## THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' 'Pincess Coma,' &c. Illustrated by E. S. FARMER.

(Continued from page 195.)

CHAPTER XXIII. THE TRUTH AND NO LIE.

AH, said Brild to himself, somewhat later. It is done. It is finished.

It was done, it was finished, the thing to which he had set his hand. If not quite in the fashion he had foreseen, yet near enough to it for Brild to be content. And now, back in the cave again, he was toasting himself a titbit he felt he had earned, warming himself at his leisure.

The water was at its closest, he had made sure, before he settled down in comfort. current must be running strongly past the ledge; the road to and from it must be barred. Though Brild had never grown as familiar with the habits of the water as was Lulu, he was certain some time would elapse before it retreated far again. All the time he needed.

A child's bones can be picked quickly.

And, warmed and fed, he was proud of himself too, he thought with good reason. He knew very well he was not as a rule a match for Lulu, that if he tried to outwit her he was usually worsted, that he frequently overlooked some trifle that brought about his own defeat. But surely even she could have been no bolder, no more resourceful, than he had been that day? And soon would come the moment when he could claim the praise that was his due from Zip-Zip.

And not praise only did Zip-Zip owe him, Brild reckoned. She was deeply in his debt since she had done so little, he so much, that was to their mutual advantage. She should

pay him at his leisure.

Brild was pondering on the manner of that payment when Bobo emerged from the side cave, attracted in part by the smell of toasted fish. Moreover, Bobo had suddenly come to the conclusion that his carving again interested him most. He flung himself down by Brild's side at the fire.

'Cook for me,' he ordered as Brild edged

Bobo had been working at Hrump's portrait when he himself had joined Zan, and as Bobo began to search for the broken tool and then to repair it, Brild grew calmer again. He took

care to toast the fish to Bobo's liking, however, and ran to pick up the necklace when the tool was ready.

And as Bobo began to etch Zan's bow, 'Shall I hold the bow for you? 'Brild asked. A curt nod from Bobo sent him scurrying again, and now he began to chatter restlessly, for it was

easier to talk than to keep quiet.

'Only Zip-Zip and I heard what Lulu said last night,' Brild remembered. True, what Lulu had planned would not now materialise, but Bobo might be vexed that she had planned thus at all.

'Shall I hold the bow for you as Zan held it?' Brild began. At which Bobo nodded

again.

'Lulu would not think I can do it as well,' Brild hinted next. 'She thinks so much of Zan,'

he finished meaningly.

But, to his disgust: 'Zan does hold it better than you do. Zan's wrists are far more supple than yours,' his father answered casually.

'Stuff of which to make a chief?' Brild

asked.

'If you do not know,' said Bobo, 'that of the four of you Lulu will always be chief, you have still all to learn and are even more witless than I supposed.'

'Not chief of us,' Brild protested, carried away, for he had meant to tantalise his parent a little longer. 'Not chief of us. Lulu wants

to make Zan chief of the tribe.'

He had struck the right note at last. Bobo was frowning. He scowled as he pointed to his cave.

'All of us?' he fumed. 'I am to leave my work to help in her pranks?' Really angry he looked, but then he smiled. 'So you counted surely on what I would do, Lulu?' he said, and laughing, he turned to his work again.

But Brild did not echo his father's laughter. He had too much food for thought. He had glimpsed unexpectedly what might have happened had he applied to Bobo in the first Quite possibly Bobo could have dealt adequately single-handed with the situa-

'And I need not have risked my life,' thought Brild. Proud though he still was, and though he still counted on a due return from Zip-Zip,

he yet felt distinctly injured.

'And I took Zan fishing,' he grumbled aloud. The next moment he was staring at the cave mouth, for framed in it stood Lulu. He had forgotten to listen for her in talking to Bobo, to be sufficiently on his guard. Had she heard what he had said? She had, he might have known it.

'You took Zan fishing?' he heard her ask.

'Then where is Zan now?'

'I left him. I came back long ago,' Brild gabbled. It was not what he had planned to say, he was aware, but what that had been he could not recall, for he was far too frightened.

'But the water is high. The pools are covered,' now Lulu was answering. Then she turned. To Zip-Zip, no doubt, whom Brild could not see, but who must be behind her. 'So Zan is still sulking? He will not come into the cave?' said Lulu. 'Then we will go

and fetch him,' she actually finished unconcernedly.

'Yes, fetch him,' Brild echoed faintly, his heart beginning to beat smoothly again. If the crisis had come on him swiftly, it had passed swiftly too. The cave entrance was clear once more. Lulu had gone to look for the Zan he believed she would never find.

'E-e-e-h!' sighed Brild happily. Luck was certainly on his side still. Surprisingly, the truth had served him better even than a lie.

(Continued on page 215.)

#### GIRLS' NAMES.

THE solution of the puzzle on page 160 is as follows. The Girls' Names, reading from right to left horizontally and taking each name in turn, are: Rachel, Margaret, Nellie, Mildred, Violet, Janet.

This group was placed upside-down, which it was

hoped would make it more of a puzzle.

## MY DIARY.

Written and Illustrated by RUTH COBB. VII.—PAINTERS' DIARIES.

THE ambition of Benjamin Robert Haydon was to be a great painter, and he believed that he achieved it. He painted colossal pictures of religious and historical subjects. They are forgotten now, although for a time, when he took a large hall for exhibiting a huge picture at which he had worked for several years, people flocked to see it. For the sake of money to live by, he painted portraits which he loathed. What he is remembered for to-day is his journal, which he kept practically all his life. He was born in 1786 and died in 1846. There are twenty-six volumes, parchment bound, ledger-like-looking folios. In them we follow all the ups-anddowns of his life, which were many. He was generally in debt, and sponging on his acquaintances, and was imprisoned several times for owing money. The wolf was always at the door.

He enters in his diary on the 14th January, 1824: 'Completed my yesterday's work, and obliged to sally forth to get money, in consequence of the bullying insolence of a short, wicked-eyed, wrinkled, waddling, gin-drinking, dirty-ruffled landlady, poor old bit of asthmatic humanity! As I was finishing the faun's foot, in she bounced and demanded the four pounds, with the air of an old duchess.

I irritated her by my smile, and turned her out. I sat down quietly and finished my feet.'

Haydon often carried on some heated discussion or quarrel with various public bodies, and the Royal Academy, with whom he was not a favourite. This he enters fully.

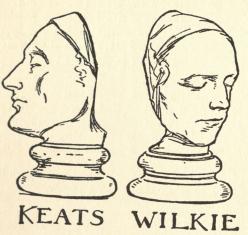
In the diary, as well as the progress of his ambitious pictures, in which he was absorbed, his devotion to his wife and children can be followed. More valuable than the accounts he gives of himself and his household are the vivid descriptions of his friends, most of them well-known artistic and literary people of the day. Sir David Wilkie, another painter, was an early friend. The poet Wordsworth, Keats, and Scott, Lamb, Hazlitt, and Leigh Hunt, were others.

He enters his impression of Keats, on first meeting him. 'About this time I met John Keats at Leigh Hunt's. . . . After a short time I liked him so much that a general invitation on my part followed, and we became extremely intimate. He visited my painting room at all times, and at all times was welcome. He was below the middle size, with a low forehead, an eye that had an inward look, perfectly divine, like a Delphian priestess who saw visions.'

Haydon used his friends as models. 'I now

put Hazlitt's head into my picture. It had a good effect. I then put Keats in the background, and resolved to introduce Wordsworth, bowing in reverence and awe. Wordsworth was highly pleased.'

His custom of taking casts of his friends' faces was sometimes rather dangerous to the



Haydon's casts of two of his friends.

sitters, and they were nearly suffocated. A beautiful cast of the face of Keats is still in existence, and also those of Wordsworth and Wilkie. Haydon certainly had an idea that his diaries might some day be published, for he says: 'I acquired in early life a great love of the journals of others, and Johnson's recommendation to keep them honestly I always bore in mind. I have kept one for thirty-four years. I hope that my journals, if ever they are thought worthy of publication, may give as much pleasure to others, as journals have given a delight to me.'

Another time, 'I write this without a single shilling in the world, with a large picture before me not half done yet, with a soul aspiring, ardent, confident, trusting to God for protection and support. . . . I shall read this again with delight, and others will read it

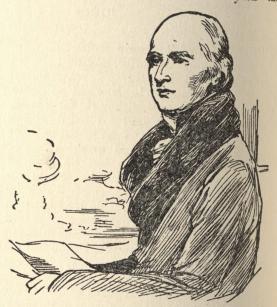
Sometimes the entries were brief, when he was embarked on a big picture like his 'Solomon's Judgment.' 'April 3rd, 1812. My canvas came home for Solomon twelve feet by ten inches by ten feet ten inches—a grand size. God in heaven, grant me strength of body, and vigour of mind, to cover it with excellence.'

7th. Advanced my picture. 12th. At church, an idle day. 13th. Idle. 14th. Got

in some heads: advanced my picture. 17th, Advanced my picture. 18th. At Wilkie's private exhibition. 19th. Neglected mychurch. 21st. Industrious: got in the head of my land. lord's child.' These are typical entries.

Haydon was very keen on a plan for deco. rating the House of Lords with large frescoes. He spent many hours preparing gigantic cartoons, and was bitterly disappointed when his sketches were rejected. '1834. Went and removed my cartoons. Thus ends the cartoon contest. . . . These journals witness under what trials I began them, and how I have been degraded, insulted, harassed. I submit.'

He got over his depression, and wrote when beginning a large picture: 'Alexander the Great was before me, a mutton chop on the coals. I had just written to Wordsworth . . . my chop was cooked to a tee; I ate like a Red Indian. I fell on my knees, and thanked God and bowed my forehead, and touched the ground, and sprung up, my heart beating at the anticipation of greater work and a more terrific struggle. This is B. R. Haydon-the

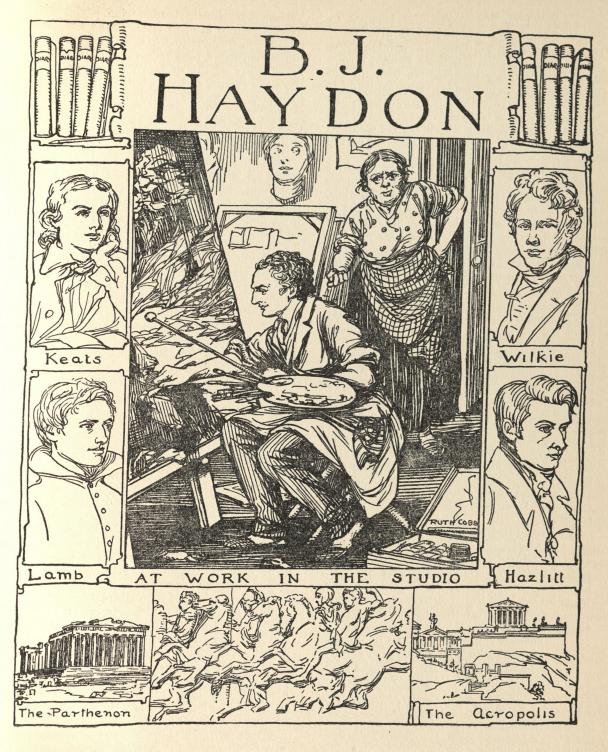


Joseph Farington.

real man-may he live a thousand years! And

here he sneezed-lucky.'

The British Ambassador at Constantinople, at that time, was Lord Elgin, and Greece was a province of the Turkish Empire. He saw with distress how the marvellous sculptures by Phidias, decorating the Acropolis at Athens, were being neglected and destroyed. They



were rescued by his agents, and brought to London. The incident caused a great stir, and there was much difference of opinion about the statues. Haydon saw their beauty, recognising the sublime in art. He took up the defence of the Elgin Marbles vigorously, and it was really due to him that after a parliamentary inquiry they were bought for the Nation, and are now in the British Museum. He obtained leave somehow to make casts of some of the figures.

'16th November, 1815. I hurried away for a plaster man! As I was passing Prince's Street, I passed two inside a shop moulding. I darted in, and said: "Get some sacks of plaster, and a cart, and follow me. I'll put money in your pocket." They obeyed me directly. As we got down at Burlington House I said: "Now, my lads, as soon as this gets wind we shall be stopped, so work away." They took fire, for with Italian quickness they perceived the truth.'

They worked quickly and secretly, but the news got about. 'So we went on up to 8th December: when they alarmed Lord Elgin, and in the midst of our victory down came an order to stop the moulding for the present. It was too late, the cream of the collection was secured.' The casts were afterwards sold to

Russia.

Things became worse and worse with Haydon, and the entries in the diary became more depressed. '16th April, 1846. My situation is now of more extreme peril than even when I began my Solomon thirty-three years ago, involved in debt, and mortified by little sympathy from the public towards my best

pictures.

A disappointed man, he wore himself out in mind and body, and he died tragically in June, 1846, entering in his journal to the last. he had had happiness in his life in his muchloved wife and children, and in those moments when he lay back in his chair, dreaming of the wonders of Greek Art, the beloved marbles from the Parthenon, which he had helped to save for this country; and also in those hours spent with his friends which he describes so vividly.

Quite recently, in 1922, a house and its furniture was to be sold in Wallington, in Surrey. One of the auctioneers, in going through the contents beforehand, discovered in a mahogany case some drawings and an old diary. On examination, they were both found to be by Joseph Farington, in his own day a

well-known Royal Academician. The diary was kept from 1793 to 1821, at the same time as Haydon was writing his, and he is several times mentioned by Farington. They knew a great many of the same people, saw many of the same events, and were both only mediocre painters. There is a certain interest in Farington's water-colours now, for they are exact representations of country places and buildings as they were then; this gives them an historical value.

Farington's Diary is not a human document, in the sense that Haydon's is. He was a perfectly prosperous person, who travelled about the country painting his pictures, and when in town knew all the eminent people that could be known. If he was interesting in himself, he had not the power of showing it in his writing, but he was able to record, in the same faithful way as he painted, the anecdotes he heard at dinner parties, and to describe the people that he met, the stirring events of the French Revolution, and the political events of the day; but all with calmness, and an absence of character.

Dr. Johnson was already dead when the journal was begun. But Farington knew Boswell, and talked with him about his hero. As he was a prominent Academician, many young painters, on arriving in London, came to see Farington, hoping to have his influence in entering the Academy Schools. Among them came Constable, with sketches of the landscapes that were afterwards to make him famous, and Turner, then quite a boy. Farington says: 'I afterwards called on him at his father's, a hair-dresser in Hand Court, Maiden Lane. The apartment, to be sure, small, and ill-calculated for a painter.' When Turner became well known, Farington did not approve of his style of painting, so different from his own, and he constantly criticised Turner's manners, as 'so presumptive and arrogant that they were spoken of with disgust.'

But Farington could admire the Elgin Marbles-'it was the highest quality of art'and was one of the Commission who went to report on them. Some volumes of this diary have already been published, and more are to follow. Farington realised their value in his old age, and left requests for anything still private to be left out when they were printed, although 'the Diaries were written for my amusement and much of them to assist my recollection in matters in which I was

engaged.' How these diaries came to be put on one side and forgotten is not known, and only a lucky chance has brought them once again into the light of day.

#### BIRD CAMEOS.

V.-THE CUCKOO.

YUCKOO—Cuckoo.' What a pleasant sound it was! Spring had really come, and the cold winds would soon be past and the warm sun cheer us. I peered out of window, as the sound was so close, and I tried to catch sight of the visitor. There she was just flying away. I knew what she had come for. To tell me Spring had begun? Yes, but something else too. She had flown a long way across the sea, from the warm country where she had been wintering, in order to lay her eggs and put them in the nests of some other birds, so that she would not have the trouble of hatching and bringing up her own babies. A very bad and peculiar mother, wasn't she?

Well! the day she first visited us she searched round and found a hedge-sparrow's nest, which she thought would suit her purpose. It had several light blue eggs in it, and among them she dropped her own and flew away. Then in due course the little hedge-

sparrow hatched it, all unknowing.

For the first few days the babies all looked alike, but then the young cuckoo grew so much faster, and got so big that he always managed to snatch all the food, and one by one he turned all the other birdies out of the nest, and the mother and father bird had all their time taken up in feeding him. Soon the nest would not hold him, so he hopped out, and I found him, a big over-grown baby, sitting on a low plum-bough crying loudly for food. Day after day for about ten days the cuckoo sat on different boughs, and the patient fosterparents found him food. He was about five times as large as the hedge-sparrows, and they had to crane up to reach his hungry mouth, or get on to a smaller branch above him, and bend down, when it sometimes looked as if the little head would disappear permanently in the great yellow beak. Each day he would fly to a little higher branch or another tree, the would-be parents following, while his cries grew louder and more insistent.

Then the climax came. He grew very bold and ventured right into our house, where he seated himself on a prayer-book on the bookcase, and called peremptorily, showing a bright red lining to his wide-open mouth. Alas! this time he cried in vain; the hedge-sparrows were not brave enough to follow him, so, as hunger pressed, he flew out again, settling on an ash-tree, where they quickly found and appeased him. After this adventure he grew more independent and flew higher, finally disappearing over the wall, with the hedge-sparrows after him. But he had outgrown them, and they soon returned alone, looking pinched and thin, and relieved doubtless, for they seemed as if they had to sing for joy! Their work was done. They had faced and completed their unlooked-for task faithfully and heroically.

#### INSECT MIMICRY.

SOME caterpillars make themselves look like a tiny snail shell sticking to the stalk of a piece of plantain or yarrow, and the large Emerald Moth, which feeds on catkin-bearing trees, imitates a catkin. Many chrysalids are so laid that they look like a leaf on edge. If a cocoon is spun, that is generally enough protection, because it happens to taste nasty. But hungry creatures will eat even nasty-tasting things. So we often find them spun between leaves which fall off and become brown, or hidden under bark or moss, or placed on the bark, where they match it in colour and texture. You know how difficult a butterfly is to see once he has shut up his gaudy wings. It is like playing hunt-the-thimble to find him again. In other parts of the world there are butterflies which, besides being beautiful, have a very disagreeable taste. Their enemies soon discover this, and leave them alone. But the curious thing is, that living side by side with them are butterflies quite pleasant to eat, and these wish to be mistaken for the unpleasant ones, so they have almost the same colourings and markings, and it takes quite a clever person to distinguish between the two.

There is a cousin of the grasshopper, with a pink body, who passes himself off as a flower. The body looks like the centre, and the legs spread out like

petals.

The Stick caterpillars or Loopers are hard to see, because they so exactly resemble the twigs of plants upon which they feed. They only have two pairs of claspers instead of the usual five. They are at the end of the body, and cling to the stem from which the caterpillar stands out like a short twig. It remains perfectly still for hours, and to help it from getting too tired, it spins a tiny thread which joins its head to the twig. Even before they are strong enough to do this, they make themselves like the leaves they are nibbling, by eating a piece out of the edge and then putting themselves into the gap.

MAUD MORIN.

#### FOR A WET DAY.

TO SPLIT A PENNY.

STICK three pins close together in the kitchen table and lay a penny on their heads. Now put a small heap of sulphur in the tent formed by the penny and the pins, and another heap on top of the penny. Set fire to both heaps and keep your fingers off. When the flame has quite gone out, you will find a loose thin plate of copper lying on top of the penny.

#### LISTEN TO BIG BEN.

Take a fairly thick iron poker and tie a piece of tape on it, at the top. Leave long ends and twist these ends round your first fingers. Stop your ears with your finger tips (the same fingers that have the tape round), and let the poker swing, hitting the table, or anything solid, as it swings. You will be surprised to hear a sound just like that of a very big bell.

#### AN ASTONISHING TRICK.

Half fill a cup with warm water and di solve in it as much common salt as ever it will take up. (People who know a lot about cience call this a

'saturated solution.') Get a length of strong linen thread, the sort Mother sews buttons on with, and soak in the salty water. Let it get absolutely dry, then tie it to a ring, a very light one. If you can find one that has come out of a cracker, it's just the thing. Hold the other end with a pair of pincers, and set fire to the string where it is tied to the ring. The thread will burn right away, but it will still hold the ring up.

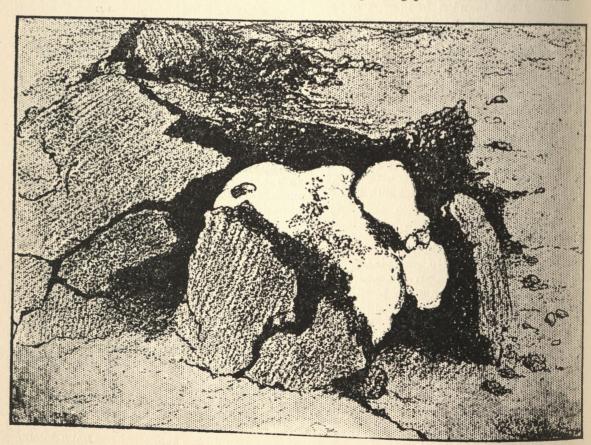
## MAKE A CANDLE THAT YOU CAN'T BLOW OUT.

Put some ordinary salt on a bit of rag and wrap it round a candle end. Light your candle and hold it in ever such a strong wind; it won't go out, but will burn right on to the end.

