, he dashed along with inconceivable rapidity to the other end of the vessel, whither he was pursued; again he displayed the undulations as described, and again darted to another part of the deck. All felt excited, not without a misgiving that some accident might take place. In this manner the chase was continued," the story goes on to say, until the snake received its death-blow from a cutlass. He measured seventeen feet. "I repented of my roughness to the dog," thus his master concludes, "and he was henceforward a great favourite with the men, who appreciated his fidelity and intelligence."

We read in the Epistle of James that "every kind of beasts, and of birds, and of serpents, and of things in the sea, is tamed, and hath been tamed of mankind"; and I have read of some snakes kept as pets by an English family, which were not only perfectly tame, but seemed to be exceedingly fond of those to whom they belonged.

An artist named Severn who visited this family says he found himself in company with a large boa-constrictor, a python, and several smaller snakes. He felt a good deal alarmed when the master of the house was called out of the room, and he was left with the boa--a great serpent as large round as a small tree--coiled on an arm-chair beside him. Presently two little girls came in with their mother; they at once went to the boa, calling the huge snake pet names, and allowing it to twine itself around them. He says, "The children over and over again took its head in their hands and kissed its mouth, pushing aside its forked tongue in doing so. The animal seemed much pleased, but kept turning its head continually towards me with a curious gaze, until I allowed it to nestle its head for a moment up my sleeve. Nothing could be prettier than to see this splendid serpent coiled all round Mrs. Mann while she moved about the room, and when she stood to pour out our coffee. It was long before I could make up my mind to end the visit, and I returned soon after with a friend to see my snake-taming acquaintance again. The snakes seemed very obedient, and remained in their cupboard when told to do so." [Footnote: Romanes' *Animal Intelligence*, pp. 260, 261.]

Although I tell you this strange story, I do not think I should like to make a pet of any serpent, however tame it might be; because it was this creature, "more subtle than any beast of the field which the Lord God had made"--which that enemy of God and of the souls of men, who is spoken of

in the last book of the Bible as "that old serpent, called the Devil, and Satan, which deceiveth the whole world," used as an instrument, when he came to tempt Eve in the garden of Eden.

The word Eden means "pleasure"; and when we were talking of that delightful place--that garden which God planted, and where He put the man whom He had formed--the little ones were asked to tell all they knew about it.

Leslie's answer was, "It was God's garden"; and Eustace and Dick told of the two trees which were there, "the tree of life also, in the midst of the garden, and the tree of knowledge of good and evil."

It was of this tree that Sharley and Chris spoke, when they answered the question--

"There was something in the Garden of Eden to remind Adam and Eve that they were God's creatures, subject to Him. What was it?"

"It was the tree of knowledge of good and evil," they said; for "the Lord God commanded the man, saying. Of every tree of the garden thou mayest freely eat: but of the tree of the knowledge of good and evil, thou shalt not eat of it: for in the day that thou eatest thereof thou shalt surely die."

Another question which the little boys had to answer was this--

"What was the first sin?"

"When Eve and Adam plucked the fruit." This was the answer given by all.

I want you to think about it. Adam and Eve owed everything to God, for He had created them in His own image; and had blessed them, and given them "dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth," and had put them in the beautiful garden which He had planted. How dreadful that they should disobey the only command God gave them, and thus sin against Him! But had not Eve sinned against God, even before she put out her hand and "took of the fruit thereof, and did eat; and gave also unto her husband with her, and he did eat?"

Chrissie said that when the serpent asked Eve that question about what God had said, she ought not to have taken any notice; and Sharley thought that the first beginning of the sin was listening to the serpent at all, and that the devil now puts it into our hearts to ask, "Is there any harm in doing it?" when he wants to make us listen to him, and forget what God has said. And then we all agreed that the way to answer Satan is in Scripture words.

I think Sharley was right in saying that the first beginning of the sin in the Garden of Eden was when Eve listened to the serpent--lent her ear to one who dared to ask such a question as "Hath God said?" The next step in the road which led away from God, Eve took when she answered that daring question; the next, when she believed the lie of the serpent, instead of

the word of God.

The devil is a liar, and when he spoke to Eve he tried to make her think that God was not so good to His creatures as He might be, for He would not allow them to have the very best thing in the garden--that forbidden fruit. The great enemy of God envied His creatures their happy place where they received everything from Him, and were dependent upon Him for everything; and God allowed the man and woman whom He had made, to be proved; and, when weighed in the balance, they were found WANTING. And so we read in God's book how "by one man sin entered into the world, and death by sin; and so death passed upon all men, for that all have sinned."

As Eve gave her confidence to the serpent, she lost confidence in God, and went on to believe that when \_God\_ had said, "In the day that thou eatest thereof thou shalt surely die," and the \_serpent\_ said, "Ye shall not surely die," it was the serpent that spoke the truth. How dreadful it was for God's creatures to look to the devil for happiness, to give up God who created them, and take Satan for their master!

Instead of happiness they found only shame and misery. The serpent had said that their eyes should be opened, and they should be as gods, knowing good and evil. We read, "And the eyes of them both were opened;" but God in His word tells us of those whose eyes "the God of this world hath blinded." They had no power to choose what was good; and tried to hide away from God.

And so the first man was driven out of God's garden, and there has never been any way back to it at all! No way back to God either, for Adam or for his children, except through Christ, "the Second Man, the Lord from Heaven."

It was of this wonderful way, of Him who is "the Way," that God spoke when He told the serpent that the Seed of the woman should bruise his head.

The Lord Jesus Christ was "the Seed," the One who loved us and gave Himself for us: the One whom "God so loved the world" as to give, "that whosoever believes in Him should not perish, but have everlasting life;" the One who "once suffered for sins, the just for the unjust, that He might bring us to God."

We have been learning something of how dreadful the bites of serpents are, how full of deadly poison: and we have been reading how, by listening to the old serpent, the poison of sin--having our own will, and thinking hard thoughts of God--came into the hearts of God's creatures, bringing sorrow, and shame, and death with it. How beautiful that the righteous One in whom was no sin, and who come to take away our sins, should tell us that "As Moses lifted up the serpent in the wilderness, even so must the Son of Man be lifted up." The serpent of brass was not kept in Moses's tent; it was lifted high, for all to see it. God, who knew His people's sin, and had sent those fiery serpents to bite them, had Himself told Moses to make that serpent of brass, and those who were bitten had only to look at it and live. If they looked at their own hurt, or at each other, or at Moses--all was of no avail; but "it came to pass that if a serpent had bitten any man, when he beheld the serpent of brass, he lived."

God--who knew that every one of us born into this world is born away from Him, and with the dreadful poison of sin, like the serpent's bite, in us--gave His only begotten Son to be lifted up, that "whosoever believeth in Him should not perish, but have everlasting life." And He tells us to look at Him and live, just as the poor sinful people, dying of the serpent's bite, looked at the serpent of brass, and their deadly wound was healed. God has told us to look straight to His Son, dying for sin, dying in our stead; but it is not our looking that saves us, it is the blessed Saviour whose name is called Jesus, "for He shall save His people from their sins."

I must not forget to tell you that many of the extinct animals whose skeletons are to be seen in museums belonged to the class of Reptiles.

We read that "God created great whales"--or sea monsters--and remains have been found of enormous lizard-like creatures. One has been called the Fish-lizard; it seems to have had a crocodile's head, with a body like that of a small whale.

Another had a long swan-like neck, the body and tail of a quadruped, and paddles like a turtle.

Another, called the Winged-lizard, had bat-like wings and dreadful jaws armed with numerous teeth. All these "Saurians" are believed to have frequented the sea or rivers; but another called the Great-lizard, was a land-animal, as was the Forest-lizard, and a monster kind of Toad with very curiously formed teeth. But no description will give you an idea of the size of these creatures, though I may tell you that a party of gentlemen dined inside the body of one great extinct lizard at the Crystal Palace, where models, not very accurately made, of the most remarkable ancient animals are to be seen. I think my first thought when I see the actual remains of these old-world monsters, with their terrible jaws, is that of thankfulness that they have passed away from sea and land. But we know that God who created them "saw that it was good," and in the Book of Job we may read His description of mighty and terrible creatures which show forth His power.

We were speaking of a monster toad whose fossil remains have been found; and I must tell you that before we had done with the "Creeping Things," I was asked a difficult question. "To what class do the frogs and toads and newts belong? Are they Vertebrate animals? Do they belong to the land or the water?"

I said they certainly do belong to the great Backboned family, and are placed in a class by themselves, as they are neither Mammalia, Birds, Fishes, nor Reptiles, properly speaking, and are called Amphibia, because they live, as it were, a double life.

[Illustration: BROWN FROGS.]

They have gills, which enable them to breathe in water, to begin with, and lungs which enable them to breathe in air, later on. They are mostly

without scales, and do not need to drink, because they imbibe moisture from the air through their soft damp skin. When you see a frog hopping across your path, you see a creature which has known many a change in its life, for frogs are among those very interesting animals which undergo what are called metamorphoses. We have met with this word before, and may remember that it is used to express the change from one form to another which is wrought in some living creatures in the course of their growth. I daresay you imagine as I once did, that all young animals are like their parents, only on a smaller scale; for you see that a young horse, or elephant, or whale, a pup or a kitten, is at its birth in all respects just what it will be when full-grown, only smaller. So it is with the reptiles and the birds--the young ones, when hatched, are like the parents. But in the case of frogs and newts, and also most insects, the young ones do not merely increase in size as they grow, but pass from one stage of growth to another, each different from the former, until like the butterfly when it emerges from the chrysalis, they reach what is called their perfect state--and these metamorphoses or changes are very curious and interesting indeed.

When Master Froggie was a young tadpole, some pond or ditch was his home, for he was an aquatic animal; but now that he is full-grown he has passed into another way of living: he breathes, or rather swallows air, and must, as he swims about with his beautifully webbed feet, come to the surface of the water now and then, or he would die. I am sure you know the frog well enough, and you may even have heard the harsh croak from which it has its name, as you have passed some damp meadow or weedy pond, on a summer evening. But I wonder whether you know frogs' eggs when you see them?

My brothers and I did not, long ago, when we used to fish with sticks in a pond by the cross-roads for what we called "bunches of grapes!" The grapes were little balls of jelly with a tiny black spot in each, and we never guessed that they were really eggs, and that the little black spot in the slimy covering would one day actually turn into a live, leaping, croaking frog. If we had had the patience to watch, we should have seen that little black dot grow and grow, until it seemed to have become a creature almost all tail, with the head and body still only a tiny ball. By-and-by we should have seen legs and feet begin to appear, and as the legs grew longer, the tail become shorter, until it quite disappeared. Meanwhile, other changes which we could not see would have taken place; instead of the gills, which made the tadpole a water-breather, Master Froggie would have acquired lungs, like any land animal; the aquatic would have changed into an aerial, the herbivorous into a carnivorous creature, so that we may well say it has lived two lives.

The beautiful little newts' life-history is much the same, only that their transformation is not quite so complete, for they never lose their lizard-like tails, but remain little crocodiles to the end of the chapter.

"\_Be ye therefore merciful, as your Father who is in heaven is merciful.\_"

"Turn, turn thy hasty foot aside,  
Nor crush that helpless worm;  
The frame thy wayward looks deride  
None but our God could form.

"The common Lord of all that move,  
From whom thy being flow'd,  
A portion of His boundless love  
On that poor worm bestow'd.

"The light, the air, the dew He made  
To all His creatures free,  
And spreads o'er earth the grassy blade  
For them as well as thee.

"Let them enjoy their little day,  
Their lowly bliss receive;  
Oh! do not lightly take away  
The life thou can'st not give."

GISBORNE.

THE SIXTH DAY.

THE ANIMAL WORLD.

"\_Every beast of the forest is Mine, and the cattle upon a thousand hills.\_"--PSALM I. 10.

"\_... God ... who teacheth us more than the beasts of the earth, and maketh us wiser than the fowls of heaven.\_"--JOB xxxv. 11.

"\_Who knoweth the spirit of man that goeth upward, and the spirit of the beast that goeth downward to the earth?\_"--ECCLESIASTES iii. 21.