MARY KERR.

#### WHAT IS THISP

A FEW years ago the people of an English country town were startled to see some concrete being slowly broken and heaved up from underneath. They watched it, and in a very short time a gigantic toadstool had forced its way through the gap. It was over a foot across.



What on Earth is THIS?



WHEN TRICYCLES WERE NEW: WHEN "CHATTERBOX" WAS NEW.

Drawn by William Rainey, R.I.

## WHEN 'CHATTERBOX' WAS YOUNG.

Do you know what a velocipede was? It is quite likely that some people called the old-fashioned tricycle in the picture on page 209 a velocipede—a 'swift-foot,' to put the sham Latin word into English. And in *Chatterbox's* youth even tricyles appeared to be 'swift-foots.' But they would seem slower than snails to-day. We wonder if speed is

really a gain?

The 'velocipede,' or something like it, was probably invented late in the eighteenth century, but it was not till the reign of William IV. that a Scottish blacksmith made it fairly practicable. In 1879 there was a 'dicycle'—a tricycle without a third wheel; and in 1887 came the old 'high' bicycle. From that it is a very quick step to the motor-cycle and the Rolls-Royce. However, Chatterbox will see them all out.

## FLOWERS OF THE SEA.

SEAWEEDS have reason to complain of man's treatment of them, for they have suffered from an age-long libel which is daily repeated. They have been wrongly and contemptuously named. Despised and regarded as proverbially useless by men in far-off ages, the name 'weed' has clung to them. Yet, as we shall see, they are far from useless, and many

of them can lay claim also to beauty.

Rightly named, they are the flowers and trees and vegetables of the sea, as varied and as useful and as wonderfully adapted for life there as trees and flowers for life on land. A rich meadow in June does not bring forth a more charming variety of grasses and flowers than does the rocky ground between low and high tides It has been conjectured that land plants had their origin in seaweeds, that all our infinitely varied flora came up out of the sea. There under the waters is to be sought the beginning of all vegetation. However that may be, when we walk out at low tide by the shore and take slippery risks among these sea gardens, we are, as Professor Thomson says, in the midst of plants that belong to the early ages of the earth's history, some at least of which are older than the hills. If ancientness is any claim to respect, seaweeds have a strong claim.

Seaweeds are certainly an interesting people. There are many families of them, in all probably numbering some hundreds, each with its own peculiar characteristics. Everywhere on sea, as on land, Nature goes in for variety. And as human races have been divided according to colours—the black, the white, the yellow races—

so seaweeds have been divided into green and red and black or brown groups. The colours are related to the seaweeds' zone of dwelling, 'Near the surface, where light is abundant green seaweeds flourish.' Those that live under water need to adapt themselves to the different light conditions beneath the surface. Much light is lost by reflection on the surface, and as what remains passes through the water. it undergoes changes through the absorption of some of its constituent rays. 'Red and vellow rays are gradually absorbed,' says Prof. Geddes, 'and the light as it descends turns from white to green, then to blue, and before it fades out to a Seaweed colours are an pale ultramarine.' adaptation to this weakened light. 'The pigments of brown and red seaweeds act as a screen to absorb the rays which chlorophyll (the green pigment) alone cannot utilise, and thus below the green surface seaweeds come the brown, and below them again the red.

Ferns on land adapt themselves to diminished light, by splitting up leaves into tiny fronds. On every hand Nature has these beautiful adaptations, to enable her children to win

through in the battle of life.

It is these pretty coloured varieties of seaweed—the reds, and the scarlets, that collectors specially prize. Many happy hours have I spent in my boyhood, hunting along the shore, turning over the drift stuff along the tide line, the wind in my hair, and the sea's music in my

ears and my heart.

As Scott, the Antarctic explorer, lay dying along with his comrades in that lonely, blizzard-bound ice-hut in the far South, he wrote among his last words a message for those who would have the charge of his little son. 'If possible,' he said, 'teach him the love of Natural history. It is better than games.' In that love, one might do worse than begin with the collection of seaweeds, mounting them so as to preserve something of their original beauty.

Seaweeds have no proper roots. What seem to be roots, are merely holdfasts, fixing them to the rocks. Of roots in the sense that trees and plants possess, the seaweeds have no need, for they do not feed upon the rocks. They do, however, need anchorage, and very effective anchorage it is that Nature provides them with. How much easier is it often to lift weed and rock together (provided, of course, that the rock is not too large), than to tear them apart! The bladders, so characteristic of many seaweeds, are air pockets, whose purpose is to give

buoyancy. The weeds are thus enabled to float, a very pretty device and another instance of adaptation. Put on the fire, these bladdered seaweeds give volleys of explosions without gunpowder. Seaweeds have quite an elaborate and interesting arrangement for securing the continuance of their race. Spores, which are really seeds, are fertilised by little bodies called zoospores, which, escaping from the tiny seed baskets on the fronds, move about in the water very much as though they were animals. These take the place of pollen in

land plants.

Seaweeds are of vital use in the economy of the ocean. They serve the ocean in much the same way that trees and plants serve the atmosphere. They are great purifiers. The green varieties especially have power of manufacturing and setting free oxygen. This, of course, is of supreme value to marine creatures. A bed of such seaweed must be to these seadwellers not only a city of refuge, a place of sanctuary when hunted by their foes, but also a health resort, a spa, to which they take trips from time to time; where they find new invigoration and health. Seaweeds are also a staple ocean food. They form the ocean meadows, among which sea-dwellers browse. Myriads of tiny creatures make their homes among the seaweeds, finding anchorage on them, just as trees and shrubs house the birds.

Man also puts seaweed to manifold use. When my home was by the sea, in Scotland, the farmers used to gather tons of shoreweed for manuring their fields, where Nature turned seaweed into early potatoes. Most of the alkali used in soap-making and in glass-making used to be produced from kelp, which was the ashes of burnt seaweed. There is, indeed, an old legend which puts down the invention of glass to some shipwrecked sailors, who, being cast ashore on some lonely island, lit a fire in the sand, added dry seaweed as fuel, and discovered under the ashes 'glass.' Iodine, the little tube of which was the soldiers' greatest boon, also used to come largely from seaweed.

In some parts of the world, seaweed is regularly harvested. A United States Consular Commerce Report gave details of such harvesting in Holland. The weed is mown down with scythes from June to August. The mowers work at low tide, standing in the water but clothed in water-tight garments. 'The product is spread out on fields to wither in the sun. When it becomes black it is placed in ditches to soak in water. The fresher the water, the blacker the weed turns, and the blacker it is the higher becomes its price. After a few days in the ditch the weed is again spread on the field, and when thoroughly dry is taken into warehouses, where it is made up into bales of about one hundred pounds each ready for market. . . . The fully prepared seaweed is chiefly used as filling for mattresses.'

It is also stated that a fine quality of gelatine is produced from seaweed, which is probably the reason why some jam-manufacturers are apparently now using seaweed. That, as a correspondent in one of our papers suggested, was the most hopeful view, though he facetiously offered one alternative suggestion, that it may have been used for plum and apple, 'the seaweed representing the plum skins, as mignonette seeds are said sometimes to supply the feature by which raspberry jam is to be

recognised.'

Some seaweeds are quite edible, and according to one authority much higher in nutritive value than green vegetables. In some parts of the land, seaweeds, under the name of laver, are boiled, and eaten as a vegetable. Laver, we are told, is an ideal adjunct to roast mutton. 'Let it soak in two fresh waters, about an hour in each, to get rid of the salt, then put it in a saucepan with hot water, and simmer until quite soft and mucilaginous; dress it as spinach, with butter or with a little stock, and a dash of lemon juice; serve hot.' Dulse is another edible seaweed, used in old days as a food in Scotland. In Barrie's A Window in Thrums, there is a recipe for making this dish from the sea. 'Dulse is cooked by twisting it round the tongs when they are fired to a red heat, and the house is soon heavy with the smell of burning seaweed.' Thus cooked, we are told, it has an oyster-like flavour.

It looks as though there may be big possibilities in the sea. Along with the Sahara and other deserts, it may yet become a very granary of food for man and beast. There are, at any rate, new worlds to conquer here. What a field for the genius of a Luther Burbank, the famous American fruit-breeder! We might, indeed, profitably employ several Burbanks, if we could find them, to conquer the world of the sea as a food supply! I rather look forward to the day when I shall be able to ask my guests to have a little 'improved F. C. HOGGARTH.

seaweed '!

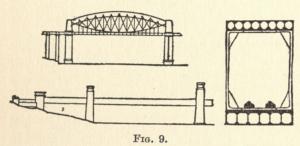
## BRIDGES.

By P. M. BAKER, B.Sc., M.B.E., A.M.I.E.E., A.M.I.Mech.E.

Illustrated by BERNARD WAY.

(Continued from page 198.)

THE suspension bridge has the great advantage that it is fairly simple to design and to construct. It can be placed across a deep, wide river more readily than other types and needs comparatively little in the way of scaffolding



Top Left: One span of Saltash Bridge; the central space is 455 feet across. Bottom Left: Half of the Menai Straits Britannia Tubular Bridge (left hand space, 230 feet, right hand, 468 feet). Right: Section of one tube of Britannia Bridge (on much larger scale).

or temporary supports when it is being erected, and so, on account of its simplicity, it has been much used for road traffic.

It is not, however, well adapted for railway work, for if we consider the difference between ordinary road traffic and that of a railway, we shall realise that a train, particularly the engine, forms a load which may be concentrated in one part of the bridge, and, as the chain is flexible, it causes very considerable deflection just under the point at which it happens to be at the moment. The engineers' method of expressing this is to say that

although a suspension bridge may be quite strong it is not stiff, and a railway bridge needs stiffness. When railways cross suspension bridges, special girders or other means have to be provided to secure stiffness. This absence of stiffness can be easily seen by any one who has an opportunity of walking or driving across a suspension bridge. Londoners can observe this effect very well indeed on the small suspension bridge across the pool in St. James's Park as two or three people, walking briskly across the bridge, will set up noticeable oscillations in it.

Every bridge tends to oscillate at some quite definite rate (just as the pendulum of a clock has a definite rate of swing). Bridge oscillations can be more easily noticed in suspension bridges than others on account of their lack of stiffness, and the oscillations may become dangerous if the impulses, due to the paces of the foot passengers, or other causes, happen to coincide with the particular speed of oscillation to which the bridge is liable. It is for this reason that soldiers are instructed to 'break step' when marching across a bridge; the steady tramp of marching in step might 'harmonise' with the period of swing of the bridge and cause dangerous oscillations.

Amongst the best-known suspension bridges are the one which formerly crossed the Niagara River near the Falls and the Clifton Suspension Bridge over the Avon Gorge at Bristol (see page 197). The second of these originally spanned the Thames where Charing Cross railway bridge now stands, and the towers

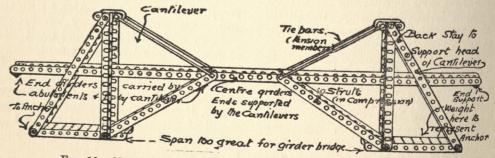


Fig. 10.—Meccano Model to show the principle of the Cantilever Bridge.

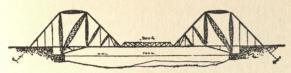


Fig. 11.—Outline Diagram of Sukkar Bridge.

(One of the great members rather resembles
the jib of a crane in outline!)

which carried its chains can now still be seen there forming part of the railway bridge. When no longer required in London it was re-erected at Clifton, where it still spans the wonderful gorge of the river. The railway which was formerly carried by the Niagara Suspension Bridge now crosses a steel arch type of structure.

If you keep your eyes open while on your holidays you may see suspension bridges in various parts of the country—especially, per-

haps, in Scotland.

An important point to note is that a suspension bridge is not 'self-contained.' It depends upon having its chains or cables secured to anchors—usually masses of masonry or plates fixed in the earth—for its ability to support its own weight and the load which crosses it. In this respect it differs from the bridges which we have already described. Changes of temperature play an important part in the life of the bridge. The chains are longer on a hot than a cold day, and the bridge rises and falls correspondingly. As the main span of the chain between the towers is longer than that which secures the ends to the anchors, arrangements have to be made for it to slide freely on rollers or pulleys over the tops of the towers, which these day-by-day changes would otherwise damage, and these you can see in Clifton Bridge.

Cantilever Bridges.—This problem of building strong and stiff bridges across great spans of water was a source of considerable worry to our early railway engineers. The great engineer, Brunel, who, amongst other important work, constructed the G.W.R., built a bridge at Saltash combining an arched tube and suspension chains, with the idea that the load on the tube would tend to push the towers apart while the chains would pull them together, and so the two would balance (see fig. 9). Robert Stephenson built his great bridge over the Menai Straits in the form of a great box, or tube, of rectangular section. This, as will be

seen in fig. 9, is really a plate girder, for it has a top and a bottom member joined by webs—in this case two. It is a fine piece of work, dating back to the early days of the railway, and still good, but we should not use this form now, as it would be too costly. What other methods can we adopt?

When a bridge of great span is required nowadays the engineer usually adopts what is called the 'cantilever' type. He builds two cantilevers or brackets, one at each end of the span, so as to carry the bridge out some considerable distance from each bank, and then he connects their ends with some form of girder

bridge carried by the brackets.

Fig. 10 is a diagram showing how you may make a model with Meccano parts to see how this arrangement works. You will find if you make up the model that the cantilevers have to be securely fixed in some way or your bridge will collapse, and you might also note that the Meccano bars shown in the diagram are struts, i.e., they exert a pull on the central span. Now if we examine a few cantilever bridges we shall find that although they have many more members than our simple model, they really act in the same way.



Fig. 12.

The first illustration of one of these bridges is that at Sukkur, crossing a deep gorge through which the Indus flows. I have chosen it because it was one of the earliest great cantilever bridges in the world. From the outline given in fig. 11 you will be able to see how far it resembles your model, while the perspective view in fig. 12 will indicate what the actual bridge looks like.

(Continued on page 228.)

## THE CHICK THAT WANTED TO SWIM.

IULLO, Smut! what's the matter?' asked Ben, the sheep-dog, trotting out of the barn, and seeing the little black chick dismally pecking about in the scattered hay near one of the ricks.

'I'm tired of being a chicken!' exclaimed

'Tired of being a chicken!' repeated Ben in 'Why, what would you like to be surprise. instead?'

Smut didn't reply, but just went on scratching about in the hay with his tiny yellow claw.

'You won't find any nice fat worms there, Smut,' remarked Ben. 'Why don't you go and play with all the other chickens?'

Because chickens are such silly things-

they can't do anything,' replied Smut.

'Well, nobody wants them to do anything

until they're grown up,' said Ben.

'But the ducklings aren't grown up, and they can swim. Listen-here they come.

Across the rickyard came Mother Dilly, with her noisy brood waddling after her. 'Now, children,' she quacked, 'you're going to have a diving lesson to-day, so make haste.

'I'm going to learn to swim, too!' exclaimed Smut, as the ducklings swept past in a fluttering

vellow crowd.

'Come back, you foolish chick, you'll be drowned,' Ben called after him; but Smut was already racing to the pond, and did not hear.

'Where are you going, Smut?' asked Furrytail, the bunnie, who had just popped out of his burrow, and was twirling his whiskers in the sunshine, as the chick scrambled through the hedge into the field where the pond was.

'Going to learn how to swim,' gasped Smut,

breathlessly.

'You silly thing, you'll be drowned,' cried

'Come back!' Furrytail.

Smut took no notice of the warning, but raced on after Mother Dilly, and was soon standing at the edge of the pond with all the ducklings.

'Now, children, watch me,' quacked Mother Dilly; and to Smut's amazement, she paddled out to the centre of the pond, and then stood on her head, like a ridiculous little acrobat.

'What a stupid thing to do!' said the chick to himself. 'If she wanted to stand on her head, why didn't she do it here on the bank where we could all see her?'

But Mother Dilly, who had now turned the right way up again, was urging her brood to

come into the water; so squeaking joyously. the ducklings jostled each other down the bank.

and into the pond.

For a moment Smut hesitated, but the sight of the ducklings swimming about so happily was too much for his envious little heart to resist; so, spreading his tiny, sooty wings, he also fluttered down the bank and fell into the water with a soft plop.

But what was the matter? Surely something was amiss? Instead of gently rocking about on the surface like all the others were doing, Smut found the water closing over his

'Mother Dilly-help me! I can't swim!'

he cried in a fright.

But Mother Dilly was too busy teaching her ducklings how to stand on their little golden heads, and fish for their dinner in the weeds at the bottom, to hear Smut's frantic call.

'Oh, dear-whatever will the tadpoles say when I get to the bottom?' wailed Smut, as he felt himself sinking lower and lower; but just as he was hoping they would not be very angry at his unexpected arrival in their midst, he heard a loud bark; then, 'Hold on, Smut!' cried a voice, and Ben plunged into the pond. With a big struggle, the chick managed to scramble on to the dog's back, and was soon safely landed on the bank.

'You didn't seem to be getting on very well with that swimming lesson, Smut,' remarked Ben, when they were in the rickyard.

'No, Ben, it wasn't quite so easy as I thought,' confessed Smut meekly, fluttering his tiny black wings to shake the water off them.

Well, you must have another try ... suppose you go down to the pond again to-morrow,

suggested Ben, slyly.

'Oh, no, I don't want to go near that dreadful pond ever again!' protested Smut in a fright. 'I'd much rather be a chicken than a duckling, after all.'

'But chickens are such silly things, you know,'

Ben teased him.

Smut pretended not to hear, and at this moment Mother Buff came bustling along.

'Oh, Smut! wherever have you been?' she clucked excitedly. 'I was afraid you had followed that stupid Mother Dilly, who has no more sense than to teach her children to stand on their ridiculous little heads in the pond. 'Tis such bad manners to eat one's dinner in that way.' She ruffled her feathers in disdain, then, daintily pecking at Ben's dish of scraps, continued, 'See, this is the polite way to eat your dinner.'

'But that isn't your dinner, it's mine, Mother

Buff,' protested Ben.

So Mother Buff brought her lesson in manners to an abrupt conclusion, and with a proud 'Cluck, cluck!' slowly stalked away, followed by the truant Smut.

LEWIS DUTTON.

## FIELD AND BY-PATH NAMES.

THOUGH seldom used nowadays, all our fields, green lanes and bridle paths possess some charming old-world name bespeaking their origin, which one is only privileged to hear in sequestered nooks. Within a stone's throw of my cottage is Heron's Mead, where the long-legged bird may often be seen gazing—as did many generations of his clan—into the river's depth. And hard by is Badger Copse, where Master Brock once pursued his even way; Foxhill, no longer patronised by Reynard; the Warren, now a recreation ground; and Molehills.

On the other side of the Stour is Perry Copse, bringing recollections of that pear wine for which our old country inns were once famous; the Priory Close, where jovial monks fished in the 'Ponds'

for Friday's meal; and, curiously enough, not far away is Hangman's Dyke, sinister and suggestive,

leading to Highwayman's Corner.

The fairies have kept their playgrounds at Pook Hyde, Mab's Hill, Cobb's Close, Hob's Hawth, Elfenden and Titsey—many fields in Worcestershire having such delightful names. In the New Forest there are 'Shades' where on the most broiling summer's day the wanderer may find shelter from the rays of the sun, and find, too, Dove Cot Close—a survival of the time when, centuries ago, every farm worthy of the name owned a dove-cote housing hundreds of pigeons that hospitality might never be sought in vain, though no butchers' carts trundled along the roads, or lorries laden with imported meat.

In various parts of Britain a path running between two roads or even two hedges is often known as a 'twitten,' presumably a betwixt or between way, just as the Nye is a corruption of the 'near' way. Bridle paths abound in Essex; in Dorset they are halter paths, but with the same meaning—a narrow lane where horsemen must perforce lead their mounts; while in Surrey paths running through wooded glades are still called 'rue,' having served as streets in Norman times. And in Kent they have Five Wents and Four Wents—cross roads.

## THE DIM RED DAWN.

By Mrs. HOBART HAMPDEN, Author of 'Louisa,' The Hidden City,' Princess Soma,' &c.

Illustrated by E. S. Farmer.

(Continued from page 203.)

CHAPTER XXIV. WHO SCREAMS?

If Brild had not been able to see Zip-Zip, she on the other hand had been watching him closely. If his heart had been beating fast, so had hers. What he had done in her absence she had not as yet even tried to guess. She would not have been surprised to find, on her return to the cave, Zan sitting with Brild and Bobo by the fire. Zan's empty place, Brild's confusion—she hardly knew what to think of either. Something Brild had done, that was evident, and he had sent Lulu to the shore. Had he disposed of Zan within the cave? Completely puzzled, Zip-Zip followed Lulu, who went ahead of her in not the best of tempers.

Lulu had not enjoyed her outing greatly; it had been difficult to prolong it. The forest folk had not appeared. She had found Zip-Zip fidgety while Hrump ate and ate, 'swelling visibly.' But he at least had been perfectly happy until it had occurred to Lulu that both she and Zip-Zip might ride on his back. If

the forest people were watching they would be impressed, she had thought, and Hrump's education would be carried a step further. She had hoisted herself up first, pulled Zip-Zip after her, and had used her heels to make Hrump turn to right and left ere she urged him across the plain homewards once more. Too gorged to resist, chewing at the last branch he had torn down, homewards Hrump had plodded, and then Lulu had felt most strongly she should have had a larger audience.