Now that we have come to the last of those wonderful working-days of which God has told us, I want you--just as we all did when we had reached the SIXTH DAY in our readings--to read over again all the verses in the first chapter of Genesis down to verse 26, and to notice carefully the words which God has used in speaking to us about what He created and made. And I want you especially to think of those two words of which we were speaking a little while ago--God created, and God made.

Before God speaks to us of the FIRST DAY, with its evening and its morning, He tells us that "in the beginning" He "created the heaven and the earth."

(Day I.) Then--we do not know how long after--God spoke, and commanded the light to shine out of the darkness; so that where the dark had been

the light now was. "And God saw the light, that it was good," and divided it from the darkness. The light God called Day. Then after the night had passed, the light returned, and there was morning. "And the evening and the morning were the First Day."

(Day II.) Again God spoke, and that great globe of air which surrounds the earth was formed--the blue sky above us, and the clouds, the treasure-house for the rain. "And God called the firmament," or expansion, "Heaven. And the evening and the morning were the Second Day." Upon this day we do not read of anything new being made; and it is not said, "And God saw that it was good," as after the work of the other days.

[Illustration: "THE JOY OF HARVEST."]

(Day III.) Again God spoke, and the dry land appeared; so that upon this Day there were already in existence earth and sea, air and water, day and night. And God Himself saw that all was good in the world which He had made. Then He adorned the earth with verdure and beauty, and brought out of it grass, corn, fruit-trees; each "after its kind," "And God saw that it was good. And the evening and the morning were the Third Day."

(Day IV.) Again God spoke, and the two great lights, sun and moon, were set to give light--day and night--upon the earth, and to order the seasons. "And God saw that it was good. And the evening and the morning were the Fourth Day."

(Day V.) Again God spoke; living creatures swarmed in the waters, and "winged fowl" flew "in the open firmament of heaven." It is now, in connection with air and sea being filled with living beings, to which God gave not only the same power to grow and multiply with which He had endowed the trees and the herbage, but in addition to it, power to move from one place to another at will, power to enjoy, and to go in quest of that which seems to them desirable, that we have again the word, "God created," and also a new word, never before used about day or night, earth or sea, sun or moon, tree or flower--"God blessed."

You remember how we noticed, when we were reading about the work of God on the Fifth Day, that as soon as He had made, not stones or plants, but fishes and birds, He blessed them. God made these living creatures happy, each in the place suited to the kind of life He had given it. And again of this Day's work we read, "And God saw that it was good.... And the evening and the morning were the Fifth Day."

Now let us read verses 24 and 25 very carefully. These verses tell us of part of God's work on the Sixth Day; and we notice that this Day begins, like the former ones, with those three words which we have read so many times in this chapter--"And God said."

(Day VI.) I wish you to stop at the end of verse 25 because there the account which God has given us of His creation of the world ends. All was now complete; and all was very good in the eyes of Him who had made and fashioned it. The rest of the chapter speaks of a distinct part of God's Creation, when man, who was to be over it all, was made; a part of the



Creation, but head and Crown of all; a being distinct from any other inhabitant of earth, air, or sea, because created \_in the image of God\_.

The old writer who speaks so quaintly about the "great pond of the world," and the "guests" which it contains, exclaims with wonder when he thinks of the "tenant" which God, when He had made the great house of the world and furnished it, brought in to possess it. He says:--

"But, oh God, what a little lord hast Thou made over this great world!... yet none but he can see what Thou hast done; none but he can admire and adore Thee in what he seeth.... Other creatures Thou madest by a simple command, man not without a divine consultation; others at once, man Thou didst first form, then inspire; others in several shapes, like to none but themselves, man after Thine own image ... others with qualities fit for service; man for dominion; other creatures grovel to their earth, and have all their senses upon it, this is reared up towards heaven."

We talked a good deal about this; for I wished that Eustace and Leslie, and even little Dick, should understand something of the great difference which God has put between those creatures--the cleverest and best of them--who live their little life in the sea or on the earth, and then pass away altogether, and even a little child who does not know its right hand from its left, and cannot take care of itself perhaps nearly so well as a bird or a beast, but who has within it what God has given to no bird or beast, a spirit which can never die, a spirit which must some time "return unto God who gave it," because it belongs to Him.

No beast will have to give an account of itself to God; for to these creatures of a day, He has given their bodies, so wonderful and beautiful, and the breath by which they live; but not that deathless part, the spirit, because of which every man is responsible to God, and knows that he is, even though he may never have read in God's Word that "every one of us shall give account of himself to God."

Let me tell you how a missionary explained this, not long ago, to a king far away in the heart of Africa.

He had been talking to him about the stars and the sun; and the king presently asked where God, who had made the sun, dwelt, and what He did with people after they were dead.

The missionary says, "I answered that God was not confined to one place as we are; that when man's body died, the spirit of him who was a child of God went above, and dwelt for ever in the presence of God, and those whom God knew not here in this life were cast out into a place of sorrow and burning."

"But why does God do so?" the king asked. "What reason has He for putting man from Him?"

The missionary explained that God is righteous, and must punish those who are guilty in His sight.

"But," said the king, "\_we\_ did not know the laws of God \_here\_. How can He punish \_us\_ for not keeping them?"

[Illustration: KAFFIRS OF VARIOUS TRIBES.]

The missionary answered that God had put His law in their hearts, so that they all knew what was right and what was wrong.

"You know," he said, "when a man lies to your face and steals from you, that he injures you; and call him bad and wicked. So when you tomorrow do the same thing, God judges you with the same judgement with which you judged your fellow-creature yesterday."

"Yes," replied the king, "that is true; that I understand."

We shall think more by-and-by about the great difference which God has put between man, whom He created in His own image, and every other creature, but I want you never to forget it.

In reading of the beautiful life which God gave to the fishes and the birds, and to those beasts that He commanded the earth to bring forth, about which we are going to speak a little today, we must always remember, while we admire the wonderful gifts and powers which they have from God, that He has put the widest possible distance between us and them.

We shall see that many of these animals are much stronger than the strongest man; that to some of them God has given senses keener than ours; and to others, in an especial degree, that great gift called instinct, by which the little swallow finds its way over sea and land, the ants "prepare their meat in the summer," the beaver makes dams across the stream, and the little prairie dogs build pleasant towns, where they can all live together, one of them always keeping watch lest any enemy should surprise the workers.

All these are beautiful proofs of the kindness and faithfulness of God towards the creatures He has made; and we may admire them, and learn all we can from them; but never imagine for one moment, that man is only a grander and more wonderfully made sort of animal, as a lion is superior to a mole, and a mole to a worm.

Just as God has told us there would be, there are now some people who think they know better than to believe what His Word says about this, and who try to think that there never was such a "wonderful animal" as man has grown to be, and are not ashamed to talk of his "ape-like ancestors." But among all the fossil-animals which the earth has kept so safely, I need hardly tell you that not one specimen of an animal between a monkey and a man has ever been found. As has been well said, those who speak in this way "have to convert a four-handed ape into an erect man, a screaming baboon into an articulating, speaking being; brutal instinct into reason, will, conscience; a thing that perishes into that which believes in God, and whose soul is immortal."

Mr. Frank Buckland, whose interesting books I hope you may one day read,

had a great many strange pets; among them a remarkably clever monkey. He studied the habits of this monkey very carefully and describes some of the things which it did by instinct--a sense which no one can understand, given by God to guide those living creatures upon whom He has not bestowed reason--and he also tells most amusing stories of the way in which it imitated what it saw him do; but he found that this monkey never reasoned about things, as even a very young child will.

It could use its own powerful head and hands to defend itself, if attacked; but he never saw it make a weapon to use against its enemies. It was very glad to get near the good fire which its master had made, and would spread out its hands and warm them in the blaze; but it never made a fire for itself. And though Mr. Buckland laid plenty of wood close to the fire, and watched to see what a creature so fond of heat would do, he found that the monkey sat by the fire and allowed it to go out; for although he shivered with cold, he did not understand that by putting fresh wood on, the heat which he had so enjoyed would be kept up.

So it is with animals generally; they do things by instinct or by imitation rather than through reason; though we often see them look as if "putting this and that together." And we know no animal able to tell its thoughts by speaking, though some birds have been trained to repeat words.

In that charming book, written for French children "The First Year of Scientific Knowledge," \_man\_ is placed first among animals, as the most wonderful of them all, but the author is careful to explain that he is there treating only of man's body; as, were it otherwise, it would be needful to allow him a particular division all for himself. We see that in God's Book man is put last, and that he is not counted with the other living creatures at all.

You may say that men are born, and eat, and sleep, and breathe, and grow old, and have bones, and a heart, and blood running through their veins; and so it is with beasts, and birds, and fishes. But God speaks to us of the spirit of a beast--its natural life--which goes downward, in contrast with the spirit of man, which goes upward, and returns "unto God who gave it." It is because of this immortal part, that the life of a man is not to be compared with, or put beside, that of a beast that perishes.

Put your hand upon your heart for a moment. You can feel something there, going "beat, beat," and you know that as long as that "beat, beat" goes on you are alive. If it were to stop you would die, for no man has power to set it going again. Now, you can also feel the beating of the heart of a dog, or of a little frightened bird as you hold it in your hand; and you know that when its heart ceases to move, its little hour of pleasure or pain is over, for there is nothing in the dead body of a bird, as there is even in a dry seed, that will make it spring up and grow again--\_all\_ its life has gone.

Even as I am writing this for you, a sparrow, picking up crumbs of bread, comes hopping close to my feet. The crumbs feed his little life, and you know that he would soon die, starved to death like many a poor birdie in its cage, if he could get no food. You, too, would die if you had nothing

to eat; that is, your body would, but not what has most right to be called \_you\_; that never-dying spirit which has lived in your body as its house--\_it\_ would still be alive--alive to God: "for all live unto Him." So different are you from the beasts that perish that we will turn to the Book from which alone we can know the truth, and there let us notice, first, that when man was to be made, it is no longer, "And God said, Let there be: and there was;" but instead, the wondrous words are written, "And God said, Let us make man in our image, after our likeness.... So God created man in His own image"; and again we read, "The Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul."

We are now going to study some of the wonderful works of God in the animal-world, and I hope to be able to tell you some interesting stories of what creatures who have not language, and cannot reason in the way in which we can, have been able to do by instinct and intelligence.

It is very pleasant to read the accounts given by other people of what they have observed, but even better still to learn to use our own eyes. Try this plan, and you will be surprised at the many curious and beautiful things about the ways of animals which you can find out for yourself.

You remember, when we were talking about fishes and birds, we found that they both belong to the great group of animals called Vertebrate, from having a backbone made of many pieces beautifully fitted together.

We are now going to speak of the last class in that great group--the Mammalia, so called because they feed their young, not as birds do, with insects or grain, but with milk. They are chiefly "four-footed beasts of the earth," and are covered with hair or fur. In this class extremes meet; we find the great elephant and the playful little squirrel, the kingly lion and the timid mouse which is said to have set him free when snared in the hunter's net.

To this class also belong the land-monsters of bygone days, whose skeletons you may see in museums: such as the Mammoth, or hairy elephant, found in the British Isles, and also over half the globe; the Mastodon, another elephantine extinct monster, whose remains are found in America; the Woolly Rhinoceros, with two large horns on his face, dug out of the frozen soil of Siberia; the Great Irish Deer, whose antlers measured 9 feet from tip to tip; and Giant Sloths of South America, inhabiting the same region as the Sloths of to-day.

But we must leave the "unnumbered, unremembered tribes" of buried creatures which once trod this earth; and speaking only of those now alive, I must tell you that in the first Division of the great class, Mammalia, naturalists place the Quadrumana, or four-handed creatures. This name is given to all monkeys; because their great-toes are like thumbs, so that they can take hold of the branches in the forests where they spend their lives, quite as well with their feet as with their hands.

I need not tell you what they are like, for you know something of the noisy, chattering, mischievous creatures, from watching them at the "Zoo."