She had missed Zan in consequence. She had thought more than once it would be amusing if he were riding on Hrump too, bursting with pride which he would have done his best to hide, sitting with crossed arms to show how well he could balance. Long before Lulu reached the cave she had come to the conclusion it was time that Zan was tagging after her once more. Down the ravine, therefore, she went in some haste. And Zip-Zip, loitering a little, uneasy and nervous, came out on to the sandy strip, that was all the water

when it came nearest left uncovered, to find Lulu looking from right to left at an empty shore.

'Is Zan not here?' Zip-Zip asked hurriedly. She had to ask—something was forcing her to do it. Lulu did not answer until she had scanned the cliff face, up which Zan sometimes climbed in search of eggs. But he was not looking for eggs now.

'Perhaps he ran up on to the plain?'

Zip-Zip felt impelled to suggest.

'We should have seen him from Hrump's back. We were high above all the cover on the plain,' Lulu replied curtly at that. And to the water's edge she ran next, to stand, knee deep, in the swirling foam. If Zan was not on the shore nor climbing the cliffs, why, then, he must be swimming still, she was telling herself. But return soon he must and should. The waves were high. The wind across the sea was cold and strong, too strong for so young a swimmer. It set Zip-Zip, older, shivering, at which Lulu suddenly felt annoyed. Anxious, though she would not own it, she was impatient, and Zip-Zip's pointless questions had not been soothing.

'Go back to the fire,' said Lulu shortly. 'I shall wait here for Zan.' But she had not expected Zip-Zip would act on the suggestion at once, and dart instantly towards the cave. Up the ravine Zip-Zip raced, indeed, for the suspense had proved too much for her. She must know definitely what had happened, she felt, and immediately. She had not to seek Brild, for he met her on the threshold. He,

too, could contain himself no longer.

'I took Zan to the ledge. I left him there. I hit him on the head,' Brild boasted breath-

lessly.

He had meant to dwell on each detail, but he had been in too great a hurry. He had said enough, however. He was satisfied. He could see he had impressed Zip-Zip profoundly. And what need was there to tell her he had meant to break Zan's leg, not his head. That he had aimed hurriedly, because he dared not linger. That he had ran as soon as Zan had fallen in a heap, lest the turtle should be coming, though he had not seen it. On the skill with which he had drawn Zan into his net he could dwell at leisure later, when it came to settling.

'Zan on the ledge? You went there?' Zip-Zip breathed, practically speechless for the moment. Of this, indeed, she had not dreamt. That of all ends for Zan it was the most effective, there was no doubt. But, profoundly

afraid of the turtle as she herself was, it had never occurred to her that Brild would venture near its haunts. She could hardly believe that he had done so. Yet, if he had not, where was Zan?

'Wah!' said Zip-Zip. So deep was her distrust of Brild, however, that she could not let herself feel as relieved as she might have been otherwise. Already she was searching for the loopholes Brild felt sure he had blocked.

'If the turtle does not come,' Zip-Zip began to his annoyance, 'Lulu will find Zan lying on the ledge when the water goes.' But to this Brild had an answer that seemed to him most effective, and that proved also how thoughtful he could be, which would help to establish his new ascendancy.

'I did not hit too hard,' he insisted reassuringly. 'I thought the turtle likes live

meat, not dead.'

'Live meat?' Zip-Zip echoed, startled. Up to this point she had hardly thought of Zan himself. She had certainly not pictured him alive. Waiting as her father had waited? And now Brild had drawn the picture for her. She backed away from him a little. Involuntarily, her hands went up to her ears. Her old terror suddenly had her in its grip; an overwhelming terror as before.

'But he might scream?' Brild heard her murmur. Watching her, he began to be a

little afraid himself.

'But Lulu cannot reach him,' he recalled. Of course he had remembered this too at the time, but Zip-Zip was confusing him with her foolishness. He wished a little he had held his tongue, but it was time she behaved more reasonably again. Now, he did not like the look of her—her eyes were very queer and wild.

'Lulu cannot reach him if he does scream,' Brild repeated. 'We will all listen. That

will be all.'

And as he spoke, up the ravine there came the tap-tap-tap of feet that travelled quickly. Into the cave raced Lulu and across it, to snatch up Zend's spear that still stood by all that was left of the clay pig. And in a flash she wheeled to run again.

'The little fool!' cried Lulu. 'The little fool. I heard him.' Poised on one foot she stood a second, and in that second Zip-Zip shrieked high and shrill. She could not help it. The cry that could not reach the cave it

seemed she heard.

'I will not listen,' she wailed. 'I will not listen,' (Continued on page 218.)



" Traitor, keep back!' she cried. 'Don't dare to touch me!"

# THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' The Hidden City,' Princess Ooma,' &c. Illustrated by E. S. FARMER.

(Continued from page 216.)

CHAPTER XXV. THE SHORTER WAY.

'VOU will not listen?' Lulu echoed, startled. Without a clue as yet to Zip-Zip's outburst, she was completely at a loss. So far, she was not even suspicious of Brild nor of the tale he had told her. That Brild, the idle, should tire of fishing was natural enough. That Zan should persist and, sulky, pay no attention to the fact that the water was coming towards him was natural too. It was not until Brild, in a panic, pressed his hand over Zip-Zip's mouth to check the fuller confession he feared might be coming that Lulu grew more alert.
'Be quiet!' Be quiet!' she heard Brild

wail. Then as Zip-Zip, to free herself, bit his thumb, he too lost the remnants of his self-

control.

You helped!' he shrieked.

'She helped you?' said Lulu slowly. Zip-Zip and Brild allied in some way against herself and Zan? It seemed incredible, yet she could not but think it true as she looked at them. At Zip-Zip, cowering; at Brild, dribbling with fright, pulling now ineffectively at Zip-Zip's shoulder. What had they done? But there was no time to question them, to wrench the truth from them. Lulu stood back a pace, and swept Zend's spear-point in a circle round her so that she was clear of the two, aloof.

'Traitor, keep back!' she cried, as Zip-Zip tried to crawl nearer to her. 'Don't dare to touch me! Don't delay me. I have done with

you.'

'But where are you going?' Bobo interposed suddenly. He had been watching, interested, his carving neglected, the necklace dangling from his hand. And Zip-Zip, gathering her scattered wits together, ran to him. She was a little afraid of Bobo usually, but now she was too deeply stirred for that, as she thought how far Lulu might choose to venture.

'She cannot get there. Perhaps she will be drowned. Make her believe it,' Zip-Zip

You hear?' said Bobo. But Lulu paid no attention to either of them. She knew too well the strength of the current.

tested it more than once to amuse herself, and when it was running, had never been able to round the curve even that led to the ledge But she could test it again, and she would Zan had called to her, and she was going to him. And now she was outside the cave to find Hrump, who had just arrived, blocking her way. He had come, probably hoping that she would take him to the forest once more; but to Lulu, at the moment, he seemed her one ally. His strength, which was so much greater than her own, might avail, she told herself joyfully.

'You shall take me, Hrump,' she crooned. 'Come.' And as, in response, Hrump pounded after her, Bobo hurriedly dropped the necklace

and rose to his feet.

'If she is going, riding on Hrump, I must go too,' he grumbled. He could not afford, he felt, to miss a sight that might possibly prove so interesting, though he infinitely preferred the comfort of the cave to the perilous journey Lulu proposed to undertake. Grumbling still, he still went after her, for under the circumstances, she drew him irresistibly as she had drawn him before. If Hrump indeed reached the ledge? If he fought with the turtle? At the water's edge Bobo caught up with Lulu, while from above by this time Zip-Zip and Brild were watching, both silent though for different reasons.

'She will do it. She will get there,' Brild was thinking, terrified. After all, he had proved no match for Lulu. Dumbfounded, he could only watch her, completely at the end of

his resources.

'She will never do it,' Zip-Zip was thinking sombrely. That even Hrump could not with stand the current she was certain. 'And she

will never forgive me.'

No, Lulu would not forgive if Zan were not rescued. There had been something too final in her tone to admit of doubt. That Lula herself was probably not now in danger had brought a momentary relief.

But what have I done?' Zip-Zip asked her. What indeed? Better a hundred Zans than this. Though she stared at the three st the water's edge, she hardly saw them. She looked instead resolutely into the past, that had no horror now that equalled the present. And something there might be in it that would help her. Something that had escaped her hitherto, she thought, desperately. She shut her eyes and clenched her hands. She hardly heard when Brild began to whisper presently, too scared to talk aloud.

(Continued on page 226.)

### 'DICKY.'

H, Mother, one of the little chicks is having such a rough time of it with his brothers and sisters!' cried Edna breathlessly, as she ran into the kitchen to her mother and her brother

'What are they doing?'

'They're all chasing it and pecking at it until it bleeds! Come and see!'

Edna ran back to the poultry-house, followed by

her mother and brother.

Mother saw at once that Edna was right. One chick had begun to lose the feathers from its back; the others objected to the bare patch of body, and all joined in the chase.

Opening the door Mother let the hen out, and of course the chicks followed her. All were allowed to pass except the injured chick, which Mother caught up and carried into the kitchen.

The sore back was bathed and powdered. 'Won't they do it again now?'

'They would if we gave them the chance, but I don't in end to put him back until the place is healed. We will keep him in the house garden, and bring him in at night so that he will keep

A strong wire fence divided the garden from the farm, and the chick was allowed to run free when the children were in the garden to protect him

from cats.

That night Edna helped her mother to make him a cosy bed; it was made like a small tea-cosy and placed in a box, and then the chick was tucked inside.

We must put it where puss can't reach it,' said

'Oh, she never comes up to my room. May I have it on the chair by the side of my bed?' asked Edna eagerly.

'Yes, if you like.'

So at bed-time Dicky—as Edna had already named the bird-was carried up to Edna's room and placed by the side of her bed.

Several times he called: 'Cheep, cheep, cheep,' and Edna answered him. After that he was quiet

There was just one thing that seemed to worry Dicky: that was the clucking of hens. When he heard any of them clucking to their babies, he ran

about trying to get to them.

But he learned to answer to another kind of call. Edna would say: 'Come along, Dicky, come for a walk,' and Dicky ran with her as she walked up and down the garden path. When she stood still he perched on one or other of her feet, looking up at her trustingly.

'I know what it is,' said George, as they sat in the garden on low stools, with Dicky nestling under Edna's skirt. 'He takes you for the hen.'

'I expect he does. You see my shoes and stockings are the same colour. Do you know, it makes me feel so nice when I see how he trusts me!'

'Oh, I dare say he'd get on just as well without you. Let's go in and see what he will do-we can

peep out of the window.'

The two children ran into the house, and Dicky woke up. When he found himself alone, he began to peck contentedly at the gravel, but soon a cat jumped over the wall. Then ran Dicky to the kitchen door calling out in fear. Edna opened the door, and he at once perched upon her foot.

'There! You see I was right! He does trust

me!' said Edna.

George had to own that Edna was right.

The chick's back soon healed and Mother said he must go back to the mother-bird. Edna tucked him in under the hen as soon as she had taken her babies to bed, and in the morning he was running about with them as though he had never left them.

At first Edna felt a little jealous when he answered to his mother's call, thinking he would forget her; but he did not forget, and when the other young birds were sent to market Dicky remained at home as Edna's pet.

#### THE DEAD SEA.

THE water of the Dead Sea is so impregnated with salt as to be very buoyant, and therefore swimming in this inland sea is found to be very refreshing sport. It is necessary, however, for swimmers to be very careful not to let any water touch the eye. The amount of salt contained in it is very great, far exceeding the proportion in any other sea or ocean. For instance, in a ton of water taken from the Caspian Sea there are eleven pounds of salt; in a ton of water taken from the Atlantic Ocean there are thirty-one pounds; and a ton from the Mediterranean contains eighty-five pounds. A ton of water from the Dead Sea far exceeds this, for it contains no less than one hundred and eighty-seven pounds. The shores of the Dead Sea are generally believed to be entirely arid regions, but some plains are found which are so fe tile that as soon as one crop is gathered another can be planted.

## 'THIS LITTLE WORLD.'

SOME PORTRAITS OF GREAT BRITAIN.

Drawn by J. A. SYMINGTON.

II.-YORKSHIRE: THE WEST RIDING.

(Continued from page 151.)

A T BARWICK-IN-ELMET (a little way beyond Leeds—population 3457) there is plenty of history. Here a maypole was set up, taken down at Easter, and re-erected at Whitsun, by very ancient custom. There are the earth-covered fragments of a Norman castle, and a few remains of Saxon crosses.

Batley (population 36,151) is famous for its manufactures of cloth (especially for the Army) and shoddy (an inferior kind of cloth); it also makes machinery, and there are coal mines near.

BINGLEY (population 18,949) is another town interested in cloth. In the church there is a curious hollow stone bearing an inscription in runic characters. Runics were the form of letters used in very old Scandinavian and Saxon writings. This inscription is probably of the eighth century A.D., and celebrates the visit of a Saxon king.

BIRSTALL (population 7186) is likewise a cloth town. It has two literary associations—Oakwell Hall, about a mile away, is the 'Field Hall' of Charlotte Bronte's novel, Shirley; and Joseph Priestley, the famous chemist, was born here in 1733. He was the discoverer of oxygen, and wrote many scientific treatise. He also indulged in religious and political controversy. He died in America in 1804.

Bolton Priory (often called Bolton Abbey), in Bolton-in-Craven, stands on a beautiful site by the River Wharfe. It is a splendid ruin, partly restored. It was founded at Embsay, near Skipton, in 1120-21, by Thurston, Archbishop of York. A new building was begun at Bolton in 1151. It was never completed: the last prior left the West Tower (begun in 1520) unfinished. The nave, as restored, is now used as the parish church.

Boroughbridge (population 842) is a market town with some hold on history. It contains some of the oldest Stone Age monuments in the county—three huge stones (megaliths), known as the Devil's Arrows. There was formerly a fourth, but it was used as a bridge,

and seems to have been lost. There is also in the district a Roman pavement and part of a Roman wall: while in 1322 the forces of



Edward II. defeated the rebel Earls of Lancaster and Hereford at that place. Hereford was killed and Lancaster captured.

Boston Spa (population 1325) have salt springs, which have made it a prosperous little health resort.

Bradfield (population 1433) is notorious for a terrible break of a great reservoir in 1864. Over two hundred and fifty lives were lost in this disaster. There are some ancient earthworks (probably Norman) near by.

Bradford (population 288,458) is one of the most important cities in Yorkshire, for it employs more people in the wool, mohair, alpaca, and worsted industry than any other place, and it is the chief centre of British dye

making. Here are the famous Saltaire Mills, founded by Sir Titus Salt. The principal buildings are for the most part modern, though the church is of the fifteenth century and has a little pre-Norman work. The neighbour-

hood was the scene of much fighting during the Civil Wars. At Thornton, on the outskirts, were born Charlotte Bronte and her sisters. The city is a Bishop's seat.

(Continued on page 280.)



### THE CHERRY-COLOURED CAT.

LONG before Mr. Barnum became a famous showman a lady came to see him, and asked him if he would buy a cherry-coloured cat.

'A cherry-coloured cat?' repeated Mr. Barnum, surprised. 'Yes, I would; I'll give you a thousand dollars for it if you have one to sell.'

'Here it is,' answered the lady, and out of the

basket she lifted a black cat!

'Hullo!' remarked the showman, 'what does that mean?'

'Well, Mr. Barnum,' said his visitor smiling, there are black cherries as well as red ones, you

know.'

The showman laughed; and he thought it such a good joke that he bought the cat, though perhaps not for a thousand dollars. Puss was exhibited in the menagerie; and lots of people paid to see the wonderful cherry-coloured cat, only to find that they had been finely hoaxed, and that it was just an ordinary black one after all.

#### BIRD CAMEOS.

VI.-THE OWLS.

THE dawn was just breaking, and I was listening to the birds' sunrise songs, when suddenly they were changed to loud and terrified danger calls. I looked out of window to see the cause, and there on the lawn was a large owl. In a circle round it were half-adozen blackbirds and thrushes, each trying, it seemed, to call loudest. But the owl was quite imperturbed and went on eating-never rousing until every now and then one of the birds would come near enough for her almost to spring on it, when she would give a sort of snarl and flap her great wings. At her pleasure she rose noiselessly and flew to a bough of the ash-tree opposite my window, where she sat looking slowly round. She had a most wonderful neck, for she could turn her head almost completely round and look straight at you without moving her body at all. It was almost uncanny. Meanwhile the blackbirds had flown on to branches near her, never ceasing their angry clamour.

Every now and then she would swoop down on to the lawn for a few minutes, and then back again on to the tree. Then she gave a low melodious hoot, at which the other birds became more persistent in their disapproval. It was answered by another, and her mate appeared and hovered near her until, as the light grew brighter, they disappeared among the trees, followed by the other birds. When

I saw them next the sun was high in the sky and they were sleeping soundly, right up near the top of a chestnut tree. A storm came on and the branches rocked to and fro—their foothold was sure—every moment I thought they would be blown down, but they never descended till the moon was a silver semi-circle, and then they climbed down to a lower branch and blinked, puffed out and cleaned their feathers, and finally flew out to begin their day in the darkness.

For six days the owls came regularly to roost in the chestnut tree. Then, as suddenly as they had arrived, they disappeared Why do you think it was? Because, when they chose the tree it was in full blossom, and the beautiful bunches of flowers from a distance, so like their soft, speckled breasts, hid them completely. When the flowers fell, they knew they must find a safer retreat.

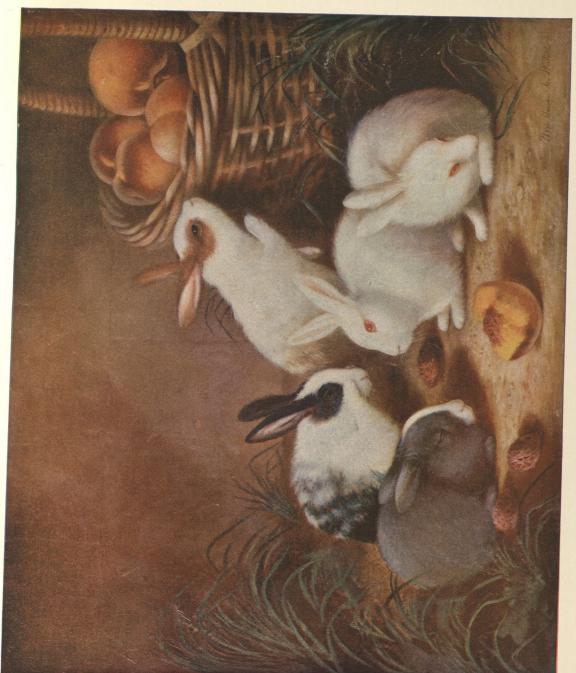
6. L. D.

#### RABBITS AS PETS.

THERE are a number of different varieties of rabbits, but the two kinds known as the Belgian hare and the Flemish giant are the most popular and in many respects make the best pets. The Belgian hare has rich brownished fur, and in appearance it resembles our ordinary wild hare, hence its name. The Flemish giant is a bigger rabbit when fully grown, and less alert-looking than the Belgian hare, while in colour it is a dark steel-grey.

The fact that rabbits can be kept at a very small cost should be sufficient to recommend them as pets. They will eat many different kinds of foods, most of which can be provided out of ordinary household scraps and waste products from the garden. Those who live in large towns will not be able to gather wild plants for their rabbits, but the local greengrocer will probably be only too pleased to give away his waste green-stuff, such as the large outer leaves of cabbages, cauliflowers, and lettuce.

The following is a list of the chief foods that may be given to rabbits: Wild plants, such as dandelion, groundsel, coltsfoot, shepherd's purse, plantains, &c.; the leaves and shoots of various trees, such as sycamore, oak, elm, hawthorn, plum, apple, and blackberry (but not evergreens, as most of them are poisonous); waste products from the garden, including grass, leaves of nasturtiums and many other



LIGHT REFRESHMENTS.

plants, carrot tops, turnip tops, radish tops, hada, pea pods, strawberry leaves and many other kinds of green-

During the winter months, when green-stuff a less plentiful and may be very difficult to the peelings of such roots as potatoes, turnips, parsnips, swedes and mangels, the roots themselves, all form quite good Most rabbits will enjoy many houseand scraps, such as stale pieces of bread and boiled potatoes, &c., especially day are given in the form of a mash after makes been mixed with a little bran and milk and water. Only a multiple of this mash should be made at that the rabbits can eat it up while a swarm, for if left to get cold they will probably refuse to touch it.

Most of the foods mentioned above can be and for nothing, so that all it will be necessary the bar are the various dry foods. These inabude casts, bran, hay and straw, and are quite In fact, the straw can usually be had for modbing from a local grocer or other trades-

Rabbits should be given three meals a day, the first about eight or nine in the morning, as severed at midday, and the third about six we seem in the evening. It does not greatly what times are decided on, proand that they are rigidly adhered to. Irregular for any animal, and scraps of found abould never be given at odd times.