But you have never seen the enormous apes which live in Africa and the forests of Borneo. Of these the Orang-outang--its name means "man of the woods"--is the largest. He is as tall as a man, and very strong, with long arms, which almost reach the ground as he stands. From the pictures I have seen, I certainly should not like to meet this "man of the woods" at home, seated in the sort of nest which he makes for himself in the trees. But these great, fierce-looking creatures can be tamed; and I have read of one who might be seen walking in the garden, arm-in-arm with his keeper; and of another who would sit at table and imitate everything which he saw people do. He would pour out his tea, put sugar and milk in it, and then hold his cup and saucer, and drink the tea, all very cleverly; for no animals are so good at imitating others as monkeys are. Remember this, if you are fond of copying what other people do and say, be sure that you copy only what is worthy of imitation.

[Illustration: TOO CLEVER.]

Here is an amusing traveller's tale about some monkeys which carried their love of imitating very far; as you will say when you have read

"THE SAILOR AND THE MONKEYS.

"Once, in the hope of honest gain  
From Afric's golden store,  
A smart young sailor crossed the main,  
And landed on the shore.

"And leaving soon the sultry strand  
Where his fair vessel lay,  
He travelled o'er the neighbouring land  
To trade in peaceful way.

"Full many a toy had he to sell,  
And caps of scarlet dye;  
And such things as he knew full well  
Would please the native's eye.

"But as he travelled through the woods  
He longed to have a nap,  
And opening there his pack of goods,  
Took out a scarlet cap,

"And drew it on his head, thereby  
To shield him from the sun;  
Then soundly slept, nor thought an eye  
Had seen what he had done.

"But many a monkey dwelling there,  
Though hidden from his eyes,  
Having well watched the whole affair,  
Now longed to win a prize.

"And while he slept each one did seize

A cap to deck his brows;  
Then climbing up the highest trees,  
Sat chattering on the boughs.

"The sailor waked, his caps were gone,  
And loud and long he grieves,  
Till, looking up with heart forlorn,  
He spied at once the thieves.

"With cap of red upon each head  
Full fifty faces grim,  
The sailor sees amid the trees,  
With all eyes fixed on him.

"He brandished quick a mighty stick,  
But could not reach their bower,  
Nor could he stone, for every one  
Was far beyond his power.

"Alas!' he thought, 'I've safely brought  
My caps far o'er the seas;  
But could not guess it was to dress  
Such little rogues as these.'

"Then quickly down he threw his own,  
And loud in anger cried,  
'Take this one too, you thievish crew,  
Since you have all beside.'

"But quick as thought the caps were thrown  
From every monkey's crown,  
For, like himself, each little elf  
Threw his directly down.

"He then with ease did gather these,  
And in his pack did bind;  
Then through the woods conveyed his goods,  
And sold them to his mind."

I daresay you could tell me the story of the monkeys who washed their hands and faces in pitch, and so were caught. But from all the stories which are told about monkeys, I fancy that we think of them too much as clever, and noisy, and mischievous, and sometimes very ill-tempered and revengeful; so I want to tell you something of their good and gentle ways, and especially of their love for their little ones.

I used to watch a mother, in the monkey-house at the Gardens, nursing her baby--a tiny grey thing, with its hair parted down the middle, and the funniest, most knowing little face of its own. She nursed it in the tenderest way, with such a loving expression on her face the while.

Then I have read of an American monkey driving away the flies which teased her little one; and of another good mother who was seen washing the faces

of her family in a stream. And they are kind not only to their own; for if a poor little monkey is left an orphan, it is sure to be taken care of by some other monkey's father or mother.

A gentleman who was coming home from India tells this story: There were on board two monkeys, one older than the other, but not its mother. One day the little one fell overboard. The other at once jumped over the side of the vessel to a part of the ship where she could stand, and holding on by one hand, with the other she held out to the poor little drowning monkey the end of the cord by which she was tied up, but which was then dangling from her waist. It was a wonderful plan for her to think of, was it not? But the cord was too short, and the little monkey was saved by a sailor who threw it a rope, which came near enough for it to catch at and cling to.

I remember being told by a brother of mine who had once shot a young monkey, that he could not forget the reproachful look which the poor mother gave him, and he never again would shoot one. He said the little wounded monkey cried like a child.

If you have ever seen a bat, you will think it strange to class these winged creatures with monkeys, and it does at first sight seem a mistake that they should be among the Mammalia at all; one would expect to see all winged things in the Bird family. But the bat is rightly placed in this division, and you will understand why it has been classed with the Quadrumana, when you have carefully examined those soft, fan-like wings which you can spread out with your fingers. If you could take a bat in your hand, and look at it from head to foot, you would notice three things very unlike a bird about it. In the first place, it has no feathers, but is covered with very soft grey fur; it has no beak, but sharp teeth--so sharp that I advise you to keep your fingers out of their way; then, look at its long ears! It certainly cannot be a bird.

Besides being reckoned among the four-handed creatures, a Greek name has been given to bats, from the curious way in which their fore paws, or hands, have been lengthened out into wings; it means "hand-winged."

Now, keeping this name in mind, gently unfold the wing: the small bones which you feel, over which the soft grey web is stretched, are really the fingers of the animal, very long fingers they are, and the web is the skin of the back and breast which has been drawn over them, so as to make this strange hand-wing. If you cannot examine a live bat, perhaps by studying this picture of one, you may understand better how this soft, dusky wing is made.

[Illustration: "FLITTER-MOUSE" ON THE WING.]

The bat is what is called a nocturnal animal, because it cannot bear the strong light of day, and flies about at night in search of its food. We sometimes hear it said that a person is "as blind as a bat," but that is because when bats are taken, contrary to their nature, into the sunlight, they are so dazzled by it, that they fly blunderingly hither and thither, in their efforts to get away from it. They have very sharp eyes, but they do not use them by day, but sleep all day long, hitched to a stone in a

wall, or to a branch in the woods by their hind legs--always choosing a dark place, and folding their wings around them like a curtain.

I remember being very much afraid of bats when I was a child. An old castle by the sea swarmed with them, and when my brothers took lighted pieces of wood and went into the dark, deserted ruin to rouse the sleeping bats and see whether they could not catch one, the way in which the poor dazed creatures flew at our faces in their blind efforts to escape frightened me very much, and when one was caught and put into my hand I disliked the "creepy" feel of the soft wings too much to keep it long. I knew nothing about bats then, and was silly enough to think that they were "horrid" and "frightful" creatures--words which we should not use in speaking of anything that God has made. Now that I have learnt a little about them, I fancy I should not mind going into that old castle, and having another look at them; but still I do not think I should care to have one for a pet.

Perhaps you think no one would; but I have read of a tame bat which knew its master, and loved to be stroked and petted as much as a dog would. Indeed it behaved very much like a dog, for it would climb up its master's coat and rub its head against him--more like a cat, you will say, in this--and lick his hands. When its master sat down, the bat used to hitch itself up to the back of his chair, and it would take flies and insects from his hand. But I have no doubt he was always a dull pet in the daytime; for it really is his time for sleep, and we cannot change the nature of animals, and ought not to try to do so.

Talking about sleeping, I must not forget to tell you that a bat is like a dormouse in one respect: it does not fly away to a warm, country when the cold is coming, and the insects are getting scarce, but goes off to sleep in a barn, or belfry, or cave, and sleeps on all through the winter, needing neither food nor drink. There are many different kinds of bats about which you can read in Natural History books; one kind eats fruit, not insects. The bat is about the size of a mouse, and feeds its young, as the mouse does, with milk. When we were speaking of the animals mentioned in the Bible no one thought of the bat; but it is referred to among the birds or winged things, which might not be eaten by the Israelites; also in Isaiah ii. we read that in that day when the Lord alone shall be exalted, "a man shall cast his idols of silver and his idols of gold ... to the moles and to the bats"--for they especially haunt waste and desolate places.

Now we must leave the Four-handed family, and come to the largest class among the Mammalia--the Quadrupeds. As all four-footed animals, no matter how unlike each other they may be in other respects, belong to this family, you may imagine what a very large one it must be. Naturalists have divided the Quadrupeds into different classes, and at the head of them they place the Carnivora, or flesh-eaters, so called because they are beasts of prey, catching birds and smaller animals alive, and eating them.

The animals of the Cat kind--lions, tigers, panthers, jaguars--are the most beautiful as well as the most dangerous of this class. They have long and sharp teeth, and very long claws--five on the forefeet and four on the hinder-feet--and these claws are kept sharp by being guarded within a soft



sheath when not wanted; so that all these cat-like creatures tread very softly.

You have often noticed how pussy can stretch out her claws when she wishes to climb or to scratch, but you know they are most often hidden within this velvet sheath. If you have ever watched your cat creeping cautiously nearer and nearer to her prey, and then suddenly springing upon the poor little mouse or bird, you will know exactly how such great and terrible cats as lions and tigers spring upon their prey, whether it be a cow or a sheep, a man or a child.

Of all of them, none is so fierce as the

"Tiger, tiger, burning bright  
In the forests of the night,"

which is found now in only one quarter of the world--in Asia, especially India--and is so bold that he will fight with a lion.

[Illustration: TIGER AND CROCODILE--"THE TUG-OF-WAR."]

No beast has such a beautiful skin; but you may not know that this wonderful coat is made for use as well as for beauty. A writer who has observed very carefully says, "However lovely nature frames or fashions a plant or a bird or an animal, it is never for ornament, but for some actual purpose or use." It is a good thing to bear this in mind, and to try to find out the uses of the beautiful things which you see. The stripes of the tiger are so very like the long grass--taller than a tall man--of the jungle, is its home, that the hunters, mounted on their trained elephants, cannot see him, unless he betrays his hiding-place by some movement. Tiger-hunting is a very dangerous sport, and many tigers are killed, not in the chase, but by being taken in pitfalls by the natives.

I am sure you know a great deal about the king of beasts, and I need not describe him, since you have probably both seen him and heard his terrible voice. Still, we can have little idea, from seeing lions in this country--very likely born in captivity--how majestic the king is in his forest home in Africa. Those who have heard his roar echoing through the forest, say that it rolls along like distant thunder, and that when he is angry his eyes flash with a gleam almost like lightning. His strength is so enormous that one blow of that soft paw, which looks so harmless, will break the back of a horse, or knock down the strongest man; and he will carry off a young cow as a cat carries off a mouse. Young lions are very pretty, and as playful as kittens. I have seen a happy family all in one cage--a great African lion called Hannibal, with a very royal look; a lioness and her four cubs, playing with a retriever pup! The cribs looked very much like big puppies, and had such innocent, gentle little faces, that you would have liked to pat and pet them.

You will not be surprised to hear that the lion was the one chosen by all the little boys, when they answered their question about animals mentioned in the Bible. They all found the story telling how David, when he was a shepherd boy, killed both a lion and a bear, when they had taken a lamb

from the flock, and rescued the helpless little creature out of the very mouth of the lion--and how he said to King Saul, "The Lord hath delivered me out of the paw of the lion" [that strong paw which can knock a man down], "and out of the paw of the bear, He will deliver me out of the hand of this Philistine;" and, strong in the Lord and in the power of His might, he went to meet the boastful giant of whom everyone was afraid.

[Illustration: "THE LONELY LION LEAVES HIS LONELY LAIR."]

I also had references given me to Daniel in the den of lions and to the sad story of the prophet who disobeyed the word of the Lord, and was slain by a lion. Will you see whether you can find the name of one against whom a young lion roared? "And the Spirit of the Lord came mightily upon him, and he rent him as he would have rent a kid, and he had nothing in his hand." And also the name of one of King David's mighty men, who "went down ... and slew a lion in the midst of a pit, in time of snow?" There are no lions now in Palestine, but they were at one time often seen there; they made their lair in caves among the mountains, and on the reedy banks of the Jordan.

[Illustration: THE LEOPARD.]

Other wild beasts--which are really great cats--are the beautifully spotted Panthers or Leopards of Africa and Asia, the fierce and cunning Jaguar of South America, and the Puma, sometimes called, without much reason for the name, the American lion.