The following is a sample menu for a day, and the principal thing is to vary the food as much as possible: Morning, a little hay or plenty of green food; midday, green fund, roots, potato peelings, &c.; evening, dry bread or similar scraps, hay or oats, and a

limbs green food perhaps.

buying the rabbits, it is as bave proper hutches all ready for them. hutches can be made out of large They should the placed on their sides so that the opening of They should then be desired into two compartments by means of a This partition must, of course, have m upwaisg cut in it of such a size as to let a mont pass through from one compartment to The first compartment should have a transework door covered with wire netting, while the second one, which is intended to be used as a sleeping compartment, should be

provided with an ordinary wooden door to exclude the light. A row of holes, about half an inch in diameter, should be bored in a row along the top of the door of the sleeping com-

partment to provide ventilation.

Both doors should be fitted with strong catches or fasteners of some sort, otherwise the rabbits may escape and cause considerable damage to the garden. In order to keep the hutch or hutches dry and waterproof, they should be fitted with a sloping roof made of boards and covered with ordinary tarred roofing felt or corrugated iron. The roof should be made to slope towards the back of the hutch, otherwise, in wet weather, the rain water would have a tendency to trickle down through the door of the hutch and make the interior

The floors of the day and sleeping compartments should be covered with a layer of sawdust, and in addition to this a large handful of hay or straw should be placed in the sleeping compartment. The rabbits may eat their bed instead of lying on it, but that won't matter,

because it can easily be replenished.

It is important that the hutches should be kept perfectly clean, and so they should be thoroughly cleaned out at least once a week, and

oftener if they appear to need it.

If any sort of a yard or garden is available, the rabbits should be let out for a run whenever convenient. They will probably try to start and burrow their way out, so care must be taken to see they do not escape. It is equally important to see that they do not damage any plants in the garden, as a hungry rabbit can wreak havoc among, say, a bed of lettuces!

When lifting the rabbits in and out of the hutches, they should not be picked up by the ears alone, as this is naturally more or less painful; the base of the ears should be gripped with the right hand, while the left is placed under the hind legs to support the weight of the rabbit. In this way, all strain is taken off the ears, and the rabbit can be carried about quite comfortably. W. OLIVER.

## ANSWER TO ENIGMA (on page 199).

Soup.

S easoning, Spice.

2. O nion.

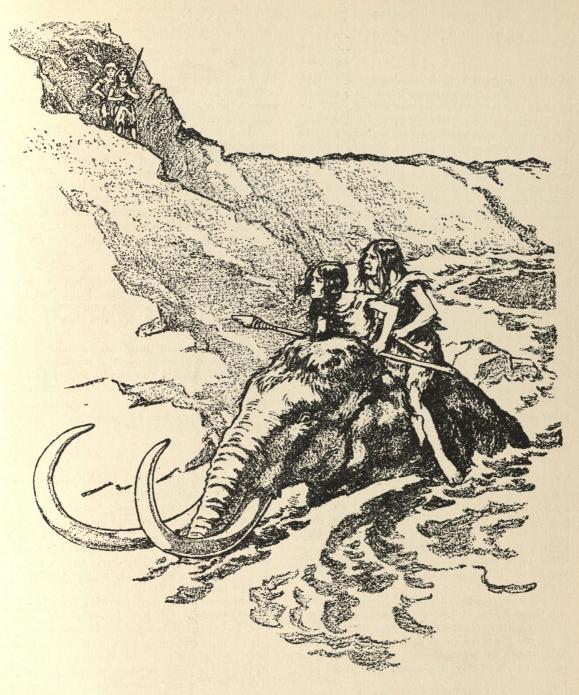
3. t-U rnip.

4. Potatoes, Parsley, Peas.

C. J. BLAKE.



AT CLOSE QUARTERS.



\* 'Look! Hrump is swimming almost!"

## THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' The Hidden City,' Princess Coma, &c. Illustrated by E. S. FARMER.

(Continued from page 219.)

'CHE pricked him with the spear,' Brild murmured, awestruck. That Lulu should so treat the spoilt Hrump was added proof of her determination. 'He is in the water now. They are both on his back. Look! Hrump is swimming almost!' Then he gasped as Zip-Zip suddenly caught at his arm and swung him round facing her.

'Listen,' said Zip-Zip, 'I have found it.

This is what he, my grandfather, said.'

'Er?' Brild stuttered. Why something her grandfather had said should affect Zip-Zip to such an extent he could not imagine. But she seemed transformed suddenly. Her eyes were shining. She was even smiling. Uneasy, he tried to pull away from her, but Zip-Zip held him.

'He said,' Zip-Zip began again, '"why did you not run along the cliff top? The cliff way is much shorter than the sand. Why did you not make a rope of the creeper twisted? You might have saved him." We will save Zan, said Zip-Zip. She let go of Brild and began to tear lengths of the creeper down, twisting them, knotting them together.

'We will run very quickly along the cliff top,' she explained more fully. 'We will call

to Zan when we are just above the ledge. I will go down and tie the rope round him if he cannot tie it himself. And you shall hold the rope and pull.'

Oh! shall I?' scoffed Brild. Did Zip-Zip really suppose he would help her with 80 mad a scheme? He gave a snort between a laugh and a whimper, and at that Zip-Zip again caught hold of him. He seemed to her more repulsive than ever before-that she should have conspired with him as improbable now to her as it did to Lulu. And should he stand in the way of this her chance?

'If you do not come with me,' said Zip-Zip, very quietly, 'I will kill you.' Against Brild's heart she laid the spear that Lulu had given her. When Lulu had first come running she had snatched it up. At the least pressure home the point would go.

'Alone, I cannot do it,' said Zip-Zip. 'I do not like you near me, but I need you. You shall come. And if you run away,' she finished earnestly, 'remember, I can run after you. I

can run faster than you.'

(Continued on page 234.)

#### ANCIENT BRITONS.

WISH you boys hadn't got a whole holiday every Saturday! But there—it is no good wishing. If you're good this morning, you can start directly after an early dinner for the British Huts on Carnlow Hill. Cook and I'll follow very soon after with the little ones, and bring tea with us. Whilst you're waiting, you can pick some blackberries for a tart,' said Nurse.

'Hurrah, Nurse! Ripping! Tophole!' cried the three boys, skipping about the lawn and jumping over flower-beds to show their delight.

'Only if you're good and sensible, though! With your father and mother away, I'm not going to stand any nonsense; you mind that,

'All right,' said Joe, the eldest, aged ten, turning a somersault on the grass, his example being immediately followed by Geoff and Tom, twins, aged eight. Over and over they went, then started leap-frog, tumbling over each other and laughing joyously.

'Madcaps! Very well, then; no British Huts this afternoon!' said Nurse severely.

'Oh, yes, please! We'll stop at once and go and finish our lessons for Monday. Come on, twins,' commanded Joe, and away they went to their schoolroom, where the morning

passed fairly peacefully.

Nurse kept her promise of an early dinner, and then sent off her three eldest charges, wearing their oldest garments, and armed with sticks and tin cans in which to put black berries, though she and Cook had little faith in the three small boys as providers for tarts: most of the berries got popped into their mouths.

'Don't go beyond the huts, children: promise! called Nurse, as the boys swung the drive gate

behind them.

'All right: we promise!' cried the three; and however naughty and tiresome they were, Nurse knew that she could trust their word.

Away they trudged, three happy, lively boys, through the lanes towards the bleak wild-looking hill, where, hundreds of years ago, ancient Britons built their bee-hive shaped huts. The ruins were now a source of delight and interest to these small brothers, who were never tired of playing at Ancient Britons.

One couldn't help skipping, leaping, singing and shouting for very joy on this lovely summer day. Everything was jolly, bright and gay.

Arrived at last at the ruins, now almost hidden by boulders, heather, gorse and bracken, the three sat down to plan some amusement, whilst waiting for Nurse and tea.

'Let's go and pick more blackberries. I've eaten nearly all mine!' said Tom, examining his can.

'I've got a fine idea!' cried Joe, springing to his feet. 'We'll pick our cans full, then squeeze out all the juice, and rub it all over ourselves; it'll be something like woad—not quite the right colour. We must hurry before Nurse comes. When we see her coming up the hill we'll go and meet her and the children, and pretend we're ancient British Chiefs.'

'Topping idea!' agreed the twins.

'We shall have to take off our jerseys and

things,' said Geoff.

'N-o-o. We'd better do our faces, necks, arms and legs; more might get us into trouble,' reflected Joe. 'Come on—quick, twins.'

Quick they were! Blackberries were very plentiful, large and juicy. Each boy soon had enough to produce 'woad.' With flat stones they pressed out all the juice, and a nice mess they made in doing it. What a mercy they were old clothes!

'Now, dip your fingers in, and smear it all over your face and neck, like this,' commanded

Joe, rubbing the juice energetically over his forehead, cheeks and neck.

The twins rubbed hard, and all three began

to get a fine 'woady' colour.

'I say! it'll take a lot of juice to cover our arms and legs! said Geoff, still hard at work on his neck. 'Mine's getting used up.'

'I've got heaps left. I'll pour some into your can.' Tom jumped up eagerly; over went his pail, and his plentiful supply trickled down the steep, uneven path.

'Whew! Hard luck! What a bother!'

exclaimed Tom, darting after his can.

'Never mind. We'll hurry up and pick

more. Plenty left!' said Joe.

When the second lot of woad had been squeezed out, Tom spied Nurse and party toiling up the hill. 'We shall never get finished in time!' exclaimed he.

'Buck up!' cried Joe.

They bucked up, and smeared themselves well before Nurse and Cook could reach them with three small children and provision baskets.

Joe picked ferns and leaves, and twisted them into wreaths for their heads. 'Now we're more ancient Briton-like!' said he, ramming a scratchy wreath on each twin's head.

'We must have spears, bows, and arrows!'

said Geoff.

With their pocket knives, they hacked at the long stringy stalks of the bracken fern, or cut twigs from stunted elders which grew in the crannies, and made rude spears and arrows.

'Boys, where are you?' called Nurse. The boys did not answer, but they appeared

in a stately procession, headed by Joe.

'Three British Chiefs welcome you all to their huts, where they hope you will spend a very happy afternoon.' The three ancient Britons then shouted, 'Hurrah! Hurrah for our guests!'

(Concluded on page 263.)

### BRIDGES.

By P. M. BAKER, B.Sc., M.B.E., A.M.I.E.E., A.M.I.E.Mech.

Illustrated by BERNARD WAY.

(Continued from page 213.)

THE greatest cantilever bridge in Britain is the well-known Forth Bridge (figs. 13 and 14). Examine the diagram and you will see that each of the piers carries a

double cantilever, i.e., a bracket in each direction, so that the two balance each other, and if you bear this in mind you will be able to see that, complicated as the structure may

appear, it is really constructed on the same principle as your model. The bottom members of each cantilever represent our struts and the top our tie-bars, while extremities of these cantilevers carry the ends of the framed girders which represent the middle part of our model. The picture in fig. 14 will enable

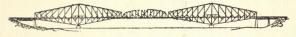


Fig. 13.—The Forth Bridge.



The Quebec Bridge.

you to form some idea of the size of this The dimensions-350 feet for the short middle span alone, 351 for each pierwill become more real to you if you compare them with distances and heights which you know, such as that from your home to your school or college, the height of your church tower or spire, of the tallest chimney you know; or you may pace out the horizontal distances and so get an idea of what they Fig. 15 gives the outlines of double cantilever bridges.

The engineer who built the great bridge over the St. Lawrence River at Quebec (fig. 13) has the distinction of having designed and erected what is, so far, the longest single-span bridge in the world. When this bridge was first being erected a part of it collapsed; a bridge of this kind is not as well able to

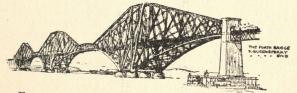


Fig. 14.—The Forth Bridge, with train emorging.

support itself during the erection period as when it is completed and all the parts are

Swing Bridges. — An interesting problem sometimes faces the bridge-builder, viz., that of constructing a bridge to carry a road or railway - probably both - across navigable waters; as, for example, at the entrance to a

dock, where it is necessary for a water passage to be available sometimes for the passage of ships into and out of the dock, while, in the ordinary way, the road and railway must be maintained, in order to give ready access to the quays for the loading and unloading of ships lying alongside them.

Most of the older bridges built for this pur. pose were swing bridges, i.e., they turned about on a vertical axis, their weight being carried either on large rollers or on wheels running on a circular track around the axis. Large bridges of this kind are moved by hydraulic power. A small hydraulic engine drives a 'pinion' (i.e., a toothed wheel with a small number of teeth) gearing into a large gear wheel fixed on the under side of the bridge or on its vertical axis or shaft. The rotation of the pinion winds the bridge round in one direction or the other, so that it stands 'across' or 'along' the waterway, in either of which positions it can be

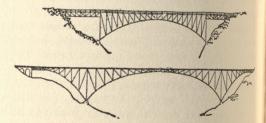


Fig. 15.—Outlines of Double Cantilever Bridges,

secured by bolts. In many modern swing bridges, the axis takes the form of a ram or plunger fitted into an hydraulic cylinder which is connected to the high-pressure water supply. By adopting this arrangement the weight of the bridge can be partly or entirely taken of its ordinary bearings during swinging and supported on the ram, which, being water-borne, is easily turned.

As an example of this kind of bridge, we choose from the many which are to be seen in various parts of the country the Barton swing aqueduct, which carries Bridgwater Canal across the Manchester Ship Canal, as it is one of the most interesting bridges in the world, and as having to carry one canal across another, it presents many difficulties not met with in ordinary bridges (see figs. 16 and 17). This bridge, which is in the form of a long trough is supported on a turn-table and an hydraulit cylinder on a massive pier built on an islandin the centre of the Ship Canal. The ends of the trough can be closed by suitable lock gates, of

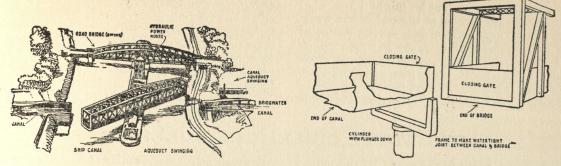


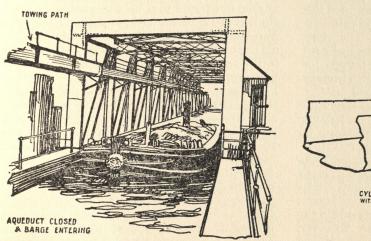
Fig. 16 .- The Barton Swing Bridge, with details.

sluices, as can also the ends of the stationary parts of the canal which it connects when There is a wedge-shaped U frame which fits in between each end of the bridge and the fixed end of the canal, when the bridge is closed, to make a water-tight joint between When it is proposed to 'open' the them. bridge, which weighs about 1400 tons, the four sets of lock gates having been closed, two hydraulic cylinders whose plungers or rams support the U-shaped frames at each end of the bridge, as shown in the diagram, have their valves closed to water pressure and opened to waste, thus lowering the frames and setting free the bridge of which the weight is partly borne by the pressure of the water, which has now been turned on to the central hydraulic cylinder acting on its plunger.

The hydraulic engine is then started, and the bridge is gently swung into its open position

along the line of the Ship Canal. When the ship has passed, the bridge is swung back again into the closed position, lowered gently on to its bearing by removing the pressure from the central hydraulic cylinder, and connected to the 'standing' ends of the Canal by raising the U frames, through the medium of their hydraulic cylinders.

Then, the water having been admitted, by means of a valve, into the space at each end between the pairs of lock gates, these can be opened and traffic resumed on the Bridgewater Canal. An interesting historical feature about this bridge is that it took the place of an older Barton aqueduct which had to be removed when the Ship Canal was made. This old aqueduct, which carried the oldest canal in England, dates back to the time when every mason marked each stone which he cut and put in place with his own private mark,



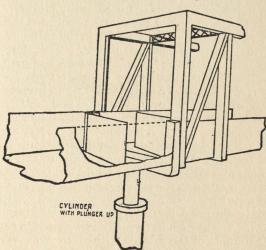


Fig. 17.—The Barton Swing Aqueduct, with details.

presumably in order that he might know what pay he was to receive at the end of the week. These marks can still be seen on the stones of an arch which has been re-erected near to its original site to remind us of the good work the engineers of the past accomplished. Manchester readers will have more opportunities of seeing this bridge than others, as it is within

easy access of their city. There are several other large swing bridges over the Manchester Ship Canal, most of which carry roads and several of which are of great size and weight One, near Salford Docks, weighs about 1700 tons and is possibly the heaviest bridge of its kind in the world.

(Continued on page 243.)

## THE STORY OF LEMUEL GULLIVER.

N a dark night in the year 1726, a hackney coach drove up to the house of one Benjamin Motte, a publisher, and a parcel was left at his door, containing a manuscript. There was nothing to tell from whom the package had come. Later, a letter arrived from a Mr. Sympson, saying that his cousin, Mr. Lemuel Gulliver, had entrusted him with a copy of his travels which he wished to have published, and that he had sent Mr. Motte a quarter of the book to read. He added that the author intended the profits to be for the use of poor seamen and 2001. was the least he would expect for the book. If Mr. Motte agreed and in three days delivered bank bills for 2001. wrapped up to look like a parcel, to the bearer of the letter, in a week's time the rest of the manuscript would be delivered to him.

Motte would not pay the money beforehand, but he agreed to publish the book that had arrived so mysteriously in a month's time, and to give the £200 a month after, if it had been successful. He realised that he had been sent a manuscript that was extraordinarily clever.

It is uncertain how far Motte penetrated the secret, and whether he believed in the existence of the cousin 'Lemuel Gulliver.' The story was in fact an entire 'fake.' The book had been sent out for publication by the poet Pope for his friend Jonathan Swift, a well-known literary man of the day, who was the real author. Trouble was taken to keep his secret, though it was known to many. After finishing the writing of it, Swift had hesitated about publishing it, for though written in the form of the travels of a man who visited unknown lands, the book was really a satire on the government and politics of his own time. In his characters he had drawn thinly disguised portraits of many well-known people. They could be easily recognised in the inhabitants of the islands visited by Gulliver. Swift need not have been afraid, for in a few days after it appeared, every one in London

who read books was reading Gulliver's Travels and enjoying it, including the then Princessof Wales, who could be recognised in the Queen of Brobdingnag.

Sir Thomas More and Sir Francis Bacon both wrote of ideal states as a remedy for the future, but Swift in his story is satirizing things of his own day. Lilliput and Blefuscu, the two islands on which Gulliver first landed, are placed in the position of France and England, and there are many allusions to the affairs of the two countries, which were not very happy just then. This, of course, added much to the enjoyment of those who read the book at the time it was written. To-day many of these details have been forgotten, and the book is read for the sake of the story alone and the fantastic adventures of Gulliver.

He was a ship's doctor and, like the usual hero of this type of story, he was shipwrecked and was the only one of the crew to escape. On reaching land he could see no sign of any inhabitants, and being extremely tired, lay down and fell asleep. When he awoke he attempted to rise, but found that he was unable to move. He was lying on his back, and his arms and legs were firmly fastened to the ground, and his hair, which was long and thick, was tied down in the same way. He heard a confused noise, but from the position in which he lay, could see nothing but the sky. Presently he felt some thing alive moving along his left leg. It grade ally advanced as far as his chin. Looking down, he saw that it was a little man, not more than six inches high, with a bow and arrow !! his hand. At least forty others similarly armed followed him. Gulliver, in his astonishment, made such a loud noise that they all ran back in fright. He managed to loosen himself little and sat up; immediately a shower of arrows were discharged at his left hand and some on his face, so that he felt it prudent be still again. By the noise he knew that

many more people were collecting and saw that a stage, with ladders to mount on to it, was being built beside him. From it, an importantlooking person made a speech to him which he naturally could not understand, but he managed by signs to make the speaker grasp that he was famished with hunger. Before long, hundreds of people mounted by ladders up his sides, bringing provisions. He ate the little joints of meat and the loaves of bread two or three at a time. Later in the day he was raised by pulleys on to a great engine made specially by 500 carpenters and engineers, and which was drawn by 1500 of the Emperor's largest horses. Secured on this, he was taken on a long journey to the chief city of the land, and was met by the Emperor and his Court.

He was given an ancient temple of enormous size, according to the idea of the inhabitants of the land, for his house. As he was now only secured by chains two yards long, he was able

to creep in and lie down.

Here Gulliver lived and became a great favourite at Court. He learned the Lilliput language, and had much converation with the Emperor and others on the customs of the country. He was eventually given his liberty and allowed on a specially appointed day to visit the imperial city, which he was anxious to see. The people were commanded to stay in their houses lest he should tread on them in the streets, though they crowded on to the housetops to gaze at him. By stooping down carefully, Gulliver was able to look into the windows of the palace and to see what the inside of the houses in Lilliput were like. He helped the king in his wars against the neighbouring island of Blefuscu, securing a great naval victory. He was easily able to seize the whole enemy fleet and drag it to the shores of Lilliput. He was saved injury from arrows of the defenders by wearing his spectacles. He helped in the peace negotiations between the two countries, and because he insisted on lenient terms for the defeated, fell out of the Emperor's favour. Hearing that he was likely to be tried for high treason he fled to Blefuscu, where he was eagerly welcomed, but owing to the difficulty of finding him a suitable house he was forced to lie on the ground and endure much discomfort. After a few days he noticed an overturned boat on the sea and managed to drag it to land. Feeling that he was likely to cause trouble between the two islands, and that there would be no sense of security for

himself, Gulliver had the boat repaired and eventually set sail from Blefuscu. After two days he fortunately encountered an English ship, and was taken on board and brought safely back to his own country.