Wild cats were once common in England, and it has been thought that our home-cats are their descendants, only tamed; but I believe this is not true, and that our cats came from the East. It is generally thought that they are not very affectionate animals, or rather that their affections are set upon places more than upon people; but they are certainly very fond of their own kittens, and very proud of them when they first begin to "walk high," which I suppose answers to a baby's beginning to "run away."

Mr. Wood, in *The Boy's Own Book of Natural History*, tells a pretty story about a baker's cat, which was so fond of him, when he was a young man at college, that she used to come regularly morning and evening to have her breakfast and tea with him. He says, "She continued her attentions for some time, but one morning she was absent from her accustomed corner, nor did she return till nearly a week had passed, when she came again, but always seemed uneasy unless the door were open. A few days afterwards, she came up as usual, and jumped on to my knee, at the same time putting a little kitten into my hand. She refused to take it back again, so I restored it to its brothers and sisters myself. A few hours afterwards, on going into my bedroom, I found another black kitten fast asleep on the bed." Fancy this mother being so anxious to show her kittens, and so sure that her friend would be pleased to find one in his bed!

Next to the Cat family comes that of the Dog, and in this family Wolves, Jackals, and Foxes are placed, as well as Dogs. I had some texts about wolves given me by the boys, but I do not think we shall have time to speak of them now. Wolves and jackals and foxes are very much like dogs run wild, while dogs in many respects are like these wild animals become tame; so

much so, that it is believed that the "friend of man" has altered a good deal in the thousands of years during which he has been his constant companion; he has become less fierce, but has also lost some of the independence which once belonged to him, and is very much behind foxes and jackals in knowing how to take care of himself and get his own living.

We ought to treat with great respect and kindness a creature which we have in this way made dependent upon us, and one which gives us its affection so freely, and is so glad even of a kind word or look from its master or mistress.

Dogs have a good deal of dignity, and their feelings are very easily hurt. Perhaps you think it is saying too much for a doggie to talk of its having feelings that can be hurt, but I assure you dogs have feelings, and very keen ones too.

The master of a little Skye terrier found that a reproachful word, or a look of displeasure, would make him miserable for a whole day; he never thought of such a thing as beating him; but once, when he was away from home, his brother, who did not know the dog, kindly took him out every day for a walk in the park. One day, when he wanted him to come on, he gave him a blow with his glove. The dog, who had been playing about with a friend he had met, stopped and looked up at him in surprise, as if he would have said, "If you knew whose dog I am you would never treat me so,"--then turned and ran away home. Next day he was again taken out by his master's brother, but when they had gone a little way he stopped, looked in his face as much as to say, "You remember what you did?" and then trotted home; he could never again be induced to go out with the person who had so offended his dignity. This sensitive little Skye could not bear to see anyone hurt, and when driving with his master would pull his sleeve, and try to check him every time he touched the horse with his whip.

A little white, curly dog, whom the children knew well, had a great objection to his Saturday bath, and would get out of the way when he saw it was coming. Tippoo submitted to be washed when he found there was no escape; but a little dog belonging to a lady used to make such a fuss over his weekly bath that at last none of the servants would run the risk of being bitten and snapped at by him. His mistress tried threatening him, then beating, then keeping him without his dinner; but all was of no use until she made up her mind to see what taking no notice of him would do. The doggie found it very hard when his dear mistress came home, and he ran out with his joyful bark to welcome her, to see her turn her head away from him just when he was longing for a pat or a kind word; and I fancy the lady found it hard too, constantly to disappoint all his little efforts to attract her attention; but she went on for more than a week, showing her pet in this way that something was wrong, and there is no doubt at all that the wise little creature knew what it was. He looked very miserable all the time, and at last crept quietly to her side, and, as she says in telling the story, "gave a look which said as plainly as any spoken words could have done, 'I can stand it no longer; I submit.'" Then, after patiently bearing the washing, without snapping or fighting, he came in wagging his tail with a joyful bark, as much as to say, "It's all right now!"

I am sure you have read or heard accounts of the large Newfoundland dogs; of whose courage in saving children who fall into the water, many beautiful stories are told; and also of the dear, faithful Collies with their pointed noses, who know all their master's sheep, and will drive them wherever they are told to go; and even, when two flocks have got mixed, will separate them with the most wonderful patience and cleverness. A Scotch shepherd, who loved poetry, and made some verses about the skylark, which Sharley and May repeat, tells a story of one of these dogs which I am sure you will think worth remembering.

The collie's name was Sirrah, and his master prized him greatly. When the shepherd first bought him he was scarcely a year old, "and," he says, "knew so little of herding that he had never turned a sheep in his life; but as soon as he discovered that it was his duty to do so, and that it obliged me, I can never forget with what anxiety and eagerness he learned his different evolutions. He would try every way deliberately, till he found out what I wanted him to do, and when I once made him understand a direction he never forgot or mistook it again."

Sirrah's master once had charge of a flock of seven hundred lambs, and one night the whole flock broke up into three divisions, and ran away in the dark, so that the shepherd could not tell where they had gone. The night was so dark that he could not even see Sirrah, much less tell him how to find the lost lambs; but the dog knew exactly what had happened, and had no doubt at all about whose duty it was to get the flock together again. All night long the shepherd sought in vain, not being able even to discover what direction either of the three flocks of truant lambs had taken; but in the morning he suddenly came upon his dog, guarding the whole flock--all the seven hundred brought back, and not one of them lost.

I have been told that while a trained sheep-dog is so valuable to his master, and can be so trusted by him, one that has been allowed to grow up without any teaching or training is of little worth. The training must begin while the collie is young, and an old hand at it says, "The first thing to learn your pup is to mind at the word." From this beginning the dog goes on until he seems almost to read his master's thoughts in his face, and to watch each movement of his hand and each glance of his eye. Of one of these dogs his master says:

"I have known him lie night and day among from ten to twenty pails full of milk, and never once break the cream of one of them with the tip of his tongue; nor would he suffer cat, rat, nor any other creature to touch it."

Sheep-dogs become very much attached to each other, as this story shows. Two Scotch collies were fast friends, going everywhere together until one of them died, and was buried on the top of a hill. The other watched the spot, and when no one was by, actually scratched at the new-made grave, and dug up the body of his comrade. Afterwards, when it had been buried again, and heavy stones laid round the place, he still kept watch there, howling piteously and eating nothing, until he died upon the grave of the friend he had loved so well.

But while there are so many beautiful stories of the loving and faithful

and tender and true ways of dogs, we must not forget that they sometimes show cruel and revengeful tempers, as well as something of that low kind of cleverness which tries to deceive, and on account of which the fox has such a bad name.

Only the other day I was told about a dog who actually killed a pretty little kitten from pure jealousy, because he could not bear to see his mistress pet and fondle it. \_He\_ had been the pet for a long time, and when this new favourite came, he showed his dislike in many ways. One day Flossie--the little kitten--was missing, and could nowhere be found. At last, something about the dog's guilty look made his mistress sure that he knew better than anyone else what had become of her. So she looked at him very severely, and said, "Turk, \_you\_ know where little Flossie is. Show me directly."

Turk walked straight to the waste-paper basket, which was under the table, and began to take the paper out, bit by bit. At the bottom of the basket lay the poor little furry pet, killed by the dog in a fit of jealousy! How sad it is to think what sin has done, how even in the animals it may be seen that they belong to a world where the man, whom God made head over them, turned away from Him, and distrusted and disobeyed Him.

But since I have told you of Turk's cruel jealousy, I must not forget a very pretty story of a dog who saved the life of a kitten which was to have been drowned. When he saw the poor little thing thrown into the pond, he swam after it and brought it back, laying it at the feet of the groom who had thrown it into the water. The man took the helpless creature up and threw it back again, and again the dog rescued it. A third time it was thrown into the water, and a third time saved from drowning; but now the dog brought it to the opposite side of the pool, carried it home in his mouth, and laid it beside the fire to dry. In this case which would you rather be like--the man or the dog?

The children often say that our Tippoo, the little white dog of which I told you, does things "just like a person"; he will contentedly eat what he does not care for, because he expects to get something he likes, as a reward. If he has been naughty, you can generally know it by his face, and he will hide away under the sofa, until brought out from his refuge, and made to show what he has been doing. He cannot bear to be laughed at; nothing hurts his feelings so sorely, unless indeed it be seeing a little child petted: this is almost more than he can bear. But he behaves better than Psyche, another little Maltese terrier of my acquaintance, who used to fly at anyone who dared to kiss her mistress. Poor little Psyche's was a sad end, for she was killed by a carriage while crossing the street to get to her mistress.

Dogs have all sorts of ways of making their wants known, but I think you will admit that a little dog called Button was particularly clever in his way of doing it, when you hear how he managed. He used to have goat's milk for breakfast, and one morning, when he thought breakfast-time had passed without any being brought to him, he made up his mind that he had been forgotten; so he went to the closet where the china was kept, fetched the cup in which his milk was always given him, carried it in his teeth, and

laid it down at the feet of the maid who used to milk the goat for him. I think he had earned his breakfast, don't you?

[Illustration: OUR GOAT--"NAN."]

Another dog, who has a drinking-trough of his own, draws attention to it, if it is allowed to go dry by scratching at it, till someone fills it with fresh water.

May knows a very pretty story in verse about a little dog called Music, who did all she could to save a greyhound, Dart, from drowning, when he had gone down beneath the ice while trying to cross a frozen river. It must have been a touching thing to see her standing on the broken edge, and stretching out her paw, like a hand, to save him, while she as the poem says,

"... makes efforts and complainings, nor gives o'er  
Until her fellow sank, and reappeared no more."

Faithful, loving little Music failed to save her friend; but a Scotch dog was the means of saving the life of his master, as he was crossing a river on the ice. When the crash came, and he sank, he had the presence of mind to support himself by means of his gun, which lay across the broken ice. The dog, after making attempts to save his master, seemed to understand that the only thing he could do for him was to leave him, and go in search of help. So off he ran to the next village, and pulled at the coat of the first man he saw, so earnestly, that he got the man to follow him, and was in time to save the life of the drowning man.

But more remarkable still is the story of a strange dog who seems to have been sent by God to protect a poor miner's house in his absence.

In a very lonely place in Cornwall, the house of a miner is situated among the rocks. Only he and his wife lived there, and the poor woman was often left alone far into the night, as her husband's work kept him very late.

One evening a large dog came up the hill to this cottage, and began to make himself at home there, and to make friends with the miner's wife. At first she petted him, but when it began to grow dark, she thought he ought to be going to his own home, and used every effort to send him away. But the dog would not be turned out, and at last the lonely woman allowed him to stay with her. Late at night, a noise of footsteps was heard, and she ran to open the door, as she thought, to her husband. But the dog sprang past her into the darkness, and she heard the sound of a great struggle, and then the footsteps again passing down the path. The dog presently came back to her, but after a time she began to be alarmed lest he should have attacked and frightened--perhaps injured--her husband, as he was returning home. Lighting a lantern, she unbarred the door, and went out into the dark night, still attended by the strange dog, who seemed resolved not to leave her. They soon met the miner on his way home, and the dog, far from springing upon him, went up to him, and then--without a word, I was going to say--disappeared into the darkness. The miner's wife could never find out anything about him, but she felt quite sure that it was God who had

sent this strange protector to take care of her in her loneliness.

Now this must be nearly our last Dog-story, or we shall never have done, for there is no end to the wonderful tales which are told of the sense and kindness and courage and faithfulness of these creatures who are so rightly called the friends of man.

You remember that wolves, foxes, and jackals are placed in the Dog-family; and if you notice the wolves at the Zoological Gardens, you will see in how many respects they resemble dogs. It is when they go about in great numbers, as they do in the east of Europe and Asia, that these animals are such dreaded foes, and devour so many defenceless sheep and cattle.

Do you not think this a wonderful account of a traveller and a wolf taking shelter together in a storm and lying down side by side? It is called

"FATHER'S STORY.

"Little one, come to my knee!  
Hark! how the rain is pouring  
Over the roof, in the pitch-black night  
And the wind in the woods is roaring.

"Hush, my darling, and listen;  
Then pay for the story with kisses;  
Father was lost in a pitch-black night,  
In just such a storm as this is!