Gulliver only stayed at home for a year. Then he set out on another voyage and was again shipwrecked, this time on the land of Brobdingnag. Here everything was reversed from that of Lilliput. Gulliver himself appeared to be very tiny, for the inhabitants were of enormous size, an average man being about the height of an ordinary church steeple. Gulliver was discovered by a reaper in the fields and taken by him to the farmer. The farmer, on finding him to be a living being, took him home to his family. Here he was made a great pet of by one of the children and was given into her charge. Though only nine years old and considered small for her age, she was at least forty feet high; her name was Glumdalclitch.

Hearing of his extraordinary find, the farmer's neighbours flocked to see the tiny man. So much interest was shown that the farmer exhibited him as a show at the nearest market town and gained much money by doing so. The news spread far and the farmer was sent for to bring his charge to Court. So delighted was the Queen of Brobdingnag with Gulliver that she bought him of the farmer for a good sum, and Glumdalclitch was allowed to stay at Court to look after him and instruct him in the ways of the country. A box was fitted up for him as bedroom, and made with a strong lock to the door to keep out the monster rats and mice. Gulliver was much troubled by insects, especially wasps, which were as large as partridges and which tried to sting him when his box was put upon a window ledge to enable him to get fresh air. Another box was made for him to travel in: it was provided with a hammock so that he should not feel the shaking when carried on his nurse's lap, or before a servant on horseback. When he had learnt the language, Gulliver had many conversations with the king and his ministers about the government of his own country, and became as equally respected and important as he had been in Lilliput.

After spending two years in Brobdingnag, while on a progress one day round the country with the king and queen, Gulliver was taken to the shore to get some sea air by one of the royal pages. The page left Gulliver in his

box on a rock while he wandered off. The box was seized by a gigantic bird and carried out to sea. Gulliver was finally rescued by a passing ship and enabled to return to England.

Swift wrote an account of two further voyages of Gulliver, to the island of Laputa

and to the country of the Houyhnhums, but these stories were more general and savage satires.

The voyages to Lilliput and Brobdingnag will long be read and enjoyed for the sake of the strange adventures of the immortal Gulliver.



Gulliver seizing the Fleet of Blefuscu.



"Over the edge he went,"

## THE DIM RED DAWN.

By Mrs. HOBART HAMPDEN, Author of 'Louisa,' The Hidden City,' Princess Ooma,' &c. Illustrated by E. S. FARMER.

(Continued from page 226.)

CHAPTER XXVI. THE ROPE TIGHTENED.

'T OOK down. We are just above the ledge,' said Zip-Zip. 'Tell me what you see. 'But I might fall?' Brild protested.

'Look down,' Zip-Zip merely repeated. 'Go down on your hands and knees. Crawl to the

edge and look.'

They were both standing not very far from the edge already. They had run across the plain by the shortest route, Zip-Zip's left hand tight clasped round Brild's wrist, her spear in her right. As they ran she had looked back from time to time at the water behind.

'They cannot pass the curve,' she had whispered, before she brought Brild to a halt abruptly. And looking, too, at the curve, he could see outlined against it a darkish

blotch.

'So far Hrump has come. He will not come much further,' Zip-Zip had finished; and instantly she had begun to hack a ragged strip from her tunic, as the rope seemed to her scarcely long enough. It was as she hewed she had said-'Look over.' And, since there was something in her voice Brild dared not disregard, he lowered himself-not on to his hands and knees, however, but on to his stomach for greater safety's sake, and inch by inch began to wriggle towards the cliff edge. And, as he crawled, he heard a stealthy, creepy scratching. There was no sound from Zan. Was he only bones already, after all? Zip-Zip would not need to use her rope, Brild thought confusedly. But what would Lulu do when she returned? Brild's head was out into space now. He could look down. He blinked, then peered at the sight beneath him.

He was just above the ledge. Zip-Zip had calculated very accurately-perhaps with the aid of some landmark she had not pointed out. And not at bones only was Brild looking, but at Zan whole. At Zan, lying so close against the cliff face it seemed he had burrowed into it with nails and teeth. He must have revived sufficiently not only to call to Lulu, but also to move. Brild had left him lying facing the

sea, his legs dangling.

'The turtle will see his feet and will come,'

Brild had reckoned. In this at least he had not been mistaken. The turtle had come, or, rather, it was coming. As yet it was still climbing, clinging to the ledge with its foreclaws, scrabbling with its beak. Its eyes were just on a level with Zan's body, fixed on its prey.

'O-o-o-h!' said Brild.

'What do you see?' said Zip-Zip's voice behind him.

'I see the turtle,' Brild told her softly, almost afraid the thing might try to reach himself instead of Zan if it heard him. But its eyes never shifted. They looked steadily towards their meat.

'What is it doing? Can Zan move?' Zip-Zip questioned next, busy still with her

preparations.

'Zan islying quite quiet. It is trying to get at him,' Brild answered a little more boldly, too interested now to be quite so frightened. 'I can see its tongue. A yellow tongue. Look, too,' he urged, so fascinated that he felt sure Zip-Zip would find the sight attractive also. Out came the tongue again as he spoke, and clean across the ledge it flickered. It touched Zan's foot, drew blood, and after it as it flashed back there ran a thin red trickle.

'O-o-o-h!' said Brild again.

'Get up,' he heard Zip-Zip say sharply. 'I am ready.' He felt her kick him in his ribs, and looking sideways, he saw that she had come to stand beside him, and that round her middle was the skin looped, while the rest of the rope to which it was now joined lay coiled at her feet. She stooped, picked up the further end, and fastened this round Brild in turn. Then she jerked him to his feet, and once more she glanced at the dark blotch.

'I am ready, Brild,' she repeated. 'Now, listen.' About her there was still something Brild could not resist. He had had time to remember he was in fact stronger than Zip-Zip; that, very likely, he could wrest the spear from her if it came to a tussle. But yet she dominated him. She was so wholly set upon her purpose—so obviously not to be turned from it.

'Listen, Brild!' she said once more. 'Hold the rope, so, between your hands. Let it

lengthen as I need it.'

She pushed him back a few paces. Now she was kneeling with her back to the water. Now she was feeling for a foothold on the cliff face.

Mechanically Brild paid out the rope and dug his heels in as he felt the strain. He could do nothing else. He could not free himself nor cut the slack of the rope, for he had no weapon. He had to brace himself against Zip-Zip's weight and to follow the directions she had given. He dared not even lift his eyes from the shifting line. He did not see that Hrump had at least contrived to get close enough by this time for Bobo and Lulu to stand out from his bulk; that the two were watching intently the figure that descended the cliff.

Down it went—down. Brild could feel the rope was moving faster. His hands, now raw and sore, let it slip faster yet. And all at once it taughtened. He was jerked

forward.

'Zip-Zip, come back!' Brild began to shriek. He was slithering towards the cliff edge despite his utmost efforts. 'Zip-Zip, come back!' he shrieked again. And over the edge he went, hurtling through space towards that thing below.

# CHAPTER XXVII. AN EYE FOR AN EYE.

OPEN your eyes, Zip-Zip. Open your eyes, Zip-Zip thought she heard some one say. Who, she could not imagine. Her eyelids felt queerly heavy. But since to keep them shut not knowing what was happening was worse than to open them, she raised them slowly. Looking round she saw that she was actually in the cave once more. She was lying flat on her back, and Bobo was standing on one side of her; on the other Lulu crouched. And as Zip-Zip raised herself, half sitting, on her hands, she saw too that not far away lay Zan, and that beyond him, huddled, was Brild.

But where is the turtle?' asked Zip-Zip muzzily. Cautiously her hand went out to clutch at Lulu, and at least Lulu did not remove it. She could not be altogether beyond pardon, then? Zip-Zip slipped flat again, happier. She had felt queer and giddy sitting up. But as gradually her head grew

clearer.

'What happened?' she ventured to ask.

'You fell on the ledge and Brild fell on it, and the bit beyond you crumbled, and the turtle slid back into the water,' Lulu told her. 'And then part of the cliff below the ledge crumbled too, so that it could not climb again. And as the water went, it swam away. Perhaps it smelt Hrump and did not want to wait for him. And then we got close up to the ledge and brought you back again,' Lulu finished, a shade abruptly. For some reason she seemed almost embarrassed. Unable to deal with the situation, Zip-Zip waited passively.

(Continued on page 242.)

## THE THINGS I DO.

WHEN I run downstairs in the morning,
The Things I am going to do
Skip joyfully down before me
And laugh—and I laugh too!

There's the Frolic I'll have in the hay-loft, My Garden I'm going to weed, The Enchanting Spirit of Make-believe, The Books I am going to read.

The Things I'll do for Mother,
And other people too.
Oh! you wouldn't believe the scores that run down
Of Things that I'm going to do!

We run into the garden
And into the broad sunlight,
And some I sing and play with,
And some—I forget till night.

When in the purple evening
I clamber up to bed,
The Things I have done, come up behind—
They never run ahead.

'Thank-you' and 'Please,' which I often forget, Come sadly up behind; And 'Giving Up,' who is pretty, And 'I Want,' looking rather unkind.

Some sigh as they creep behind me, Some smile and chuckle too; Say some, 'Why, don't you remember? We're what you were going to do!'

So the good, the bad and forgotten,
Together upstairs we creep,
And they sit down round my pillow,
And we talk till I fall asleep.

E. L. ELPHICK.

### MY DIARY.

Written and Illustrated by RUTH COBB.

VIII.-POETS' DIARIES.

THOMAS MOORE enjoyed dining out, and he was a welcome guest everywhere. He was an Irishman, and a popular poet of his own day. He wrote verses, which he set to the music of Irish national airs. These Irish melodies are still sung, but at that time they



were all the rage, and known to everybody. Lalla Rookh, an Eastern romance in verse, that he published in 1817, was read far and wide. In 1818 he began to keep a diary, for what reason we do not know, but in it we have a complete picture of the kind of life he lived.

At the time that the diary opens, he was living with his dear wife, Bessie, to whom he was devoted, at Stopperton Cottage, Wiltshire, close to his friend Lord Lansdown; but he constantly came up to town, and when there evidently enjoyed himself very much. He was flattered when great people paid attention to him.

He was constantly to be seen at the receptions of Lady Holland, one of the famous hostesses of the day. It was an age of dining out, and Moore was popular with both men and women. He was one of the

idols of society, so little and rosy in appearance that he was sometimes compared to Cupid. That he could sit down and accompany himself, while he sang his own songs, was an added attraction. He was sociable, and he entered all his engagements in his diary.

He had many literary friends, chief among them, perhaps, Sir Walter Scott and Lord Byron, both poets, and both keepers of diaries. Sir Walter sometimes described the same inci-

dents and people.

On October 17th, 1826, Moore writes, 'Bessie would not hear of my staying at home, insisted that I must go either to Scotland, or Ireland, to amuse myself a little. Dear, generous girl, there never was anything like her for warmheartedness and devotion.'

October 27th, 'Set off between eleven and twelve in a chaise for Sir Walter Scott's.'

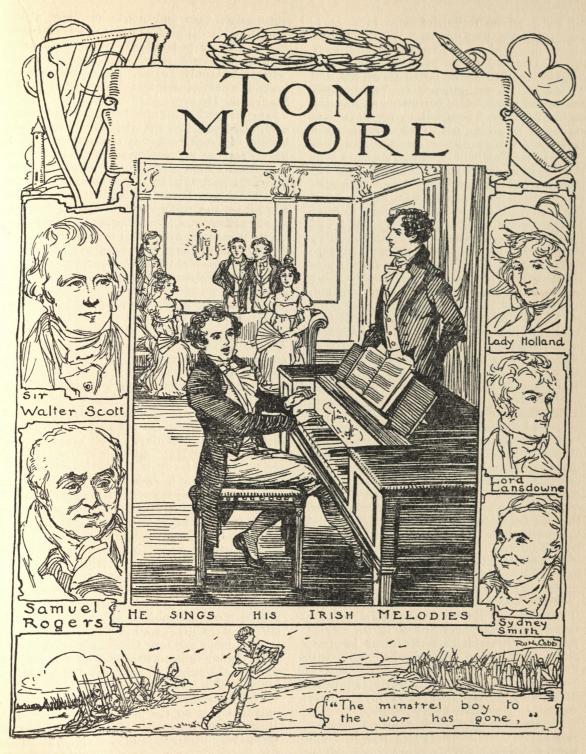
At Abbotsford there was much talk, and Moore sang, as usual, in the evening. 'I then



"A cab, Mr. Moore?"

sang several things, which he seemed to like, spoke of my happy power of adapting words to music, which he could never attain, nor could Lord Byron either.'

And the next night. 'In the evening I sang, and all seemed pleased. Scott confessed he hardly knew high or low in music. Told him Lord Byron knew nothing of music, but



still had a strong feeling of some of those I had just sung, particularly "When he who adores thee," that I have sometimes seen the tears come into his eyes at some of my songs. Another great favourite of his was "Though the last glimpse of Erin," from which he confessedly borrowed a thought for his "Corsair," and said to me, "It was shabby of me, Tom, not to acknowledge that

thought."

Moore can hardly have written his diary with the idea of its future publication; he enters so much about his own popularity, and with such One night after a party, in enjoyment. September, 1842, he left the house with Edward Irving, a well-known preacher. 'We had hardly got into the street, when a most pelting shower came on, and cabs and umbrellas were in requisition everywhere. As we were provided with neither, our plight was becoming serious, when a common cad ran up and said, "Shall I get you a cab, Mr. Moore? Sure, ain't I the man that patronises the Melodies?" While putting me into the cab (without minding at all the trifle I gave him for his trouble), he said confidently in my ear, "Now mind, Mister Moore, whenever you want a cab just call for Tim Flaherty, and I'm your man." Now this I call kind.

Another time the Librarian at the British Museum told him 'of a poor Irish labourer now at work in the Museum who on hearing, the other day, that I also was sometimes at work there, said he would give a pot of ale to any one who would show me to him, next time I came. Accordingly he was brought where he could have a sight of me as I sat reading: and the poor fellow was so pleased that he doubled the pot of ale to the man who performed the part of showman.'

It is difficult to-day to realise how popular and well-known Thomas Moore was to the man

in the street.

When Moore visited his relations in Ireland, it was the same. He was given a public welcome, there were triumphant arches in the streets, people sang his Irish melodies as he drove along, and pretty girls crowned him with

Sir Walter Scott gives his early impression of Thomas Moore in an entry in his diary, written on November 22nd, 1825.

'I saw Moore (for the first time, I may say, this season). We had indeed met in public twenty years ago. There is a manly frankness

and perfect ease and good breeding about him which is delightful. Not the least touch of the poet or pedant. A little-very little

Scott had only begun to keep his diary a few days before, although he continued it to his death. He says: 'Edinburgh, Nov. 20th. I have all my life regretted that I did not keep a regular journal. I have myself lost recollection of much that was interesting, and I have deprived my family of some curious information, by not carrying this resolution into effect. I have bethought me on seeing lately some volumes of Byron's notes, that he probably had hit on the right way of keeping such a memorandum book, by throwing aside all pretence to regularity and order, and marking down events just as they occurred to recollection. I will try this plan: behold I have a handsome locked volume such as might serve a lady's album.'

Moore enters in his diary on Oct. 23, 1826, after breakfasting with Sir Walter, 'Intalking of their approaching trip to Paris, I said, "How I should like to go with you," upon which he and Miss Scott caught eagerly at my words, and, with an earnestness that was evidently real, pressed me to accompany them. Nothing could be more tempting. I almost made up my mind to do it. Their departure fixed for Thursday, promised to let them know for a certainty on Wednesday. Scott said as I was coming away, "Now, my dear Moore, do think seriously of this: you would be of greatest service to me, and we have a place for you in the carriage, only you must take care not to rumple Ann's frills."

Moore wrote to his wife about his proposed trip with Scott, and she persuaded him to go. So on October 25, Moore called on Scott, to tell him he hoped to start with him on the

morrow.

'Sir Walter said, "That's right, but what about your passport?" After some conversation on the subject, left him. Made up my mind to give up the journey: whether it was fancy or not, thought I had seen a little change in Scott's manner on the subject: a slight abatement of his former eagerness for my going.'

It is amusing to see in Scott's diary, that the only entry is on the 23rd November. 'Sam Rogers and Moore breakfasted here, and we were very merry fellows. Moore seemed disposed to go to France with us.' But

Moore did not go. Scott went alone with

his daughter!

The poet Byron was a great friend of Thomas Moore, and wrote constantly to him when he was living abroad. It was well known that Byron kept a diary for three short periods. After his death in Greece, Moore wrote and published Byron's life and letters, and intended also to publish the journal. In spite of his popularity Moore was generally hard up: he earned a lot of money, and spent it, and had to write all kinds of books, besides his verses, to support his family. He felt that Byron's journal would be widely read, and he raised some money beforehand on the strength of its future sale.

Lord Byron's family objected to the publication of the journal, and eventually Moore gave the manuscript up to them, and it was finally burnt by Byron's publisher and trustee, and the life was published alone with but a few quotations from the journal. Moore writes fully and somewhat dully of these nego-

tiations in his own diary.

Scott says in his: 'Moore has, I think, been ill-treated about Byron's Memoirs: he surrendered them to the family, and thus lost 2000l. which he raised upon them, at a most distressing moment of his life.'

Scott took the writing of his diary very seriously; he heads it on January 1st, 1827, with a little rhyme:

'As I walked by myself, I talked to myself,

And thus myself said to me.'

He then says, 'Since the 20th November, 1825, for two month that is, and two years, I have kept this custom of a diary; that it has made me wiser or better, I dare not say, but it shows by its progress that I am capable of

keeping a resolution.'

Of one, a famous diarist also, he writes:—
'Nov. 18th, 1826. Was introduced by Rogers to Madame D'Arblay (Fanny Burney), the celebrated authoress of *Evelina*, an elderly lady, with no remains of personal beauty, but with a gentle manner, and a pleasing countenance. She told me she had wished to see two persons, myself being one.'

In these two diaries, written at the same time, by two men utterly different, who were friends, and both famous, we get to know their lives, with their many vicissitudes, and have a vivid picture of the times they lived in, and the

people they met.

#### FOX CUBS.

ROSE early one morning late in April, and walked out into the woods.

A vagrant, whispering breeze swayed the branches, shaking the dewdrops from bursting bud and early leaf. Owls hooted their last and retired ghost-like to the shelter of gloomy barn or ivy-draped, hollow tree. Jays and magpies fluttered on their perches and held low, chattering conversations before thoroughly rousing themselves to search for breakfast. The hedge sparrow, that most modest and industrious early bird, hopped and pecked among the dead leaves under the trees. I felt like an intruder upon Nature's secrets and moved silently, almost with bated breath.

As I advanced the level beams of the rising sun glinted through the trees, transmuting into jewels the drops that still hung from twig and spray. At the base of a sandy knoll, yellow and tree-crowned, I was brought to a sudden halt, and instinctively took cover behind a tree.

Upon a mound of sand, lately thrown up from a deep den, a fox cub was sniffing about. Presently he was joined by four or five others that emerged singly from the den, whiskery-faced, woolly-coated fellows with long, drooping brushes trailing behind them. They blinked in the sunlight, rubbed their faces with their fore-paws, and scratched themselves.

A movement in the undergrowth attracted their attention. They dropped flat—hardly to be distinguished then from the sand on which they crouched. Almost immediately, however, they sprang up again, and scrambled down the bank as the vixen appeared from the bushes carrying in her mouth a fowl, a hare, or whatever her night hunt had yielded. This she laid upon the ground and sat down panting, while her hungry offspring, with more haste than manners, fell upon the spoil, fought over it, and tore it to pieces almost in the twinkling of an eye. The soft flesh was immediately gulped, the blood that had been spilt was licked from leaf and ground.

But one cub had managed to secure a large bone, and was trying to devour it unseen by his brothers and sisters. One could not help laughing to see the cunning little rogue as, with an expression of apprehension mingled with ferocity, he dragged it behind a bush and

began to crack it with his molars.

His baby face, so innocent and sweet when he first appeared, was now distorted by passion and the bone into something comically devilish.

Nor were his fears without foundation, for his retreat was discovered within a few moments. His less fortunate companions, inspired by envy, hatred, and malice, seized upon the bone, a tug of war followed, accompanied by fiendish growls and snarlings, till every scrap of food had disappeared.