"High up on the lonely mountains,  
Where the wild men watched and waited;  
Wolves in the forest and bears in the bush,  
And I on my path belated.

"The rain and the night came together  
Came down, and the wind came after,  
Bending the props of the pine-tree roof,  
And snapping many a rafter.

"I crept along in the darkness,  
Stunned and bruised and blinded,  
Crept to a fir with thick set boughs,  
And a sheltering rock behind it.

"There, from the blowing and raining,  
Crouching, I sought to hide me;  
Something rustled, two green eyes shone,  
And a wolf lay down beside me.

"Little one, be not frightened;  
I and the wolf together,  
Side by side, through the long, long night,  
Hid from the awful weather.

"His wet fur pressed against me;  
Each of us warmed the other;  
Each of us felt in the stormy dark,  
That man and beast was brother.

"And when the falling forest  
No longer crashed in warning,  
Each of us went from our hiding place  
Forth in the wild, wet morning.

"Now, darling, kiss me in payment,  
And hark! how the wind is roaring;  
Surely home is a better place,  
When the stormy rain is pouring!"

The Fox, as you know, is found in most parts of England, and in many other countries. He is a sly, clever hunter, living by day in the hole which he hollows out for himself, and prowling about at night, stealing from hen-roosts, or pouncing upon some unwary hare or rabbit. The Jackal, which is perhaps more like a wolf than a fox, and lives in Africa and parts of Asia, is also a great devourer of game and poultry.

[Illustration: A FOX TAKING TO THE WATER.]

The Arctic-fox, which is found in the far north, is grey during the summer, but turns white as snow in winter, and its coat then becomes so thick as to cover even the soles of its feet. It is interesting to notice that those creatures whose home is in the far north are clad in grey or white, for animals which are hunted either as prey or for the sake of their fur, often take the colour of the ground, whether it be covered with snow, as in the Arctic regions, or brake and heather, as upon the moors and furzy coverts where our own hares and foxes hide.

Now we come to the bears, which are found all the world over except in Africa. The Brown bear, which is a peaceable creature, feeding on honey or fruits, is still met with in the Alps and Pyrenees, as well as in the north of Europe, but it has not lived in England since before the Conquest, at a time when wolves were quite common with us; especially in Wales.

The Grizzly bear is a very different animal; its home is in North America, and it will hunt down a man with such determination that it is very much dreaded by the fur-hunters. The white or Polar bear belongs entirely to the Arctic regions, so that I have often wondered that the great creature which looks so innocent as it dives for the bread which is thrown to it by visitors at the Gardens, or plays with its ball in the water, does not die during our hot summer months. I have heard that the reason why the soles of its feet are so hairy is because in its northern home it is constantly travelling over icefields, sometimes climbing the lofty bergs--and the long hair prevents it from slipping. If so, this is but one more instance showing how perfectly the animals are fitted for the life which they live in their natural state.

And now we must pass from this group to another great Division of the



Mammalia--the Herbivorous animals, which live, not on the flesh of birds or beasts, which they hunt for themselves, but upon grass and green things.

In the first class the Gnawing creatures are placed; you can always know them by their teeth. Perhaps you remember how different the front teeth of a rabbit are from those long, sharp ones which pussy shows now and then when she yawns. By constantly gnawing their food, the teeth of squirrels, hares, rats, mice, dormice, and all animals called Rodents, or Gnawers, would soon be worn away, but that, unlike our teeth, they never cease growing while the creature lives. The most interesting of these creatures is the Beaver, with its webbed hind feet and broad tail. I hope you will some day read about the mud-built houses, and the clever dams which beavers make across the rivers. Mr. Wood says that when they have been tamed they will still go on building dams across one corner of the room in which they are, and collecting boots, brushes, books, all sorts of things, and putting them together industriously; for they still have in captivity the same instinct which teaches them to dam the stream where they build, so that the entrance to their houses may always be below the surface, and never be barred by the ice, during frost.

The teeth of horses are differently formed from those of the gnawing animals: at the back they are massive, and act like grindstones, crushing the grain which they eat. The Horse-family includes the patient Ass, and the beautifully marked Zebra of South Africa. I need not tell you that all these animals have only one toe, with that hard and strong toe-nail which is called the hoof.

The Ruminants, or animals that chew the cud, are cows, sheep, and goats, deer, giraffes, and camels.

You have often noticed a Cow when lying down in the field, going on eating, although she seems to have no food before her. This is because she has already eaten plenty of grass, very fast, and now that she is resting, she brings what she has, as it were, laid up in store, back into her mouth, and chews it over again.

I think there are no animals so often mentioned in the Bible as oxen, sheep, and lambs, goats and kids; and they are the only creatures, except the turtle dove and the pigeon, which were offered as sacrifices, from the time when Eve's second son brought of the firstlings of his flock, and of the fat thereof, "and the Lord had respect unto Abel and to his offering."

All creatures that chew the cud have two toes, or are what is called cloven-footed. The Camel, whose home is in the dry and thirsty desert, has the power of storing up water, and bringing it back into its mouth for several days after it has drunk it. This enables it to make long journeys, without needing a brook by the way. Its feet, too, are just fitted for the sandy wastes which it has to tread. The one-humped camel is found in Africa, and the two-humped, or Bactrian camel, in Asia. The Llama of South America is like the camel in some respects, but, as you know, is very much smaller; I knew one which had a disagreeable habit of spitting at those who came to call upon him, and I have read of others doing the same. We read of Abraham having camels, and of John the Baptist wearing clothes made of

camel's hair, and that King Solomon had deer.

The beautiful Giraffe, found only in South Africa, is like the camel in some respects, and the deer in others. That long neck which it arches so gracefully when you offer it a bun, enables it in its forest-home to feed upon the leaves of trees; so you see it is for use, not only for beauty.

There could hardly be a greater contrast to the giraffe than the Elephant, with its short neck and large body; but what the giraffe can do with its long neck, that, and a great deal more, the elephant can do with the wonderful trunk which is his nose, his hand, his trumpet, and we might almost say his mouth, as he could neither reach his food nor drink except by its help, his neck being so short.

There are only two kinds of elephants, the Asiatic and the African, the latter having very large ears, and the former only being tamed; the African elephant is hunted merely for the sake of its ivory tusks.

In a delightful story book, called *Friends in Fur and Feathers*, we had all read a very interesting account of a young elephant called Kornegalle Jack, which became exceedingly attached to his master. I wonder whether you know it? If you do not, perhaps you might have the book for your next birthday present, and read a great deal about elephants, as well as other animals, whose names only we have time, to mention now.

But you will say, perhaps, that we have forgotten one kind of animal, for we have not said a word about Pigs. Well, Piggie has not been forgotten; but it seems difficult for him to find just his own place among the classes of Mammalia, for he is like several of the quadrupeds in some particular, but unlike any one of them altogether. You cannot put him with the Ruminants, and yet he has cloven feet; he has the same number of teeth as the horse, and his snout is rather like, in a small way, the trunk of the elephant; then, in his wild state, he might almost be reckoned among the beasts of prey, for the wild Boar, with its terrible tusks, is a most formidable creature to encounter.

Of all the families of the Mammalia, that of Rats and Mice is the most numerous. There are two kinds of rats, the black and the brown. I do not know to which kind Willie's "Ratto" belongs, but I have heard many stories of his clever tricky ways, and of how well he knew his name, and obeyed his master.

A rat, however clever, is not an animal which I should care to pet and tame; but I know a very interesting story of one which seemed to be the means of taming a poor man who was so wild and miserable that he cared for nobody. This man had been transported for life, for some of his wicked deeds, and he was so savage that even the companions who worked with him were afraid of him, and hardly dared speak to him.

Once, as he was at work in the woods near Port Philip, felling trees, with a heavy chain around him lest he should escape, a rat, chased by some boys, ran towards him, and nestled inside his shirt. There the frightened creature lay, in its place of refuge, close to that hard heart which cared

for no fellow-man; and as the poor lonely convict felt its fluttering, a strange feeling came over him towards the trembling thing which had thus trusted him. He asked leave to keep it as a pet, and from that time the rat followed its protector everywhere, faithful and loving as a dog; and from caring for his little rescued friend, the man who had been so savage and hard, became more gentle, and no longer needed to be chained, and kept almost as if he had been a wild beast. There is a sad ending to this story, for at last the rat was killed by a bough falling upon it, and its death caused such grief to its master that he never spoke again; but I do not know his history to the very end, and I hope that even through seeing the gratitude and faithfulness of one of the creatures whom God had made, he may have learnt that the God against whom he had so hardened himself was ready to forgive and to receive him, for the sake of the Lord Jesus Christ, who came "to seek and to save that which was lost."

We must not forget the Toothless animals, of which the Ant-eater is the best known. They live upon insects, chiefly white ants, which they catch by tearing open their houses with their strong claws, and then rolling their long tongues among them. The tongue of the ant-eater is covered with a kind of gum, to which the ants stick, and when there is room for not one more, the living mouthful is swallowed.

Perhaps your cousins in Australia sometimes tell you about the great Kangaroo, or "Old man," as they call him in that part of the world. By means of his very long and powerful hind legs, and strong tail, he can leap great distances, so rapidly as to outstrip a greyhound. There are many species of kangaroos, but they are all much alike, and belong to the order of Pouched animals; so called because instead of rearing her young in a nest which she has made for them, the mother carries them in a bag. The little creatures at their birth are more helpless than most young animals, and this pouch is their home for some time, and their refuge in danger, even after they have grown beyond the need of her constant care.

Australia has no animals like those of other parts of the world, except the dog and the bat; but only one of these pouched animals--the Opossum of America--is not found there. This creature is very like a monkey, and the one best known in the southern states of America is about the size of a cat, and very mischievous--as it sleeps during the day and prowls about at night, in search of birds, eggs, and fruit. It has the power, which some animals possess, of pretending to be dead, when in danger of being caught; and thus it often escapes.

Seals and Whales must also be classed among the Mammalia, although they are especially formed to live in the water.

Whales, though so much like fishes that they used to be classed with them, have warm blood and do not breathe through gills; so they have to come to the surface of the water every now and then, in order to get air. By-and-by, when you read more, you will understand how it is that the whale, though it breathes as you do, is able to stay under water as long as half an hour at a time.

Now, at the end of this long chapter about the Mammalia, let us see what we

have been noticing about them.

They are put first in the Vertebrate Group, though we have spoken of the birds and fishes before them, because they were made on the Fifth Day.

They are generally--for we must not forget the whale--covered with hair or fur, and they feed their young with milk. First of the classes into which the Mammalia are divided, we place the Four-handed creatures--apes and monkeys.

Second, the Hand-winged; the bats.

Third, the Flesh-eaters; many of them beasts of prey of the Cat-kind and of the Dog-kind.

Fourth, the Herbivora; animals which feed upon grasses.

Fifth, the Horse-tribe.

Sixth, the Ruminants; animals which chew the cud.

Seventh, Elephants.

Eighth, the Pig-kind, including the Hippopotamus which is believed to be the creature called Behemoth.

Ninth, the Pouched animals.

Tenth, Seals, including the Walrus.

Eleventh, the Whale-tribe.

In saying "good-bye for the present" to this wide field of interest, shall we make up our minds to observe for our own selves the animals which we see every day, and to notice particularly how beautifully they are formed so as to live in the way which is, as we say, suited to their nature; and also to read some of the many interesting books on Natural History, where we shall find pictures of the different "orders" of animals, and learn all sorts of curious things about their habits?

God does not tell us what we do not need to know, just how he fed the beasts of prey, and all the flesh-eating creatures which, in their present state, live upon birds or animals which they catch alive; but God does not say either that there was any death in the Garden of Eden, or that the creatures which He had just made, each "after its kind," and all "very good," preyed upon those weaker and smaller than themselves. It has been found that it is possible now for those beasts whose claws are fitted for catching their prey--and their long sharp teeth for tearing to pieces what they have caught--to live upon green things; and we know from the chapter we have been reading together that God at the first gave them "every green herb for meat."

Perhaps some of us have already read this beautiful poem in Scattered

Seed\_, but I will copy it for others who may not know it.

"GOD IS LOVE.

"All the earth, about us,  
All the world above,  
Tell the old sweet story,  
Whisper, 'God is Love.'  
Every wayside blossom  
Lifts its little voice,  
Every bright-eyed daisy  
Bids our heart rejoice.

"Surging, seething torrent,  
Bubbling, sparkling spring,  
Hum of insect nature,  
Birds upon the wing,  
Evening's flush of beauty,  
Morning's streaks of light,  
Noonday's radiant glory,  
All in praise unite.

"See His kind provision  
Waving in the grain,  
Shining in the sunbeams,  
Falling in the rain;  
Parching days of summer,  
Cool the dewy fall,  
Hoary frost of winter,  
Sheltering snow o'er all.

"Swift o'er trackless region  
Runs the lurid flash,  
Sounds from hill to moorland,  
Deep resounding crash,  
Towering peak and cranny,  
Eagles' dizzy height,  
Dignity and splendour,  
All reveal His might.

"Nature's varied voices  
Chant the sweet refrain,  
Echo o'er the mountain,  
Linger on the plain,  
Thunder in the ocean,  
Whisper in the shell,  
Murmur in the breezes,  
Sighing in the dell.

"Shall our lips be silent?  
Shall our lives be still?  
Tune our hearts, O Father,  
To perform Thy will;

Fill our souls with rapture,  
Fill our hearts with praise,  
Give us grace to follow  
Gladly all our days."

M. A. E.

## THE SIXTH DAY

### THE CROWN OF GOD'S CREATION.

"\_The Spirit of God hath made me, and the breath of the Almighty hath given me life.\_"--JOB xxxiii. 4.

"\_In Him we live, and move, and have our being ... for we are also His offspring.\_"--ACTS xvii. 28.

"\_I will praise Thee: for I am fearfully and wonderfully made.\_"--PSALM cxxxix. 14.

"\_Ye are bought with a price: therefore glorify God in your body.\_"--1 COR. vi. 20.

Before we speak of the last work of God upon the last of those wonderful days of which we are told in the first chapter of the Bible, let us read the verses about it, from the twenty-sixth to the end of that chapter, and to the tenth verse of the next. And then let us read the eighth Psalm, unless indeed you can repeat it, as my little scholars once could--and I hope they have not forgotten it now.

I think the first thing we noticed as we read was, that after the verses which speak of the beasts and creeping things which God made on the SIXTH DAY, there is, as it were, a close to the history, and then a fresh beginning.

We read, "And God saw that it was good." There is a full stop there; and again we read--now for the eighth time--the three words, "And God said."

But this is not all; a very wonderful expression, which had not been used in connection with any part of the work of God, is employed to tell us of the creation of the man who was placed by God as the head of all that He had made, the one to whom He gave dominion, after He had made the earth, and brought it all into order.

God had said, "Let the waters bring forth.... Let the earth bring forth" living creatures. "And God made the beast of the earth"; but before man was created He said, "Let us make man in our image, after our likeness."

Of no other creature could it be said that he was made in the likeness of God, and of no other do we read that he was "formed" by God "of the dust of the ground," and that the Lord God "breathed into his nostrils the breath of life"; then, and not till then, did man become a "living soul." The body was made of earth, but the soul came immediately from God.

The more we learn about our own body, that wonderful and beautiful house in which we live, the more we shall see, in what God thus formed from the dust of the ground, to call forth our admiration; but the body of the first man, although fashioned with such perfection in all its parts, did not live until God breathed into his nostrils the breath of life.

Let us never forget how great a difference God has put between man, about whose creation He took thought, and who was made in His image, to whom He has given speech, reason, and a deathless soul, and all the creatures concerning which we read none of these things.

And now let us learn just a very little about the way in which God has formed what His word speaks of as our "house" or "tent"--the dwelling-place of the soul and spirit.

It would be strange indeed if we did not care to know something about our own home; but our body is not only the house in which we live, it is also the means, through those five senses--the eye, the ear, and the organs of touch, taste, and smell--which have been so well called "the five gateways of knowledge," by which we learn all that can be known by us of the world outside us.

More than this, it is the wonderfully perfect instrument, and implicitly obedient servant, by which all that we do is performed.

But the science that teaches us all that is known about our bodies is a very difficult study, and there are many hard names to master, even at the very outset. For instance, when we speak of the bony framework--that skeleton which, as you know, belongs to us in common with the vertebrate animals--there is a great deal which you would find very difficult to remember.

Still, as I daresay you have found out, the more we learn, even of difficult sciences, the more we can learn, and little May (though, to be sure, she is now four years older than she was when you first made her acquaintance) has learnt a good many of the hard words. She could show you upon her own round arm, just where the bone which reaches from the shoulder to the elbow begins and ends, and tell you its name, and the names of the two bones which reach from the elbow to the wrist, and of the wrist-bones, and of those which you can feel in the palm of your hand, and the finger-bones.

But when you hear that you have more than two hundred bones in your body, you will be inclined to agree with me that it would take both of us some time to learn even their names, much more to know all about them.

The spine consists of twenty-four short bones, each with a little ring.

These vertebrae are piled up one upon the other; for God has made our bodies upright; our faces, are lifted upwards, and our eyes look straight before us. These twenty-four little bones are closely and strongly bound together, and between each one and its neighbour there is something so soft and elastic that we can bend our heads, or move in any direction, without the slightest strain or jar.

The head is most wonderfully built up, like an arch, of several bones beautifully joined in a very strong and perfect way which carpenters call "dove-tailing." We can understand why the head, which is so much exposed, and is almost entirely occupied by the brain, should be so carefully protected; for thought, memory, will, and what we can best express as "consciousness of our being," all depend upon it.

Passing from head to foot, we find that our feet, which are not large, yet must bear the weight of the body, are also made upon the arch-principle, which has been found, like the hollow bones of the bird's wing, to combine lightness and strength. The twenty-six bones are so fitted together that this wonderful arch is quite elastic, as you can prove by moving your own foot up and down.

The joints, where two bones which are to play upon each other come in contact, as they do at the elbow or shoulder, are made in different ways. The elbow only moves to and fro like a hinge; the hip and shoulder, like a "ball and socket," move every way. You do not need to be told that each kind of joint is found just where it is needed for the work it has to do; for there is no mistaking or misplacing in God's workmanship, as there so often is in the very best of \_ours\_.

I cannot at present tell you anything about the muscles, except that it is by their means that we move arms, legs, head, eyes--every part of the body, for bones cannot move of themselves, but are acted on by the muscles.

Nor can we learn much about the nerves, because the subject is very difficult to understand. They come from the brain in the head, and from that part of it which runs all down the backbone, through the little bony rings of the vertebrae; and they are protected, because they are so very delicate, and so precious to us, by a strong bony sheath. At first these nerves are like coarse twine, but they divide and divide until they become as fine as threads of white silk--almost as fine as the stronger part of a spider's web--and they go all over the body, reaching to the very tips of the fingers.

The first pair of nerves goes to the nose, for smell; the second to the eye, for sight; and so on for hearing and taste. These are the nerves called "sensory," which carry to the brain sensations from outside the body. The "motor" nerves are those which take orders from the brain, to be instantly obeyed by the muscles.

In the hand, which has twenty-seven bones--one more than the foot--and is a more wonderful "tool" than any which God has given to the lower animals, wonderful as \_their\_ tools are, the sense of touch is stronger than in any other part of the body.



Suppose you put your fingers upon something very hot or very cold. "Quick as thought," as we say, you draw them away again. But before you did so, what had happened?

The nerves at the tip of your finger had sent a telegram straight home to the brain, "Too hot!" or "Too cold!" and the brain had telegraphed back to the fingers, "Keep out of the way of it!" whatever the hot or cold thing may have been.

To think, even for a moment, of these lightning messages running backwards and forwards, to and from the brain, gives us some little idea how very wonderful the brain itself must be, and also how God has made one part of the body to depend upon another.

Apart from the brain, the ear would be conscious of no sound, whether the soft wash of the waves along the shore, or the mighty roll of the thunder through the sky. On the other hand, none of these voices could reach the brain if God had not "planted the ear," and formed it so perfectly to receive the waves of sound which, striking upon its delicate little "drum," cause it to vibrate, and so are passed on by the nerve which takes messages to the brain. For it is the brain which takes charge of every "impression" conveyed to it by eye, ear, hand, nose, or palate; but how these impressions conveyed to the brain give rise to what we call "thoughts" and "ideas"--this is one of the secret things which belong to God, and of which He has not allowed the wisest man to say, "Oh yes, I understand all about it!"

And there is another secret thing which cannot be explained. The heart has been called "the fountain of life," because by it the blood, which is the life of the body, is kept in continual motion, and sent to every part. How little we think of it! But whether we are waking or sleeping, at work or at rest, this busy fountain still goes on playing. We may hear the throb of it, as it strikes against the chest, in its ceaseless working; and we may count these regular "beats," and find that there are about seventy-five of them every minute. It has been calculated that during an ordinarily long life there are three thousand millions of beats without a break. But what has set this fountain at work? and what keeps it going night and day without any thought or care of ours, all our life long? Of all this it can only be said, "We do not know; we cannot find out. God in His wisdom has so ordered it."

Many years ago a doctor, who had observed very carefully, and thought much about what he observed, found out that every time the heart beats, the blood rushes from it into a great curved tube called an artery, and so passes through tubes which, like the nerves, are constantly becoming finer and finer, to every part of the body.

He also discovered that the blood takes its journey back again to the heart by a different road: it does not return through these tubes, but through softer ones, called veins. Thus far he could go, and the story of the "circulation" of the blood is very interesting; but the cause of the heart's perpetual motion, and the blood's continuous flow, this he could

not discover.

Is it not wonderful to think that this rapid motion of the fountain within us goes on so noiselessly that even a baby whose little heart has only just begun to beat, is not disturbed by it, as he sleeps in his cradle?

To all the "higher animals" God has given both heart and brain. He has also given them, in more or less degree, that mysterious sense of which we have spoken before, and of which we have had so many proofs; a sense which is not at all dependent upon reason or intellect, but is found in a less degree in men than in animals to which reason has not been given.

We have before noticed that by instinct and memory all the wants of the brute creation are met; God has given them all that they need to teach them to live, each in its own life, after its kind, and to provide for their young ones; but He has not given to the "beasts that perish" the power of, as we sometimes say, "putting this and that together," nor, as far as we know, of learning by experience; although it does seem as if the spiders, in making their webs, improve by practice.

Instinct teaches every living thing to get its own food, choosing that which is suited to itself, and rejecting that which is not. It teaches the bird or the insect to seek out a fit place in which to deposit its eggs, or to make a nest or "homie" for them, even before they are laid; and it can teach even such a free creature as a bird to leave for a time its airy life, and to sit patiently upon its eggs, even carefully turning them, as if it knew that the life of the unfledged nursling within the shell-wall depended upon its being kept warm.

Instinct leads the butterfly, as we have seen, to lay its eggs upon the leaf of the very tree upon which the caterpillar, when hatched, will feed--though its own food has been taken from flowers.

Instinct guides the swallow in its flight, as it leaves us in the autumn for the shores of Africa; and the redwing on its way from its summer home in the far North to winter in our warmer country--each arriving in its appointed season.

[Illustration: THE SWALLOW.]

And so, as we study the habits of birds and beasts, we see how instinct everywhere guides and directs them; but what this sense is we cannot tell. It has been well remarked, that all that can rightly be said of it is, that it is "a guide which God, in His care for His creatures, has given them, and caused them to obey."

We also noticed in reading these verses that until man was formed, there was no lord over the Creation, but that to Adam God gave dominion over all; nothing was expected, and he was owned as head, God Himself bringing the creatures to him that they might receive their names from him, though Adam himself was still under God, and every benefit with which the Creator loaded him, only left him so much more bound to own His right over him.

As God has made us for Himself, He has given to every man, even the rudest savage, something within him which reminds him of One to whom he of right belongs; however far he may have got away from Him, or may have tried to satisfy his conscience--that "eye of the soul"--by seeking to please some idol-god which he has made for himself.