The meal ended, it was pretty to see the complacency of the vixen as she sat grinning with hanging tongue and loving mother eyes watching the play of her children. And indeed the sight was one to arrest and charm, for of all the lovely and graceful creatures to be found in the woods those fox cubs seemed the most attractive. They were so full of life and energy, so wild with the joy of motion, so nimble, so sly, so delighted when successful in taking a comrade unawares and rolling him over and over. They drew back their upper lips, assumed a threatening and venomous expression, ducked under their opponent's guard, and seized him by the vitals in mimic deadly attack. I saw them running races, out from home and back again, going in longreaching strides silent and swift as shadows. I saw them dodging and doubling among the bushes; so strong, so quick, so pliant, so lovable in their glad appreciation of life and its pleasures. I laughed when they threw themselves down panting and grinning in feigned exhaustion, and at many other artful manœuvres to outwit their companions.

I noticed that, in spite of their whole-hearted enjoyment, they were always on the alert for possible danger, pausing often to watch and

The sun had now fully risen, and my position behind the tree was no longer secret. An evil-

eyed jay saw me and screeched the news through the woods. The vixen growled once and melted into the bushes. One cub, perhaps two, repeated the growl, short and gruff, then all vanished underground as if by magic.

Their playground looked suddenly cold and deserted, but the surrounding woods became tuneful with the songs of birds, and the busy day had begun.

### WAYS OF ESCAPE.

EVERY animal, bird, beast, fish, insect, has to get its own living. So every mother-animal must do her best in order that her little ones shall grow up, that there shall still be plenty of every sort of animal in the world.

It is just because of these two things that animals have enemies and must protect themselves.

Even such helpless creatures as sheep have a means of protection. In countries where wolves are found, and where, too, sheep are kept in larger flocks than in England, if the sheep will keep together in a solid mass with those on the outside turning their faces towards the wolves, they are safe. The wolves can do no harm. The cunning wolf will try to entice one or two sheep to start away from the rest and to scatter the flock. The sheep's means of protection is by each helping the other and working together.

All animals whose means of defence is to run away are given very long ears, which catch the smallest sound a long way off, and very prominent eyes, which see more on each side than human beings can. The different sorts of deer, rabbits,

and hares are so provided.

Rabbits and hares can kick very hard with their back legs, and can drive away an enemy, such as a snake, should one attack their little ones.

MAUD MORIN.

# A HYMN OF HATE.

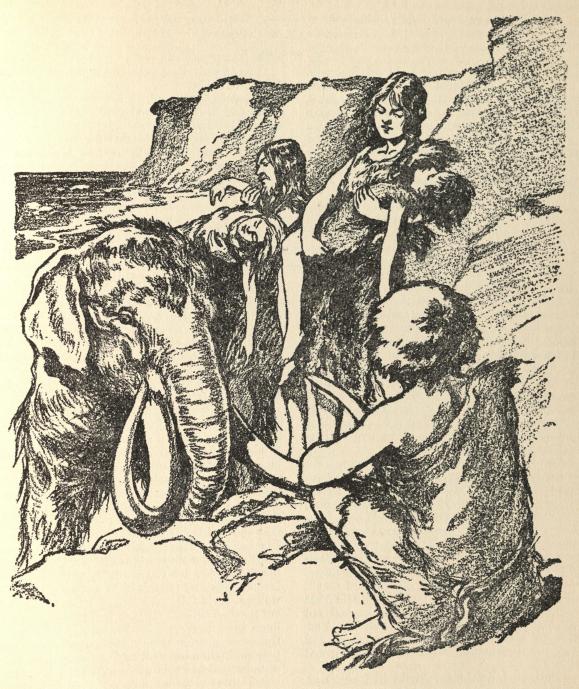
We have referred previously to a contributor now dead. It was Miss Elizabeth Dyke, who worked long and lived a hard life in Canon Clarke's parish. One or two of her contributions still remain unpublished. This is one of them, written during the Great War, when we were all laughing at the German 'Hymn of Miss Duke died of for another first war, when we were all laughing at the German 'Hymn of the Comment Hate.' Miss Dyke died a few weeks after she sent this in. The Editor at this time was purposely keeping out of Chatterbox anything about the War: the ideal of Chatterbox is Peace, but we saw no hope of the Rut Miss Duba's angular in the ideal of Chatterbox is Peace, but we saw no hope of the chatterbox is Peace. then. But Miss Dyke's message is worth having. She was a very brave and patient woman, very diligent

A LL bitterness and strife Which poisons human life, I hate, I hate!

All selfishness and greed, All bigotry of creed, I hate, I hate!

All cruelty and wrong, Oppression by the strong, I hate, I hate!

Whate'er makes Love to cease, And thwarts God's Will of Peace, I hate, I hate, I hate!



"Zan and Zip had been hoisted on to Hrump's back."

## THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' Princess Ooma,' &c. Illustrated by E. S. FARMER.

(Continued from page 235.)

'WHY did you do it?' Lulu asked slowly. She did not explain exactly to what she referred, and Zip-Zip could only shake her head. .It was beyond her in any case to explain clearly motives she but vaguely understood.

'You liked Zan,' she floundered. 'I wanted you to like my country best. And then Zan screamed. And you-I thought that you were very angry.' The hand still holding Lulu tightened.

'And you went down the cliff-you who were so afraid of the turtle,' she heard Lulu finish for her thoughtfully. Brild heard it too.

'And I went with her,' he began to plead. Brild had been gradually coming nearer. It seemed to him that possibly he might now safely take a part in the discussion. He knew more of what had happened than did Zip-Zip. He had fallen on top of her, and had not been stunned as was she. He had watched the turtle slip, and seen it disappear. He had watched Hrump, Lulu, and Bobo battling with the water until of its own accord it gave way. He had watched too while finally Zan and Zip-Zip had been hoisted on to Hrump's back, and had trudged cavewards behind Hrump while Bobo and Lulu had walked, one on each side of him, steadying the burden Hrump carried as best they might.

And Brild had had time for thought. He had even had time to grasp his own position. Zan had shown no further sign of life. He had not moved when Zip-Zip dropped beside him. He had not turned for Brild. When Lulu drew Zan away from the cliff face, he was quite limp. Lifeless he still lay. He would never surely speak again, to tell what had been done to him. If Zip-Zip did not betray all she knew, Lulu might for ever remain ignorant of much. And Zip-Zip had so far revealed little that mattered vitally to Brild alone; she had not cast more blame on him than on herself. Perhaps she had forgotten much of what he had told her because of all that had happened

'Perhaps Lulu thinks,' Brild had reasoned, 'that if she is very angry with me, she must be very angry with Zip-Zip too. And she is pleased because of the rope.

'I went with Zip-Zip,' Brild repeated. 'Lulu, I helped.

'Yes,' Lulu allowed, if not enthusiastically. Brild had in fact guessed at her position fairly correctly. In any case she was inclined to pursue the subject no further for the moment, not altogether certain she too had not a share in the blame.

Was it possible that after all Bobo was wiser than herself? Brild would always, of course, be furtive, undependable. But had she reckoned wrongly again on how, occasionally, he might behave? And had she made sufficient allowance for Zip-Zip? Had she not left Zan carelessly in a dangerous temper? And at that Lulu looked long at the little still body.

With Zan gone her cherished hope must be abandoned. It was a bitter disappointment. A little surprised, too, Lulu was discovering the loss of Zan meant more than disappointment. She had missed him on the plain; she missed him more now. She wanted him alive, not dead. To grin at her impishly. To pant for a new adventure as keenly as herself. To defy, yet to admire her.

She had admired Zan in a sense, too, she admitted now. If he could not be chief in Zend's place, his end should be fitting at least. With his treasured bow and arrows to keep him company, he should be buried with due ceremony on the plain above. Gloomily Lulu pondered on Zan's actual end a little. As she did not want to question Zip-Zip further, she had to piece together what had happened as best she could. It seemed strange that, though Zan had been able to call to her, he had been helpless such a short while after. The gash on his foot made by the turtle's tongue was not large. She had examined it as she and Bobo walked beside Hrump. And the turtle had not touched him otherwise: had its tongue, perhaps, been poisonous? Frowning, she crossed the cave to look at the gash again. All the poisoned wounds she had known had been discoloured, but this was not. Still perplexed she bent closer, her finger-tips straying over Zan, touching his heart, his throat. As the fire flickered up she bent closer yet while Brild watched, shaking. He had thought all danger

past, and now... What was she doing? He saw Lulu raise her head and look at him, her hand resting on Zan's head.

'There's something here,' Brild heard her say. 'There's clotted blood. Another wound under Zan's hair. That was the wound from

which he died. Ah!'
Had she guessed? Brild never knew, for suddenly he screamed, as Zip-Zip had done earlier. He, too, could not help it. In a flash

earlier. He, too, could not help it. In a flash Lulu was on him: she had hold of him. She had caught him by the throat, and was brandishing Zend's spear above his head. The anger and the grief she had suppressed had found its vent.

This was Brild's work undoubtedly; she was sure of it. This was something in which Zip-Zip could have had no share. Zip-Zip, whom Lulu wanted to forgive, and had indeed forgiven already. The wound that she had just found had been caused by a blow, she was certain. She could feel a bump as well as the edges of a cut. And who but Brild could have dealt it? And, knowing he had dealt it, he had pretended to help to save Zan, aware that Zan must die in any case. Lulu's fingers tightened and sank deep into Brild's throat.

'You did it,' said Lulu. 'He died. You, too, shall die. The law,' she cried. 'The law.'

(Continued on page 250.)

### BRIDGES.

By P. M. BAKER, B.Sc., M.B.E., A.M.L.E.E., A.M.I.Mech.E.

Illustrated by BERNARD WAY.

(Continued from page 230.)

Bascule Bridges.—The swing bridge has the disadvantage that it occupies quite a lot of space with its 'counterpoise,' i.e., the weight necessary to balance the overhanging end when, as is often the case, the axis and swinging gear have to be on one bank instead of in the middle of the channel which is crossed; and to get over this difficulty, engineers devised a type of bridge known as the 'bascule' bridge, that is, one in which the moving portion takes the form of a big flap, or perhaps two flaps, which can be lifted up in order to clear the waterway. The finest bascule bridge in this country is the Tower Bridge, which consists of a high-level bridge between the towers of which there are two bascules or flaps, each carried, at its shore end, by a shaft supported by bearings, and each capable of being turned thereon into a nearly vertical position by hydraulic power. Situated under the bridge approaches and in the lower parts of the towers on each side of the river is the raising gear, operated by hydraulic engines, which are in duplicate on both sides of the river, so that if one engine breaks down the other will be able to take its place. These engines, which are of very considerable power, drive shafts carrying pinions gearing into toothed sectors under the roadway between the towers. When the flaps or bascules are down they 'abut' against one another and are bolted together. The hydraulic power for operating the engines is generated by means of steam plant which is situated in one of the

towers on the south side of the river, and the hydraulic accumulator—of which an account is given in the chapter on Hydraulics—works in one of the towers. A picture of the bridge, well known to Londoners (fig. 18), and a section showing the toothed sectors, will help you to understand this (see fig. 19).

The Scherzer, or Rolling Bridge.—There are hundreds of bascule bridges up and down the country—if we include in the name everything of the bascule type, from the Tower Bridge down to the simple flap bridges which cross the canal in the country—but, if at all large, they require a very considerable amount of power to move them, on account of the friction of the shaft in its bearings, and, in consequence, many modern bridges have been made without shafts, but arranged, as shown in the diagram (figs. 20 and 21), to roll on rails from the closed or open position. A comparatively small motor or engine is able to move a bridge of this variety. There are not many such bridges which can be seen by the general public in this country, as we have been somewhat slow in adopting this type, but those who live near Newport, Monmouthshire, may have an opportunity of seeing the one illustrated which crosses a dock entrance there. In the picture of this bridge you can see that there is a counterpoise held high up above the track to help to balance the bridge during its movement. This type of bridge is much used for new work abroad. One, which is crossed

by many tourists, is that which has been built to carry the South Indian Railway across the navigable channel from South India to Pamban Island, one of the islands in 'Adam's Bridge' on the road to Ceylon. This navigable channel



Fig. 18.—The Tower Bridge, London.

is used mainly by small ships going round the south of India on to the east coast, and the rolling bridge forms part of what may ultimately be a direct railway connection between Ceylon and India.

Transporter Bridges.—Sometimes navigable waters are crossed by means of a transporter bridge. This is hardly a bridge in the usually

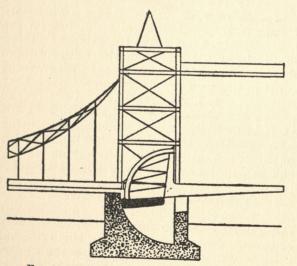


Fig. 19.—The Bascules of the Tower Bridge.

accepted sense of the term. It consists of a high-level bridge, usually of the suspension type, with stiffening girders, along which travels a trolley or carriage. The 'bridge' is

a platform which is supported by means of long cables from the trolley, and on which the road traffic is carried across the stream. The high-level bridge is at a sufficient height above the waterway to clear the masts of such ships as may have to pass under it, and the hanging platform is carried at road level. The disadvantage of the arrangement is that, as the bridge can only cross periodically, there is some delay in waiting for it at either end; but such bridges are made to take all the ordinary wheeled traffic, even heavy horsed or motor waggons. There is a transporter bridge over the Usk at Newport, the Tees at Middlesbrough, and there have been such bridges over the Seine at Rouen and over the harbour at Marseilles for several years. One at Widnes is illustrated in fig. 22.

Piers and Foundations.—The supports for a bridge—its piers and foundations—are quite as important as the superstructure which is placed

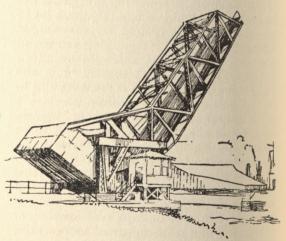


Fig. 20.—The Scherzer or Rolling Bridge.

upon them. There is very little use in erecting a fine bridge, with splendid girder work, unless the foundations on which it stands can be relied upon not to move and so endanger the whole structure. It is particularly difficult in the case of large rivers, especially those subject to heavy floods, to construct foundations and the piers which rest upon them, and great care has to be taken about this part of the work, as there is always a danger that the material around and below the foundations may be washed out by the rush of the waters around them during flood periods, in which event the

bridge will be seriously endangered and may even fall.

It must be remembered that, when we build bridge piers in the stream, they must, of necessity, partly obstruct the channel and therefore, cause an increase in the speed of the water flow at that point. This can be easily seen at many of our London bridges during the flow

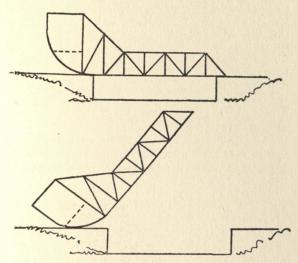


Fig. 21.—Diagram of the Scherzer Bridge.

or ebb of the tide or, perhaps, more readily at an up-stream bridge, such as that at Richmond, where those who are rowing upstream realise the extra pull which is required to get through the arches, while the fall of the water and its high speed past the piers can be readily observed by any one on the bank.

When foundations for bridge piers have to be put into a river, the method of carrying out the work depends upon such considerations as the size and depth of the river and the velocity of its flow. When the river is small it is frequently best to divert it to one side of its bed by means of a temporary dam, usually constructed by driving a row of piles into the river bed and closing up the gaps between them, in order to form a wall which will protect the part on which work is to be done from the water. The operation is naturally carried out at the period of the year when the river is at its lowest level. All the water is pumped out of the portion behind this wall and the river bottom exposed, so that it is possible to excavate the loose sand or mud from the

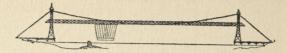


Fig. 22.
Widnes and Runcorn Transporter Bridge.

bottom, where required, in order to get down to a satisfactorily firm material on which foundations can be laid, and to build thereon masonry piers on the tops of which the bridge girders can rest.

It will occur to every one that this is not by any means always possible and that, even when it is possible, it may be very expensive. Bridge-builders, in consequence, have to consider whether it is going to be cheaper and more satisfactory to put abutments on the river bank and to cross the stream with a single

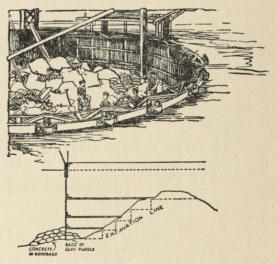


Fig. 23.

Above—Sinking Caissons for Pier at the beginning of
Forth Bridge.

Below—Inchgarvie Coffer Dam.

span, when they may have to use very heavy and costly girders, or to spend their money on piers in the stream—in which case the girders can be much smaller and lighter. This is one reason why so many different forms of bridge are to be seen across our rivers. The engineer has to consider all the requirements and difficulties of the job as well as its cost when deciding what type of bridge to adopt.

Foundations in a Large River. - When foundations have to be placed in the bottom of a large and deep river the problem becomes a particularly difficult one. Constructing a coffer dam by driving piles—which are nowadays frequently made of steel plates which interlock with each other-around the spot where the pier is required and pumping out the water, in order that the foundation and its pier may be built in the dry, is generally a difficult and costly operation, and another method of placing these foundations in position is frequently

adopted.

One or more 'caissons' for each pier are built on the river bank and floated out into position. These caissons may be cylindrical structures built of steel plates riveted together, roughly the same shape as a tin can, but large enough to form either the whole or perhaps half or a quarter of the pier. Sometimes they are provided, at the bottom, with a projecting steel edge which cuts into the soft clay and mud at the bottom of the river. There is usually a double bottom to the caisson, which is built on 'ways' just as a ship is built. launched into the water and towed to the place at which the pier has to be erected. caisson is tall enough to reach the bottom and to stand thereon without its upper edge being submerged.

It will be obvious to you that very careful soundings have to be taken on the site chosen for the bridge in order that the depths and the nature of the bottom shall be very accurately known, so that suitable positions for piers may be chosen. The caissons, sometimes thirty or forty feet in diameter, are towed, generally by steam tugs, to their places, where they are allowed to fill with water by opening a valve and sink so that they stand on the bottom at

the selected spot.

Down the centre, or in some other convenient part of the caisson, is a tube large enough for men and materials to pass up and down, through which a series of ladders proceed through double doors forming an 'air lock' to the space below the double bottom. By pumping air into this space it is possible to keep it clear of water, so that men may actually proceed through the doors in the lower diaphragm, or bottom, on to the river bed to excavate a suitable bearing for the caisson. The material from the river bed is removed through the air lock and up the central tube to a platform built on the top of the caisson,

from which it can be dumped in the stream or removed in lighters (see fig. 23).

When this operation is complete the caisson stands with its lower end embedded in the firm material which lies below the river mud. The interior of the caisson can then be filled up with concrete so that it provides a solid column on which the bridge building can pro-Many large cantilever bridges have had their piers provided in this way. It is, in fact, the method usually adopted in those cases in which the depth of water and rate of flow are such that it is impossible or difficult to expose the river bed by means of a coffer dam, as the caisson forms its own dam within which the men can work while below water level. The great piers carrying the Forth Bridge were constructed in this way: at each point of support four caissons were provided. one to carry each leg of the great superstructure to be erected over them. Similarly, the Tay Bridge, which is a structure of a totally different character, as it consists of many girder spans, is erected on cylinders sunk into the river bed.

In tropical countries, where the difference between the flow of the river in the dry weather and that after the rains is very great indeed, engineers often construct foundations during the period of minimum flow when the river is nearly dry. While the bridge is being constructed a temporary bridge carried on 'crib' piers—piles of sleepers arranged in the form of squares one above another—is usually built to carry the construction railway, which is laid in the river bed to enable the work to be carried out with the greatest possible speed, in order that the piers may be as far advanced as possible before the flood time causes them to

be endangered.

Many of the Indian rivers, some of whiche.g., the Ganges and the Indus-run full when the snows melt in the Himalayas, are crossed by bridges for which the foundations have been constructed in this manner, and in such rivers there is always the danger that the rush of flood waters will wash out the materials around and under the foundations of the bridges. Older engineers used to drive heavy timber piles into the river bed and right down into the ballast below the mud on which to build piers (as at Waterloo); nowadays we sometimes use piles of ferro-concrete, or we sink cast-iron cylinders in a similar manner.

(Continued on page 255.)



AN UNSELFISH GUARDIAN.

#### DO YOU KNOW?

THAT the total eclipse of June 29, 1927, was the first visible in England since 1724? That there will be another in 1999, visible

across Cornwall?

That an eclipse of the Sun is due to the Moon interposing itself between us and the Sun, and so cutting off the light of the Moon?

That a total eclipse of the Sun is only visible from a very restricted region of the Earth?

That a total eclipse of the Moon is visible over an entire hemisphere at a time?

That two eclipses must happen every year, both

being of the Sun?

That seven eclipses may happen in one year, of which five may be of the Sun, and two of the Moon ?

That the breadth of the track for the 1927 eclipse was not quite thirty miles?

That it crossed this country from Pwllheli in the

west to Hartlepool in the east?

That the duration of totality for any eclipse cannot exceed eight minutes, and is usually less? That the duration of totality during the 1927 eclipse is from 22 to 24 seconds in this country?

That the darkness during a total eclipse of the Sun varies greatly? That it sometimes gets so dark that persons have great difficulty in seeing each other, while at other times it is possible to read a newspaper?

That birds and animals behave very strangely during an eclipse, showing signs of fear and

uneasiness?

That the Chinese and certain other nations believe an eclipse to be due to a dragon eating up the Sun; and that they assemble in great crowds, beating drums and shouting at the top of their voices, in order to scare it away?

That the Turks were in the habit of shooting

at the eclipsed Sun for the same reason?

That the principal feature of a total eclipse of the Sun is the 'corona,' a wonderful halo of pearl-white light which surrounds the eclipsed Sun?

That this is never seen except during a total eclipse, and that astronomers travel to the ends of the Earth in order to study it at every possible

opportunity?

That the form of the Corona varies with the number of spots on the Sun? That at sunspot maximum, the Corona is small and fairly evenly distributed round the Sun, but at sunspot minimum it takes the form of two main wings on opposite sides of the Sun?

That astronomers believe it to be composed of dust and other waste products of the Sun, driven off by the pressure of the Sun's radiation in the

same manner as the tail of a comet ?

J. A. LLOYD, F.R.A.S.

### THE SOCIABLE 'BUS

TT'S a treat not to have untidy men throwing matches over one,' said the old 'bus.

'But it's lonely. I always was a sociable sort of fellow till a lamp-post ran into me and

I came here!'

Two old 'buses were talking as they stood in the hospital. Have you ever seen a 'bus There are several of them just outside the City, where the London 'buses go when they are hurt or old.

'I hope I never see another person,' said the first, who was called Number 33. 'Horrid little creatures on props, without any wheels. They're afraid of us, too; they run when they

see us coming.'

'I can't see how they get on without me,' sighed the sociable Number 88. 'There's the old lady from Mill Road who goes marketing on Wednesdays. I used to have to wait a very long time while she got on. Then there's the little boy who used to come running up with his last piece of toast in his hand. I'm sure he's late for school now I'm not there. And the man who went every Sunday to see his old mother . . .'
'Ugh! It makes my engine feel run down

to think of people,' said his friend.

Just then two men came along The Sociable 'Bus tried to puff out his cheeks so that the gash made by the lamp-post didn't show too much.

'That one will do,' said one of them, point-

ing to him.

They pushed the happy 'bus from amongst his fellows. Then they mended him and gave him a coat of paint. Later, another man, in a white coat, started the engine.

'Fit for a king,' he said.

'Hurrah!' sang the 'bus, as he felt his engine getting warmer and warmer.

going to be a present for the King!

Of course the old fellow was mistaken, because most kings don't ride in 'buses, but there were good times coming for him all the same. He was no longer Number 88, but a Special, whose duty it was to take parties of children for picnics. Or sometimes on Sunday afternoons he took a load of tired fathers out into the country. Coming back they would sing jolly songs, and they always brought hon e big bunches of flowers.

Then the 'bus would smile very merrily to himself, for he loved to think he had made so many people happy. MARGARET HUSKINS.

### SALLY AND SILLY.

I SHALL not allow it,' said Colonel Davenant, putting down his daughter's letter. 'I may be old-fashioned; very likely I am, but I don't consider it safe, and I shall not allow it.' Priscilla looked up with anxious blue eyes.

'Is it something Sally wants to do?' she

asked.

'Yes,' replied her mother. 'Sally has written saying that she means to walk home to-day, by herself, through the forest. Father is quite right—it would not be safe for her to go alone. It is a very lonely read, and there are so many tramps and rough people about. I can't think what has put such an idea into her head—do you know, Silly?'

Priscilla nodded. 'She thinks she might have an adventure. Sally loves adventures.'

Colonel Davenant snorted. 'Adventures! nonsense! Sally must wait till the afternoon, and come home in the car with the others, as I arranged. I shall go and telephone to her at once.'

'Silly, you must explain to Sally when she arrives,' went on Mrs. Davenant, 'how sorry Father and I are that we shall not be at home to welcome her. I wish we could have put off going to-day, but you must tell her how it is we can't. She will be here by tea-time, but we shall not be back till ten or eleven.'

Silly nodded. She was eagerly looking forward to the long evening with Sally all to herself. Tall, sixteen-year-old Sally did not often take much notice of her devoted little sister of ten, but to-night she would have no one else to talk to, and Silly would be the first

to hear all her news.

The long day passed away happily enough. Silly waved good-byes to her father and mother from the doorstep, and watched the big car slide away down the drive. Then she ran off to arrange flowers in Sally's room, brush and comb the dogs, and clean out the rabbit hutches and canary cage, all ready to welcome her home. Long before tea-time she was looking out for the car from the windows, and listening for the first 'toot' of the horn through the trees. Time passed away-five o'clock struck half-past five-six; Sally was very late. Old Cook came bustling upstairs several times and tried to persuade Silly to have her tea, but she only took a piece of bread-and-butter to the window seat and watched on.

Half-past six struck, and the postman came stumping up the drive. Silly ran down to meet him. Perhaps there might be a post-card from Sally to say that she was not coming till later. No, there was nothing but a soft, limp parcel, and it was addressed to Silly herself in a strange hand-writing. The little girl took it indoors and pulled off the string without much eagerness. No present could make up for the disappointment of Sally's not coming. Inside there was another wrapping of white tissue paper; she unfolded this, and then dropped the parcel with a cry.

It was full of hair—a great mass of curly, red-gold hair—Sally's hair! Silly knew it at once. There could be no possible doubt. What other girl in the world had hair like Sally's? Lying with it was a half-sheet of note paper, on which was written, 'Break it to your father and mother as gently as you can.'

Silly turned very white. She felt cold all over and rather sick. What had happened to Sally? Had somebody murdered her, and cut off her hair? Oh, surely, surely not! Perhaps she had been captured, and was imprisoned somewhere till a ransom should be paid for her. Silly remembered reading of such things in her history lessons. But who could have done it? The Tremaynes, those school friends with whom she had been staying? No-it must have been on the journey home. Silly well knew how wilful and naughty Sally could be at times. Very likely she had disobeyed her father and walked home through the forest alone. Colonel Davenant had said it was not safe. Mrs. Davenant had explained that there were tramps and rough people in the forest. Oh, where was Sally now? Robbed of all her money, her beautiful hair cut of, tied to a tree, perhaps, and left to starve!

As these terrible ideas rushed through her brain, Silly felt that nothing on earth mattered except to find and rescue Sally as quickly as possible. She never thought of waiting to consult any grown-up person; she simply started off, and ran down the garden towards the forest as fast as her legs could carry her. To climb the fence was an easy matter, and after a few minutes of pushing through thick bushes and bracken, she was in the road—the lonely forest road, where she had never been

allowed to go by herself.

(Concluded on page 279.)



"'You shall not save him a third time.'"

### THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' 'Princess Ooma,' &c. Illustrated by E. S. FARMER.

(Continued from page 243.)

CHAPTER XXVIII. BOBO'S JUSTICE.

IT was just as the spear descended that Bobo caught it; that he hurled himself across the cave as Lulu had hurled herself. Even then he would not have been in time had not his reach been so long. As it was, choking still, Brild felt the grip on his throat relax. His bloodshot eyes cleared enough to let him see that Bobo had hold of the spear shaft, his hand on Lulu's He could just realise that once again his father had come to his rescue. But now Lulu was not submissive, but fiercely sullen. Not beaten-determined she would

'You shall not save him for a third time, Bobo,' she was saying through clenched teeth. Above the roaring that still filled his ears Brild could hear her. 'If you stop me killing him now, I will kill him later.' And then, to his utter horror, Brild heard his father answer

Be quiet and let me speak. I will deal fairly, but it is I who will deliver judgment.'

'Judgment according to the law?' Lulu challenged.

'Judgment according to the law,' Bobo

actually promised

Bobo was, in truth, in a position that irked and puzzled him, and out of which for the moment he could see no easy way. And he had had more than enough of disturbances. Very definitely he wanted peace again, and leisure, but how was he to obtain them? If he did not accede to Lulu's demand, was it not probable she would part company with him definitely, taking, of course, Zip-Zip with her? Before, he could have dealt with her as he had told Brild. He could have made of Zan a hostage and so had a hold over Lulu, but now he had none. She could slip away when hunting or fishing at any time, and Brild's revelations had made it clear how independent she was growing. Life alone with Brild in the cave would be far from satisfactory; it would throw too much upon himself of menial tasks. On the other hand, if Lulu were allowed to kill Brild, the three of them remaining would still form too small a community for comfort. Zan

was gone past recall; certainly no one else could be spared. Bobo felt he could not possibly leave his urgent concerns to occupy himself with other matters. But no mere quibble would avail him now, he had to recognise, as he faced his niece. With eyebrows drawn together, a gleam of teeth between her lips, she was glaring at him, relentless in her wrath.

'Be quick,' she warned. 'I will not wait long, and it will not take me long to deal

with that.'

With a finger that quivered with scorn she pointed at Brild, while she looked longingly at the spear to which Bobo still held. Afraid that, unexpectedly, she might regain possession of it, Bobo retreated towards the fire, beckening her to follow. Close to Zan's body he took his stand.

'Show me the wound,' said Bobo, to gain time.

'Look! Here it is,' Lulu answered. Kneeling by Zan, she parted his thick hair. 'And who but Brild could have dealt it?' she argued, as already she had argued with herself. 'We left Zan swimming, I and Zip-Zip. You were making pictures. And they he says so-'she pointed from Zan to Brild-' they went fishing together. Look! look!' she clamoured.

But Bobo had looked at the wound already. He could not deny its existence. There was no need to look again. And suddenly he too was angry, as angry as Lulu; face to face, apparently, with a blank wall. Brild was at the root of all the trouble. The evidence against him was overwhelming. He had done this thing. Let him mend it, then, if he would save himself. When all was going pleasantly, he had worked havoc, past his father's remedying. Exasperated, Bobo pointed to Zan's head.

'You struck Zan. You took the life from him,' he said to Brild. 'Then put it back it

you would save your own.'

'Yes, put it back,' said Lulu, almost gaily. This time Bobo was acting fairly, she admitted Of course Brild could not do what was required of him. A moment more and he would lie where Zan was lying. No, she would fling him

out to feed the seagulls, as he had meant the turtle to feed on Zan. For Brild there should be no burial with due ceremonies. No provision should be made for Brild's wandering spirit. She smiled, while Brild looked from her pitiless face to his father's. That sentence had been pronounced he was only too well aware, but he yet clung desperately to the forlornest hope. He knew, as he looked at them, that his judges knew the magnitude of the task that they had set him; that if he once acknowledged he could not satisfy them, the following second was his very last. Half crazed in consequence, he could not reason. His brain could only grope along familiar lines. He did not think he could escape; he only struggled to postpone somehow the inevit-

'When I feel ill,' said Brild, half aloud, 'if

I eat something I feel better.'

Hardly conscious of what he was doing, he crawled to Zan, and snatched at a bit of the raw fish he had left beside the fire earlier, ready for toasting. Against Zan's teeth he pressed it, trying to ram it down Zan's throat in desperation.

'Eat, Zan! Eat!' Brild urged.

'Zan cannot eat,' said Lulu's scoffing voice behind him. Her hand was reaching for the spear already; Brild saw its shadow. Frenzied, he pressed harder. A little juice ran out and trickled down Zan's chin, blood red.

'Ah!' said Lulu softly.

'Wait! Wait!' Brild heard Bobo shout, while through a fog of fear he glimpsed that in some strange fashion Zan's face was altering, and his throat. Zan's throat was working. Its muscles rippled; a drop or two of fish juice was slipping down. And as Brild squeezed again, Zan swallowed. His eyes opened. Zan raised his head a fraction of an inch and looked at Lulu.

'Lulu, I got a bone,' said Zan. He groped unsteadily at his tunic. He smiled—an impish smile. Then he looked in turn at Zip-Zip, Bobo, and Brild. His brain seemed still

befogged a little.

'So I came back?' asked Zan.

CHAPTER XXIX. ZAN'S SHARE.

'YES,' said Bobo, quietly. Of all those in the cave, he was the least astonished. He had lived long enough to see many a thing as impossible apparently as Zan's revival happen. Even Lulu was far more taken aback than was he. For the moment Bobo was in complete command. And suddenly he thrust the spear into Lulu's hand.

'Hit Brild now,' he urged, to her further bewilderment. 'But if you hit too hard, you

also must bring back the life.'

And at that, Lulu looked at him a trifle less bemused as her fingers closed around the spear shaft. She was still somewhat at sea, but not too bewildered to tell herself that after all Bobo was trying to get the better of her again. She was still resolved he should not trick her. She was inclined too accept his challenge, and if indeed she should hit too hard, would it matter? Law or no law, surely Brild deserved to die? It was only by the luckiest chance Zan had escaped, since she and Bobo had been unable to help. Zip-Zip could not have vanquished the turtle. So small had she looked against the cliff and it so huge. Had not the ledge crumbled beneath the added weight, the turtle would in all probability have gorged itself on her and on Zan too. True, Brild had thought of feeding Zan, but only under compulsion. There was nothing to be said in defence of Brild. Nothing.

And moreover, Lulu believed that her own position was stronger far than Bobo seemed to realise. That she could reckon confidently on something that he, apparently, had overlooked. Bobo talked as if he could punish her if he chose. Lulu was certain she could defy him with impunity if she wished. Hrump might not be as strong as all the might of the water, but Bobo as compared with him was nothing. And to Hrump's affection something new had been added that day. Since he had felt the spear point he had submitted himself to her completely, Lulu felt. She had gained a mastery over him that was definite. He was hers, not only her friend but her servant. What could Bobo do? What, indeed? She could kill Brild without his leave, and should he interfere, she had but to summon Hrump. Hrump was close, resting; weary and buffeted,

but he would come.

Up rose the spear above Brild's cowering head. Then, ere it fell, Lulu paused, and sent Brild spinning with a kick instead.

'Go, vermin,' she flung at him. 'Go for this time with your life. But remember, I shall not forget. I may yet punish when I wish it.'

(Continued on page 258.)

### MY DIARY.

Written and Illustrated by RUTH COBB.

IX.-SOME FAMOUS WOMEN.

In the middle of the eighteenth century, there lived two very great friends. They were Lady Eleanor Butler and the Hon. Sarah Ponsonby. They loved each other so much that they decided that they never wanted to do anything else, but to live together, for the rest of their lives. Their families had different ideas for



Mrs. Sherwood as a child.

them, and wished them each to marry and have homes of their own.

But the two friends thought differently. When Lady Eleanor was thirty-three, and Sarah only seventeen, they ran away together. The first attempt was unsuccessful, and they were found and brought back home again.

A few years later they ran away again; by this time Sarah was probably of age. She dressed in boy's clothes, and passed as a footman to the lady she was travelling with, and the disguise helped their escape. Their families then seem to have recognised the inevitable, and made no further opposition. They were followed soon after by an Irish retainer, Mary Carlyle, who remained with them always. They took a curious cottage, built in the Gothic style, at Plas Newydd in the valley of Llangollen in North Wales. Here they lived for the rest of their lives, never sleeping away from the house once. They became the curiosities of the neighbourhood, and one of the chief sights of the place. There must have

been some special charm about these two friends, apart from their peculiarities, for they were visited by many well-known people of the day, among them, Sir Walter Scott, Wordsworth, De Quincey, the Duke of Wellington, and Miss Seward.

It was like a little court, and the two ladies were somewhat autocratic. They would refuse to see certain people if the fancy took them, merely giving permission to see the grounds and the house.

Their appearance was peculiar. They dressed like men, and had short hair, a fashion unusual in those days.

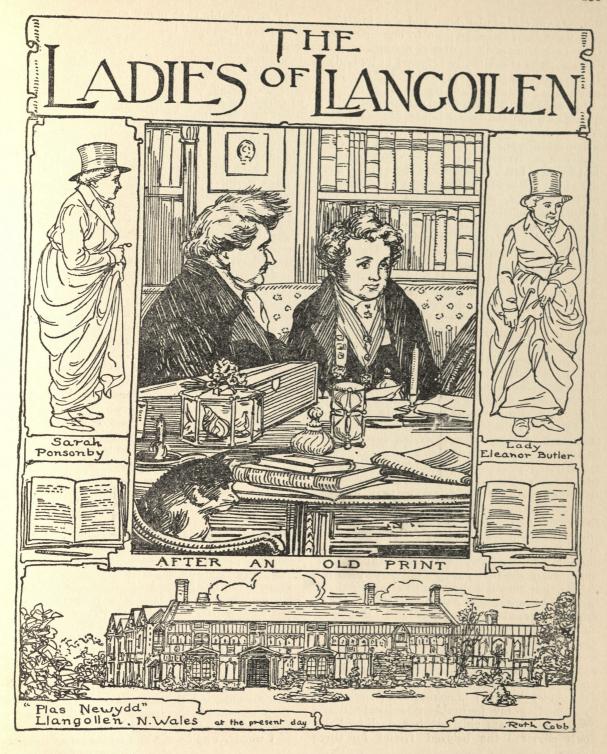


Hannah More.

Charles Mathews, the famous actor, describes how they looked from the stage, seated in the box of a theatre in Wales, where he was performing.

'Oh, such curiosities! I was nearly convulsed. I could scarcely get on for the first ten minutes, after my eye caught them. As they are seated, there is not one point to distinguish them from men; the dressing and powdering of the hair, their well-starched neck cloths; the upper part of their habits which they always wear, even at a dinner party, made precisely like men's coats, and regular beaver black hats, they looked exactly like two respectable superannuated old clergymen.'

These two friends both kept diaries, telling



the order of their quiet days, and showing the ecstatic state of their devotion to one another. Only fragments of these diaries remain.

Sarah, who is constantly referred to by Lady Eleanor as 'My Sally,' 'My beloved,' 'the joy of my life,' writes on January 1st, 1798:

'Rose at eight. Soft damp air, soaking rain. Two fine white dimity petticoats, Mary's New Year gifts. Nine, breakfast, soaking rain, half-past nine till three, soaking rain, gloomy heavy day. Arranged our books and papers, looked up last year's accounts. Writing, drawing. Poor Mary Green sent us a present of twelve eggs, her New Year's gift. Little John Jones of Churk came to see how things went on in the garden. Rain over, still soft Writing, drawing. Threedamp day. dinner, roast beef, plum pudding. Half-past three till nine-still soft and bright; reading, making an account book, then reading to my beloved, while she worked her purse. Nine till twelve, in the dressing-room reading, writing. A day of sweet retirement.'

Lady Eleanor writes in her diary, much in

the same strain.

September 18th. Rose at seven, soft morning, inclined to rain; went the rounds after breakfast. Our shoes from Churk. Vile. Scolded Thomas for growing fat. From ten till one reading and writing to my beloved,' and so on in the same strain till the end of the day. 'Papered our hair, an interrupted delightful day.' She could write more vehemently. The ladies of Llangollen were evidently extremely particular that their peculiar clothes should be made just as they wanted them. She says: 'The habits we have so long expected arrived by the stage coach—that detestable Dounes-instead of the dark violet colour, we so expressly ordered; he sent a vulgar ordinary snuff colour, like a Farmer's coat, and in place of the plain, simple buttons which we chose, has sent a paltry dullish taudry three coloured thing, like a Fairing. Just looked at them, observed with fury the total mistake of our order, packed them up, and returned them to him, by the same coach in which they came.'

Lady Eleanor evidently intended that her diary should be kept, and perhaps read by others, in the future, for in the last entry that she made, she says: 'Looking over, correcting, and binding my journal.' She lived till she was ninety years old, but her darling Sally only survived the beloved friend for three

years.

It is probable that many more women than men have destroyed the diaries that they have kept, fearful lest others should see their secret thoughts. Several have come down to us, and have been published, that were written by women, famous in their own day, for a variety of reasons. Their descendants probably recognised that anything to with them would be of interest to others, and so the diaries were kept, Such were those written by Mrs. Sherwood Hannah More, Lady Holland, and Caroline Fox. Mrs. Sherwood was the author of a well. known children's book, The Fairchild Family much read in the early nineteenth century. She was out in India when she first married and kept a detailed diary of her life and adventures there. In later life she used this diary in writing her reminiscences, of which there were fifteen manuscript volumes—half a million words. Mrs. Sherwood seems to have kept a diary when she was a very tiny child, for a book exists which is believed to have been written by her and mentioning a visit to her grandfather in 1799, when she was only a few years old. It is possibly one of the 'youngest' diaries extant. The entries show the kind of things she was interested in at that early

'Mrs. Nash was here, and we had some beautiful white mutton, and we ate some pork, and Mamma was angry.' And on another day, Grandpapa had a bite in the old pool at the Court, and he let me pull it up and there was an eel, the first fish I ever caught.'

(Concluded on page 264.)

#### ALOFT.

IN the spring, in London—everywhere—one sees a great deal of tidying up, repainting, cleaning. One day in May-seen only by a very few people .—a figure suddenly began swarming up the flagstaff on the top of Buckingham Palace. Up, up he went, becoming at last a black speck close to the weathercock, which, apparently, he was cleaning. Hardly any one seemed to observe him, but there he was, diligently working away in mid-air, and enjoying perhaps the finest view in London, though probably one that no one else will have the chance of seeing.

He stayed there on his lofty perch for about half-an-hour, and then—the job evidently having been completed - swarmed down with amazing

speed, and disappeared.