God has also given proof of His "eternal power and Godhead" by "the things that are made"--His glorious works in Creation.

Listen to what a Red chief, far away in North America, said to a missionary the other day:--

"I have long lost faith"--this was his confession--"in the old paganism. They know I have not cared for the old religion. I have neglected it. And I will tell you, missionary, why I have not believed in our old paganism for a long time.

[Illustration: NORTH-AMERICAN INDIANS.]

"I hear God in the thunder, in the tempest, and in the storm; I see His power in the lightning that shivers the trees into kindling-wood; I see His goodness in giving us the moose, the reindeer, the beaver, and the bear; I see His loving-kindness in giving us, when the south winds blow, the ducks and geese; and when the snow and ice melt away, and our lakes and rivers are open again, I see how He fills them with fish. I have watched these things for years, and I see how every moon of the year He gives us something; and He has so arranged it that, if we are only industrious and careful, we can always have something to eat.

"So, thinking about these things which I had observed, I made up my mind years ago that this Great Spirit--so kind and so watchful and so loving--did not care for the beating of the conqueror's drum, or the shaking of the rattle of the medicine man. So for years I have had no religion.

"Missionary, what you have said to-day fills my heart, and satisfies my longings. It is just what I have been expecting to hear about the Great Spirit. I am glad you have come with this wonderful story; stay as long as you can." [Footnote: From By Canoe and Dog-Train, p. 119.]

Nothing more than the fact that man was made, not like even an angel or an archangel, but in the image of God, is needed to show how far beyond and above every creature he was; and, as no creature owed so much to the Creator, none was responsible to Him in the same way. No one had any right over him except the One who had made him for Himself, his Creator, without whom he would not have been.

"The ox knoweth its owner, and the ass his master's crib." (Isa. i. 3.)

God has made the animals faithful and affectionate, and there are many true and touching stories of the way in which they have attached themselves to those who have cared for them. A dog will devote itself to its own master, and even give its life for him; but no mere animal has that within him

which can have to say to God and be in relationship with Him. And how sad it is to think that the only creature of God who could know Him is the one who has turned away from Him and listened to the spoiler!

At the beginning God could say of all Creation "\_very good\_"; though there is a wonderful beauty still--beauty everywhere if we have eyes to see it--He cannot say "\_very good\_" where decay, pain, sorrow, death are all around; where we grow weak and old, and even while we are young and strong, the most pleasant things tire us; where hatred and envy, shame and fear--all the sad feelings brought by sin--exist in the heart of the last and best of His creatures, to whom His voice and His presence once brought only joy. "By one man sin entered into the world, and death by sin." And who can say how terrible has been the change thus wrought?

Sad indeed is the wreck which Satan has made of God's fair Creation, but a sadder wreck still is the man whom He made upright; and yet the day is surely coming when round and round the throne of "Him that liveth for ever and ever" shall echo and re-echo the words, "Thou art worthy, O Lord, to receive glory and honour and power; for Thou hast created all things, and for Thy pleasure they are and were created."

God does not mend things, but replaces what has been spoilt or marred by something far better. Even the poor earth, so ruined by sin and its consequences, He will not mend; but He will make "new heavens and a new earth" (never more to bear the marks of the spoiler's hand) "wherein dwelleth righteousness."

But before the new heavens and new earth are created, a great deal will take place upon this earth of which we have been speaking. The Jews, now scattered in every land, will pass through much trouble, the lost tribes will be found and restored, and the Lord will put down all His enemies, and "reign in righteousness" as King over His once again united people Israel. There will be a thousand years of wonderful peace, and Jerusalem will be the centre of earthly blessing; for He says of it, "The name of the city from that day shall be 'Jehovah Shammah' (the Lord is there)" (Ezek. xlvi. 35); and again, "They shall call thee 'the city of the Lord'; and "Thou shalt call thy walls 'Salvation,' and thy gates 'Praise'" (Isa. lx. 14-18).

Those who know the Lord Jesus Christ as their Saviour now, will be with Him when He thus reigns over the earth, for they will be caught up to be with Him for ever, before the time of trouble (followed by earthly blessing) begins. In those thousand years of peace even the animals which have so long suffered through man's sin and oppression will share in the rest of that happy time, and God's ancient people Israel, once more dwelling safely in their own land, will sing many of the Psalms in His Word for joy and happiness.

The following hymn speaks of that good time which is surely coming:--

"Hail to the Lord's Anointed,  
Great David's greater Son!  
Hail, in the time appointed,

His reign on earth begun!  
He comes to break oppression,  
To set the captive free,  
To take away transgression,  
And rule in equity.

"He shall come down like showers  
Upon the fruitful earth,  
And love, joy, hope, like flowers,  
Spring in His path to birth;  
Before Him on the mountains,  
Shall peace the herald, go,  
And righteousness in fountains  
From hill to valley flow.

"Kings shall fall down before Him,  
And gold and incense bring;  
All nations shall adore Him,  
His praise all people sing;  
For He shall have dominion  
O'er river, sea, and shore,  
Far as the eagle's pinion  
Or dove's light wing can soar.

"O'er every foe victorious.  
He on His throne shall rest;  
From age to age more glorious,  
All blessing and all-blest;  
The tide of time shall never  
His covenant remove;  
His name shall stand for ever,  
That name to us is Love."

\*\*\* END OF THE PROJECT GUTENBERG EBOOK, TWILIGHT AND DAWN \*\*\*

This file should be named 7twlt10.txt or 7twlt10.zip  
Corrected EDITIONS of our eBooks get a new NUMBER, 7twlt11.txt  
VERSIONS based on separate sources get new LETTER, 7twlt10a.txt

Project Gutenberg eBooks are often created from several printed editions, all of which are confirmed as Public Domain in the US unless a copyright notice is included. Thus, we usually do not keep eBooks in compliance with any particular paper edition.

We are now trying to release all our eBooks one year in advance of the official release dates, leaving time for better editing. Please be encouraged to tell us about any error or corrections, even years after the official publication date.

Please note neither this listing nor its contents are final til

midnight of the last day of the month of any such announcement. The official release date of all Project Gutenberg eBooks is at Midnight, Central Time, of the last day of the stated month. A preliminary version may often be posted for suggestion, comment and editing by those who wish to do so.

Most people start at our Web sites at:

<http://gutenberg.net> or

<http://promo.net/pg>

These Web sites include award-winning information about Project Gutenberg, including how to donate, how to help produce our new eBooks, and how to subscribe to our email newsletter (free!).

Those of you who want to download any eBook before announcement can get to them as follows, and just download by date. This is also a good way to get them instantly upon announcement, as the indexes our cataloguers produce obviously take a while after an announcement goes out in the Project Gutenberg Newsletter.

<http://www.ibiblio.org/gutenberg/etext05> or

<ftp://ftp.ibiblio.org/pub/docs/books/gutenberg/etext05>

Or /etext04, 03, 02, 01, 00, 99, 98, 97, 96, 95, 94, 93, 92, 92, 91 or 90

Just search by the first five letters of the filename you want, as it appears in our Newsletters.

Information about Project Gutenberg (one page)

We produce about two million dollars for each hour we work. The time it takes us, a rather conservative estimate, is fifty hours to get any eBook selected, entered, proofread, edited, copyright searched and analyzed, the copyright letters written, etc. Our projected audience is one hundred million readers. If the value per text is nominally estimated at one dollar then we produce \$2 million dollars per hour in 2002 as we release over 100 new text files per month: 1240 more eBooks in 2001 for a total of 4000+ We are already on our way to trying for 2000 more eBooks in 2002 If they reach just 1-2% of the world's population then the total will reach over half a trillion eBooks given away by year's end.

The Goal of Project Gutenberg is to Give Away 1 Trillion eBooks! This is ten thousand titles each to one hundred million readers, which is only about 4% of the present number of computer users.

Here is the briefest record of our progress (\* means estimated):

eBooks Year Month

1 1971 July  
10 1991 January  
100 1994 January  
1000 1997 August  
1500 1998 October  
2000 1999 December  
2500 2000 December  
3000 2001 November  
4000 2001 October/November  
6000 2002 December\*  
9000 2003 November\*  
10000 2004 January\*

The Project Gutenberg Literary Archive Foundation has been created to secure a future for Project Gutenberg into the next millennium.

We need your donations more than ever!

As of February, 2002, contributions are being solicited from people and organizations in: Alabama, Alaska, Arkansas, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

We have filed in all 50 states now, but these are the only ones that have responded.

As the requirements for other states are met, additions to this list will be made and fund raising will begin in the additional states. Please feel free to ask to check the status of your state.

In answer to various questions we have received on this:

We are constantly working on finishing the paperwork to legally request donations in all 50 states. If your state is not listed and you would like to know if we have added it since the list you have, just ask.

While we cannot solicit donations from people in states where we are not yet registered, we know of no prohibition against accepting donations from donors in these states who approach us with an offer to donate.

International donations are accepted, but we don't know ANYTHING about how to make them tax-deductible, or even if they CAN be made deductible, and don't have the staff to handle it even if there are ways.

Donations by check or money order may be sent to:

PROJECT GUTENBERG LITERARY ARCHIVE FOUNDATION  
809 North 1500 West  
Salt Lake City, UT 84116

Contact us if you want to arrange for a wire transfer or payment method other than by check or money order.

The Project Gutenberg Literary Archive Foundation has been approved by the US Internal Revenue Service as a 501(c)(3) organization with EIN [Employee Identification Number] 64-622154. Donations are tax-deductible to the maximum extent permitted by law. As fund-raising requirements for other states are met, additions to this list will be made and fund-raising will begin in the additional states.

We need your donations more than ever!

You can get up to date donation information online at:

<http://www.gutenberg.net/donation.html>

\*\*\*

If you can't reach Project Gutenberg,  
you can always email directly to:

Michael S. Hart <[hart@pobox.com](mailto:hart@pobox.com)>

Prof. Hart will answer or forward your message.

We would prefer to send you information by email.

**\*\*The Legal Small Print\*\***

(Three Pages)

**\*\*\*START\*\*THE SMALL PRINT!\*\*FOR PUBLIC DOMAIN EBOOKS\*\*START\*\*\***

Why is this "Small Print!" statement here? You know: lawyers.

They tell us you might sue us if there is something wrong with your copy of this eBook, even if you got it for free from someone other than us, and even if what's wrong is not our fault. So, among other things, this "Small Print!" statement disclaims most of our liability to you. It also tells you how you may distribute copies of this eBook if you want to.

**\*BEFORE!\* YOU USE OR READ THIS EBOOK**

By using or reading any part of this PROJECT GUTENBERG-tm eBook, you indicate that you understand, agree to and accept this "Small Print!" statement. If you do not, you can receive



a refund of the money (if any) you paid for this eBook by sending a request within 30 days of receiving it to the person you got it from. If you received this eBook on a physical medium (such as a disk), you must return it with your request.

#### ABOUT PROJECT GUTENBERG-TM EBOOKS

This PROJECT GUTENBERG-tm eBook, like most PROJECT GUTENBERG-tm eBooks, is a "public domain" work distributed by Professor Michael S. Hart through the Project Gutenberg Association (the "Project"). Among other things, this means that no one owns a United States copyright on or for this work, so the Project (and you!) can copy and distribute it in the United States without permission and without paying copyright royalties. Special rules, set forth below, apply if you wish to copy and distribute this eBook under the "PROJECT GUTENBERG" trademark.

Please do not use the "PROJECT GUTENBERG" trademark to market any commercial products without permission.

To create these eBooks, the Project expends considerable efforts to identify, transcribe and proofread public domain works. Despite these efforts, the Project's eBooks and any medium they may be on may contain "Defects". Among other things, Defects may take the form of incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other eBook medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

#### LIMITED WARRANTY; DISCLAIMER OF DAMAGES

But for the "Right of Replacement or Refund" described below, [1] Michael Hart and the Foundation (and any other party you may receive this eBook from as a PROJECT GUTENBERG-tm eBook) disclaims all liability to you for damages, costs and expenses, including legal fees, and [2] YOU HAVE NO REMEDIES FOR NEGLIGENCE OR UNDER STRICT LIABILITY, OR FOR BREACH OF WARRANTY OR CONTRACT, INCLUDING BUT NOT LIMITED TO INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES, EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

If you discover a Defect in this eBook within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending an explanatory note within that time to the person you received it from. If you received it on a physical medium, you must return it with your note, and such person may choose to alternatively give you a replacement copy. If you received it electronically, such person may choose to alternatively give you a second opportunity to receive it electronically.

THIS EBOOK IS OTHERWISE PROVIDED TO YOU "AS-IS". NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, ARE MADE TO YOU AS TO THE EBOOK OR ANY MEDIUM IT MAY BE ON, INCLUDING BUT NOT

LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow disclaimers of implied warranties or the exclusion or limitation of consequential damages, so the above disclaimers and exclusions may not apply to you, and you may have other legal rights.

INDEMNITY

You will indemnify and hold Michael Hart, the Foundation, and its trustees and agents, and any volunteers associated with the production and distribution of Project Gutenberg-tm texts harmless, from all liability, cost and expense, including legal fees, that arise directly or indirectly from any of the following that you do or cause: [1] distribution of this eBook, [2] alteration, modification, or addition to the eBook, or [3] any Defect.

DISTRIBUTION UNDER "PROJECT GUTENBERG-tm"

You may distribute copies of this eBook electronically, or by disk, book or any other medium if you either delete this "Small Print!" and all other references to Project Gutenberg, or:

[1] Only give exact copies of it. Among other things, this requires that you do not remove, alter or modify the eBook or this "small print!" statement. You may however, if you wish, distribute this eBook in machine readable binary, compressed, mark-up, or proprietary form, including any form resulting from conversion by word processing or hypertext software, but only so long as \*EITHER\*:

[\*] The eBook, when displayed, is clearly readable, and does \*not\* contain characters other than those intended by the author of the work, although tilde (~), asterisk (\*) and underline (\_) characters may be used to convey punctuation intended by the author, and additional characters may be used to indicate hypertext links; OR

[\*] The eBook may be readily converted by the reader at no expense into plain ASCII, EBCDIC or equivalent form by the program that displays the eBook (as is the case, for instance, with most word processors); OR

[\*] You provide, or agree to also provide on request at no additional cost, fee or expense, a copy of the eBook in its original plain ASCII form (or in EBCDIC or other equivalent proprietary form).

[2] Honor the eBook refund and replacement provisions of this

"Small Print!" statement.

[3] Pay a trademark license fee to the Foundation of 20% of the gross profits you derive calculated using the method you already use to calculate your applicable taxes. If you don't derive profits, no royalty is due. Royalties are payable to "Project Gutenberg Literary Archive Foundation" the 60 days following each date you prepare (or were legally required to prepare) your annual (or equivalent periodic) tax return. Please contact us beforehand to let us know your plans and to work out the details.

WHAT IF YOU \*WANT\* TO SEND MONEY EVEN IF YOU DON'T HAVE TO?

Project Gutenberg is dedicated to increasing the number of public domain and licensed works that can be freely distributed in machine readable form.

The Project gratefully accepts contributions of money, time, public domain materials, or royalty free copyright licenses.

Money should be paid to the:

"Project Gutenberg Literary Archive Foundation."

If you are interested in contributing scanning equipment or software or other items, please contact Michael Hart at:  
hart@pobox.com

[Portions of this eBook's header and trailer may be reprinted only when distributed free of all fees. Copyright (C) 2001, 2002 by Michael S. Hart. Project Gutenberg is a TradeMark and may not be used in any sales of Project Gutenberg eBooks or other materials be they hardware or software or any other related product without express permission.]

\*END THE SMALL PRINT! FOR PUBLIC DOMAIN EBOOKS\*Ver.02/11/02\*END\*

D\*

ease over 100 new text

files per month: 1240 more eBooks in 2001 for a total of 4000+

We are already on our way to trying for 2000 more eBooks in 2002

If they reach just 1-2% of the world's population then the total

will reach over half a trillion eBooks given away by year's end.

The Goal of Project Gutenberg is to Give Away 1 Trillion eBooks!

This is ten thousand titles each to one hundred million readers,  
which is only about 4% of the present number of computer users.

Here is the briefest record of our progress (\* means estimated):

eBooks Year Month

1	1971	July
10	1991	January
100	1994	January
1000	1997	August
1500	1998	October
2000	1999	December
2500	2000	December
3000	2001	November
4000	2001	October/November
6000	2002	December*
9000	2003	November*
10000	2004	January*

The Project Gutenberg Literary Archive Foundation has been created  
to secure a future for Project Gutenberg into the next millennium.

We need your donations more than ever!

As of February, 2002, contributions are being solicited from people

and organizations in: Alabama, Alaska, Arkansas, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

We have filed in all 50 states now, but these are the only ones that have responded.

As the requirements for other states are met, additions to this list will be made and fund raising will begin in the additional states. Please feel free to ask to check the status of your state.

In answer to various questions we have received on this:

We are constantly working on finishing the paperwork to legally request donations in all 50 states. If your state is not listed and you would like to know if we have added it since the list you have, just ask.

While we cannot solicit donations from people in states where we are not yet registered, we know of no prohibition against accepting donations from donors in these states who approach us with an offer to

donate.

International donations are accepted, but we don't know ANYTHING about how to make them tax-deductible, or even if they CAN be made deductible, and don't have the staff to handle it even if there are ways.

Donations by check or money order may be sent to:

PROJECT GUTENBERG LITERARY ARCHIVE FOUNDATION

809 North 1500 West

Salt Lake City, UT 84116

Contact us if you want to arrange for a wire transfer or payment method other than by check or money order.

The Project Gutenberg Literary Archive Foundation has been approved by the US Internal Revenue Service as a 501(c)(3) organization with EIN [Employee Identification Number] 64-622154. Donations are tax-deductible to the maximum extent permitted by law. As fund-raising requirements for other states are met, additions to this list will be made and fund-raising will begin in the additional states.

We need your donations more than ever!

You can get up to date donation information online at:

<http://www.gutenberg.net/donation.html>

\*\*\*

If you can't reach Project Gutenberg,

you can always email directly to:

Michael S. Hart <[hart@pobox.com](mailto:hart@pobox.com)>

Prof. Hart will answer or forward your message.

We would prefer to send you information by email.

**\*\*The Legal Small Print\*\***

(Three Pages)

**\*\*\*START\*\*THE SMALL PRINT!\*\*FOR PUBLIC DOMAIN EBOOKS\*\*START\*\*\***

Why is this "Small Print!" statement here? You know: lawyers.

They tell us you might sue us if there is something wrong with

your copy of this eBook, even if you got it for free from

someone other than us, and even if what's wrong is not our

fault. So, among other things, this "Small Print!" statement

disclaims most of our liability to you. It also tells you how you may distribute copies of this eBook if you want to.

#### **\*BEFORE!\* YOU USE OR READ THIS EBOOK**

By using or reading any part of this PROJECT GUTENBERG-tm eBook, you indicate that you understand, agree to and accept this "Small Print!" statement. If you do not, you can receive a refund of the money (if any) you paid for this eBook by sending a request within 30 days of receiving it to the person you got it from. If you received this eBook on a physical medium (such as a disk), you must return it with your request.

#### **ABOUT PROJECT GUTENBERG-TM EBOOKS**

This PROJECT GUTENBERG-tm eBook, like most PROJECT GUTENBERG-tm eBooks, is a "public domain" work distributed by Professor Michael S. Hart through the Project Gutenberg Association (the "Project").

Among other things, this means that no one owns a United States copyright on or for this work, so the Project (and you!) can copy and distribute it in the United States without permission and without paying copyright royalties. Special rules, set forth below, apply if you wish to copy and distribute this eBook under the "PROJECT GUTENBERG" trademark.

Please do not use the "PROJECT GUTENBERG" trademark to market any commercial products without permission.

To create these eBooks, the Project expends considerable



efforts to identify, transcribe and proofread public domain works. Despite these efforts, the Project's eBooks and any medium they may be on may contain "Defects". Among other things, Defects may take the form of incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other eBook medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

#### LIMITED WARRANTY; DISCLAIMER OF DAMAGES

But for the "Right of Replacement or Refund" described below,

[1] Michael Hart and the Foundation (and any other party you may receive this eBook from as a PROJECT GUTENBERG-tm eBook) disclaims all liability to you for damages, costs and expenses, including legal fees, and [2] YOU HAVE NO REMEDIES FOR NEGLIGENCE OR UNDER STRICT LIABILITY, OR FOR BREACH OF WARRANTY OR CONTRACT, INCLUDING BUT NOT LIMITED TO INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES, EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

If you discover a Defect in this eBook within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending an explanatory note within that time to the person you received it from. If you received it on a physical medium, you must return it with your note, and such person may choose to alternatively give you a replacement

copy. If you received it electronically, such person may choose to alternatively give you a second opportunity to receive it electronically.

THIS EBOOK IS OTHERWISE PROVIDED TO YOU "AS-IS". NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, ARE MADE TO YOU AS TO THE EBOOK OR ANY MEDIUM IT MAY BE ON, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow disclaimers of implied warranties or the exclusion or limitation of consequential damages, so the above disclaimers and exclusions may not apply to you, and you may have other legal rights.

#### INDEMNITY

You will indemnify and hold Michael Hart, the Foundation, and its trustees and agents, and any volunteers associated with the production and distribution of Project Gutenberg-tm texts harmless, from all liability, cost and expense, including legal fees, that arise directly or indirectly from any of the following that you do or cause: [1] distribution of this eBook, [2] alteration, modification, or addition to the eBook, or [3] any Defect.

#### DISTRIBUTION UNDER "PROJECT GUTENBERG-tm"

You may distribute copies of this eBook electronically, or by

disk, book or any other medium if you either delete this

"Small Print!" and all other references to Project Gutenberg,

or:

[1] Only give exact copies of it. Among other things, this requires that you do not remove, alter or modify the eBook or this "small print!" statement. You may however, if you wish, distribute this eBook in machine readable binary, compressed, mark-up, or proprietary form, including any form resulting from conversion by word processing or hypertext software, but only so long as  
**\*EITHER\*:**

[\*] The eBook, when displayed, is clearly readable, and does *\*not\** contain characters other than those intended by the author of the work, although tilde (~), asterisk (\*) and underline ( ) characters may be used to convey punctuation intended by the author, and additional characters may be used to indicate hypertext links; OR

[\*] The eBook may be readily converted by the reader at no expense into plain ASCII, EBCDIC or equivalent form by the program that displays the eBook (as is the case, for instance, with most word processors);  
  
OR

[\*] You provide, or agree to also provide on request at no additional cost, fee or expense, a copy of the eBook in its original plain ASCII form (or in EBCDIC or other equivalent proprietary form).

[2] Honor the eBook refund and replacement provisions of this "Small Print!" statement.

[3] Pay a trademark license fee to the Foundation of 20% of the gross profits you derive calculated using the method you already use to calculate your applicable taxes. If you don't derive profits, no royalty is due. Royalties are payable to "Project Gutenberg Literary Archive Foundation" the 60 days following each date you prepare (or were legally required to prepare) your annual (or equivalent periodic) tax return. Please contact us beforehand to let us know your plans and to work out the details.

WHAT IF YOU \*WANT\* TO SEND MONEY EVEN IF YOU DON'T HAVE TO?

Project Gutenberg is dedicated to increasing the number of public domain and licensed works that can be freely distributed in machine readable form.

The Project gratefully accepts contributions of money, time, public domain materials, or royalty free copyright licenses.

Money should be paid to the:

"Project Gutenberg Literary Archive Foundation."

If you are interested in contributing scanning equipment or

software or other items, please contact Michael Hart at:

hart@pobox.com

[Portions of this eBook's header and trailer may be reprinted only

when distributed free of all fees. Copyright (C) 2001, 2002 by

Michael S. Hart. Project Gutenberg is a TradeMark and may not be

used in any sales of Project Gutenberg eBooks or oth