I wonder who he was and where he went. BEATRICE WORTLEY.

### BRIDGES.

By P. M. BAKER, B.Sc., M.B.E., A.M.I.E.E., A.M.I.Mech.E.

\*\*Illustrated by Bernard Way.\*\*

(Continued from page 246.)

The exection of bridges.—With all the types of bridges which are called for, by the varying conditions for which they are required, it is natural that the methods which have to be adopted in erecting them must also vary widely. For bridges of moderate or small size it is probable that the simplest method is to build a heavy framework, scaffolding or gantry, to support the girders during the period of construction. The girders are constructed by their maker in his bridge-building yard, where he has cranes and other facilities for handling them, and they are then carried to the place where the bridge is to be erected in pieces as large as possible and joined up in position, supported by the gantry.

For lifting these parts into place, hand or steam cranes are usually used, but occasionally, particularly in small works, when there is no crane available, a 'derrick' of some sort has to be rigged up. A strong pole, supported by guy-ropes, carries at its upper end a pulley block, through which a rope or chain is passed to a winch to enable the heavy girders to be slung and raised into position. When the circumstances permit, and particularly when the work has to be done at high speed, as in the case of the breakdown of a bridge, two travelling steam cranes, one to lift each end of the girder and to carry it into position, are a very useful and handy arrangement.

When the main girders have been placed on their supports, the cross girders can be fixed in position, riveted to their brackets, and the supporting gantry removed.

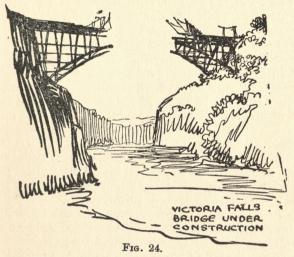
This may seem a simple procedure as you read these articles, but the weights to be lifted may be considerable, and much care has to be taken to avoid dropping a girder and killing or injuring the men working near, and it is not always possible to adopt it. The bridge may have to cross a busy road or railway on which the traffic must not be interrupted, or it may be intended to span a deep or swift river, so that the erection of framework or gantry would be impracticable. This is, in fact, generally the case with very large bridges, and other methods have to be adopted.

Launching of Bridges.—Bridges which are intended to span important railways or roads are very often built resting on heavy timbers, or trestles, placed to one side of the road to be crossed. Sometimes, indeed, the whole bridge is built in this special position, and is then transferred to specially built trucks for moving it into its permanent position. The trucks are generally provided with hydraulic jacks or other means of raising the structure, when it is complete, from the temporary supports on which it rests. When the bridge has been lifted on the trucks, which travel on the completed portion of the railway, or on a special construction railway if it is a road bridge which is being made, the whole is hauled as far as the existing line will allow.

Sometimes temporary wooden beams will have been erected across the span, carrying rails on which the trucks under the forward end can travel; at others a special 'launching' girder, longer than the span and counterpoised at its near end, is used to carry the bridge across. Either the whole bridge or part of it—one of its main girders, for instance—may be transferred in this way to its permanent resting-place, and then lowered by means of the lifting gear mentioned above on to the already prepared piers. This operation, when the whole bridge is moved, is known as 'launching' the bridge.

Sometimes a bridge which is intended to replace a structure which is either worn out or has become too small or light to carry modern loads is launched sideways into place. Thus, in one example which the author has in mind, a new bridge had to be built to carry one of the oldest railways in the world over a main road, to replace two small arches of an old viaduct which, by their size, considerably impeded the road traffic. The new plate girder bridge was built, complete, at one side of the old arches, resting on heavy trestles, so that it spanned the roadway, and its main girders, cross girders, floor plates, sleepers and rails were all fixed completely in position without the traffic on the railway or road being interfered with at all. When the new bridge was ready, it was raised on small trucks

running on rails on the tops of the trestles, which stood at right angles to the railway, the railway traffic was stopped, the old arches, which had been very largely removed in readiness for the change, were cleared away, and the new bridge was hauled into position, the whole operation involving only twelve hours' stoppage of railway work.



A great many bridges are dealt with somewhat in this way, particularly in centres of crowded traffic, such as in big cities, where it is most important that railway traffic shall be continuous; but you will recognise that there are almost always special circumstances which guide the engineer in deciding which method to adopt, and that, therefore, the methods described can only be taken as an indication of what can be, and is sometimes, done. The diagrams given in fig. 7 (page 197) show the main girder of a bridge being moved across into position in this way.

Erection of large Bridges.—The erection of a large bridge is a problem which calls for much skill and ingenuity on the part of the engineer. We have already seen how the foundations and piers can be built, and when this has been done the superstructure has to be erected, and here the methods differ so widely that we can only mention a few of them as examples. Many large cantilever bridges have their members built up in position. This can be seen from the picture in fig. 24, which shows the Victoria Falls bridge in the process of erection, while in the next picture (fig. 25) the Forth Bridge is shown. Sometimes a temporary suspension

bridge is constructed to support the members during the erection period, when, as they are not completely connected up, they are in an unsafe position and may be unable to carry their own weight.

In some cantilever bridges the connecting girders are constructed on the banks of the river near the bridge, launched on pontoons, i.e., big closed floats, and towed into position under the gaps in the bridge which they are to occupy. Each is then hoisted into place by powerful tackle at its ends and temporarily fixed in position by bolts inserted in the rivetholes to hold them together while the riveting is being completed.

In the case of the Forth Bridge the double cantilevers were built in position, the large tubular lower members being built of plates, curved and drilled in the workshop on the bank, and slung into place to be riveted to the existing work; and the small ties and struts similarly prepared in the shops and slung into position for fixing. An interesting difficulty occurred. The work had been very carefully set out and measured off, but when the last girders came to be put into place it was found that the rivet-holes



Fig. 25.—How the Forth Bridge was erected.

were not opposite to one another. The load caused by the other girders hanging on the other sides of the double cantilevers caused them to deflect a little, but sufficiently, in so large a structure, to make a gap of some inches. How was this to be overcome? The solution adopted was that of heating the upper members so as to cause expansion. This was done and fires were lighted under suitable members. The expansion was sufficient, the holes came opposite, and the bolts were duly put into position. One can understand the anxiety of the engineers in charge during this operation and admire their skill and resourcefulness. A mishap might have involved great damage to this grand and costly structure and perhaps the loss of many lives.

(Continued on page 267.)



"Into the cave the forest folk came filing."

# THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' The Hidden City,' Princess Ooma,' &c. Illustrated by E. S. FARMER.

(Continued from page 251.)

'AH!' said Bobo to himself, discreetly. had not overlooked as much as Lulu had not overlooked as much as Lulu had supposed. He had been too deeply impressed, as the little mammoth at her bidding did her will. No, he had not forgotten Hrump. It was Lulu who had forgotten how thoroughly her uncle knew her.

'She does not kill in cold blood,' Bobo had told himself. He had banked upon the knowledge and he had won. But he had no desire to impress the fact upon his niece; he was too thankful peace was in sight again at the

After all, his disturbed morning had not been quite unprofitable. He had seen as interesting a sight as he had hoped, though there had been no fight between Hrump and the turtle.

He picked up the necklace for the second time that day, fingering it lovingly, looking out of the corner of his eye at Zip-Zip, who was hovering uncertainly in the background, not sure if her place was with Brild amidst the shadows, or if Lulu would admit her to full companionship again.

If Brild could guess more correctly than she, still so conscious of her guilt, at Lulu's attitude, so could Bobo. And the quicker complete tranquillity was obtained, the better. And Bobo enjoyed playing with Lulu, while she

thought she played with him.

'When,' said Bobo deliberately, 'I have finished carving Zan and yourself, Lulu, I will carve Zip-Zip dangling against the cliff. If I do not remember clearly, we can make her

dangle for us again.'
'No! no!' said Lulu impulsively, while Bobo smiled secretly. Yes, she was quick to take the opening he had given her. He smiled

still, listening.

'Zip-Zip,' said Lulu carelessly, 'how shall

we mend your tunic? It is too short.'

'With a strip of pig skin,' said Zan, unexpectedly. He had eaten all the fish within his reach by this time, and was feeling much better. He had had a long drink too from the stream that ran through the cave, and had washed his wounds. And he had a right to take a part in the discussion, and in all discussions henceforth, he thought. He had certainly proved

There was the bone still to show, he himself. remembered, and he produced it.

'Look, Zip-Zip,' he said. He did not know that Zip-Zip had been against him, but had he known, he would have born her no malice, Zan was not vindictive, and in a sense it was very pleasing that he should have been the cause of such a pother. 'Look, Zip-Zip,' he repeated. 'It might be your father's.'

'It might be,' Zip-Zip assented, looking at the bone almost with interest. The old horror had quite vanished, she was finding to her boundless relief, since she had dared to face it. She did not even object when Zan, not to be parted from his trophy, hung it round his neck on a spare bowstring. Nor did Lulu, quite indulgent to Zan restored for the moment. Zan had turned her thoughts besides in a fresh direction. She had remembered she did not know as yet how her magic had prospered. Zan did not doubt it had been successful; nor, of course, did she. But surely it was time the forest folk appeared? She began to listen for them intently.

'They are coming,' she heard Brild murmur. He alone, outcast still, had been waiting for some such opportunity, and had also been watching dolefully the fish disappear. He had been listening in consequence for some time for footsteps, and had thus heard the first faint reverberations before Lulu. 'Hark, they are singing in triumph too,' he ventured to remark. And into the cave a triumphant youl indeed

was penetrating.

'We have brought the pig. brought the pig.' It was rapidly growing louder. 'By the aid of your magic,' sang voices nearing, 'we have killed many pig, as we knew that we should. We bring you your share, magic worker.'

'Your share and mine, Lulu,' said Lan,

firmly.

#### CHAPTER XXX. LULU'S ARMY.

AND, as Zan spoke, into the cave the forest folk came filing six men and six women. The women were carrying a great pig, dead, and slung by its four feet to a pole. It was so heavy their shoulders sagged beneath its weight. Three of the men marched in front

and three behind, apparently as an advance and rear-guard. The pig was lowered and laid at Lulu's feet; and then, a little hastily, the bearers retreated to the cave entrance, where they lingered in a group.

'We have brought you your share, magic worker,' they chanted again, and stood awaiting Lulu's approval. But before she could reply Zan, who had ranged himself beside her,

answered for her.

'It is a good share. We are pleased,' Zan pronounced, at which Lulu put her hand on his shoulder to push him aside. Then, as Zan braced himself to resist, determined to stand upon the rights he considered he had now acquired, on an impulse Lulu took him by the hand instead.

'This,' said Lulu, swinging the hand she held, 'this is the son of a great chief. Come with me, you people, and help me to put him in his father's place, and you shall be re-

warded,' she promised lavishly.

'In my father's place?' she heard Zan whisper. It seemed to him, as unaware hitherto of her intentions as Bobo had been, that this was a direct acknowledgment of his worth, earned by himself. It took him aback a little, it was so unexpected, but he rallied to it. In turn he looked invitingly at the forest folk. It had seemed to Lulu she had chosen a moment when they would be easy to sway, since they were so thoroughly satisfied. She had thought some immediate response would be forthcoming. But instead, the group at the cave entrance looked at her uncertainly. There was a shuffling of feet, and from behind her came a murmur from Zip-Zip.

'Lulu, they are so few,' Zip-Zip ventured, timid still, but hard driven. 'That is why I did it too.' And at that the man who had been to the cave the night before, and who was standing a little in advance of his companions,

spoke also.

'This is all of us, magic worker,' he explained. 'How could we help to make a chief,

we few?'

'All of you?' Lulu echoed. If this was something she had not foreseen, she was restive at the thought of a further check. A short while since she had almost resigned herself to disappointment; but Zan's revival had set her where she stood before, and the more determined to have her way. Zip-Zip had not been wrong when she had told Brild that Lulu would not be influenced by the fact that the

forest people were not numerous. And there was more now to egg Lulu on. Zan was looking at her in a fashion that provoked her. If he thought she could succeed, succeed she must. And there was still Hrump on whom she could reckon. She turned and called to him, and he came as she had known he would. As he drew near, the forest folk shrank back.

'You need not be afraid,' Lulu assured them. 'He shall not harm you. His strength shall be turned only against our enemies. I will lead you riding on his back,' she promised.

The faces opposite her were lightening, she could see. And she could see almost as plainly herself leading the little clan in triumph. She was caught up as she had been when she made the magic. Something more than herself she

felt, as she had felt then.

'Be ready to-morow,' she told the forest folk while still she held them. 'Feast to-night, and I will come early. Where the plain ends we will meet.' And now she had swept them away. They were looking at her almost as hopefully as was Zan. But the thought of the feast awaiting them, while it had encouraged them, had set them moving. They were slipping out of the cave, smiling at her.

'It is a great feast,' the last of all called 'It is of your providing. We will

trust to you.'

But if the forest people were won, and Zan needed no winning, what of those who remained? Lulu turned to deal with the three behind her as the cave emptied of the others.

'You are coming with me, Zip-Zip?' she

'Yes,' Zip-Zip assented fervently. Whatever the end, she no longer reckoned with it. She was only too glad to follow once more if permitted Lulu had expected no less. But the ground felt still more firm beneath her now that Zip-

Zip was hers again so entirely.
'And you?' she asked, looking at her uncle. Still vexed with Bobo, she was not sure she did not wish him to remain behind. But, if he did not come, who, she recalled in time, would chronicle her doings worthily and finish the necklace as she had intended it should be finished?

'You could make pictures on slabs of wood to hang around the huts,' it occurred to her to

suggest as an attraction.

'I could,' Bobo admitted. All the arguments he had used before held good. To remain alone with Brild in the cave he still felt to be impossible. He meant to go with Lulu now in any case. But her suggestion threw a glamour round his going that was not unwelcome. He had often felt of late that his pictures ought to be more widely known. It was quite pleasing to find she thought so too.

'The huts would certainly look much handsomer if I adorned them,' he reflected aloud. 'I

come.'

And now there but remained Brild's fate to settle. Lulu looked at Brild dubiously. He would come too, unless disposed of, for he would not dare to remain alone. Again Lulu fingered her spear. Should she make herself kill deliberately, after all? Was it worth while? It would be an effort, for by now she was tired. And why should not Brild witness her triumph? It would disgust him.

'Skin that pig and cook it, and give the skin to Zip-Zip to use,' she told him curtly. And thus reprieved again, Brild hastened to obey. Churruk, still distant, was not so for midable at the moment as his cousin. Anxiously Brild strove to establish himself further.

'I could carry some clay for you, Father,' said Brild. The clay, it is true, would be heavy. But if he were carrying it, Bobo would not readily abandon him, Brild calculated.

'When you have cooked the pig, we will look for clay,' Bobo agreed. And Zan, bubbling over, began to dance the weird dance he had invented round about the caves.

'Soon I shall be a great chief,' sang Zan.
'Not without my help,' Lulu felt it was full time to remind him.

(Continued on page 266.)

# RED SHIRTS AND BLACK.

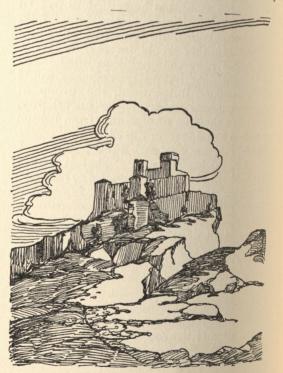
A LONG while ago—some sixty years and more—our grandmothers and great-aunts wore shirts that were very much like our modern blouses, and which they called garibaldis. It seems a strange name to us now, and we wonder what was its meaning, never suspecting, most likely, that we have happened to chance upon what was, once upon a time, a great historical emblem—a symbol of patriotism for which men were ready to go into exile if need be, or to sacrifice money, friends, even life itself.

Yes, those old-fashioned garments, made often of crimson flannel, were called garibaldis because they were copied from the celebrated red shirts which were part—and the most distinctive part—of the uniforms worn by the volunteer soldiers of General Giuseppe Garibaldi, the Italian hero who, in the first half of the nineteenth century, set himself the task of liberating his country from foreign invaders and tyrants, and of joining the various provinces and cities—Lombardy, Tuscany, Naples, Rome and the rest—into a free, powerful and united Italy.

Sixty years! It is a lifetime almost, and the red-shirted warriors who marched so gaily and fought so boldly must be nearly all dead now, and the cause of their noble ideals either forgotten or out-of-date as their picturesque uniforms; but Garibaldi's volunteers were mostly young men, some of them, indeed, being mere boys of fourteen or fifteen.

A few of these veterans, therefore, still

survive, and even now, on festival days in Italy, when people are wearing their military uniforms or their Sunday best clothes, we may see old grey-haired men limping among the crowds, wearing the white gaiters and the peaked caps and the scarlet shirts that they



The Citadel of San Marino, where Garibaldi sought refuge.



A Group of Garibaldi's followers, wearing Calabrian Hat and Feathers.

put on for the first time so cheerily and so fearlessly more than sixty years ago.

Italy was in a disturbed and unhappy state during the first part of the last century, for it was cut up into many provinces that were hostile to each other, and almost like separate countries. The northern regions, Lombardy and Venetia, belonged to Austria, and were ruled by the invaders with a rod of iron. Those who travel in through Mantua, Verona and other towns of those districts, may still see the formidable fortresses which stretched across the land like the fetters of a huge chain. And then, making another division, was the Pope at Rome with his small temporal kingdom and world-wide spiritual dominion, while Naples with its corrupt government lay to the south, and was as tyrannical as Austria itself.

It was time that changes came; and, gradually, a strong Liberal party grew up in Italy, while, in 1862, Victor Emmanuel of

Savoy became monarch of a disturbed and discontented kingdom, and Giuseppe Garibaldi, the patriot, began to dream of Freedom and Union. There were foreign supporters of the different factions, France upholding the Pope and England sympathising with Young Italy; while, to add to the difficulties, Austria was on the war-path again, and there was fierce fighting in the North, where the frontier had been pushed far down into the fertile plains of Lombardy and Venetia.

The story of Italy's struggle for freedom is too long a one to be told now, but through it all, Garibaldi was the hero of the people, and thousands of men and boys thronged to his standard.

There were many English among these volunteers, and, if we look back into old history books, and into the magazines and newspapers of the early part of Queen Victoria's reign, we shall find praise of the picturesque hero every-

where. Speeches were made and poems were written in his honour, Elizabeth Barrett Browning being one of his most eloquent admirers. When he paid a visit to London, he was treated as if he were some great royal personage, and the interest and excitement of

the crowds knew no bounds.

In his own country the General was believed to lead a charmed life, his enemies declaring that he was under the protection of powerful demons, his celebrated shirt being a magic garment, which collected hostile bullets in its folds and rendered them harmless. Garibaldi's friends, on the other hand, considered him almost an angelic being; one who saw him in Naples during the Sicilian campaign saying that white flowing robes would have been more suitable attire for the hero than a crimson shirt and a wide-awake hat.

And so it went on, until, at last, Italy became free, the Pope retired into his palace of the Vatican, and Austria was driven back almost although not quite—to the mountains that were

the natural frontier.

The union of Italy was, however, more apparent than real, for the people still clung to their separate provinces, and even ragged beggars would refuse to call themselves Italians, and declare that they were Tuscan, Lombard, Venetian or Roman as the case might be.

Socialism, too, spread like wild-fire through the land, until it seemed as if the ideals proclaimed by Garibaldi were in danger of degenerating into anarchy and lawlessness, and as if all the red shirts had been changed into red flags. Then the War came, and when Italy at last decided to uphold the Allies, Austrian armies forced their way through the Alpine passes, and fought once more on the old battle-fields.

We can, most of us, remember the terrible days of 1917, when Venice was bombarded, when the Italian troops were pushed back from river to river, and when English regiments were hurried southward; but although there was undoubtedly discontent and sedition in their ranks, the Italian soldiers fought with splendid heroism, and the last river—the Piave—was not crossed by the invaders.

Well, victory was won, and followed by the Armistice and Peace. But even this did not bring rest and happiness to Italy, for all was still confused, trade at a standstill, and the soldiers who had saved their country were neglected, despised, and even humiliated.

It almost seemed as if the position were a hopeless one, but a reaction set in—a reaction, this time, against socialism itself—and a new party under the leadership of an ex-socialist, ex-soldier, named Mussolini, appeared upon the scene. This Mussolini, whose numerous followers wear black shirts as their uniform, is a strong man, and he quickly became powerful. He became practically dictator of Italy, his authority being upheld by the King himself.

Fascism (from the Italian word, Fasciare—to bind) is the name given to the new organisation, and, although it is early days yet to say much, it really seems as if a new era may have dawned for Italy, Mussolini's aims being simple and practical—to construct, not to destroy, to build up, not to pull down, and to do everything possible for the maintaining of order, the upholding of authority, and the restoration of industry and prosperity.

The new leader, it is true, has already shown that he means to rule with an iron rod, and to meet violence with violence; but his methods are, for the most part, straightforward, and he and his followers seem to be taking Ancient Rome as their example—not the luxurious Imperial Rome of the Emperors, but the austere, hardy Rome of Romulus, of Horatius, who kept the Tiber bridge so well, and of the great general, Curius, who lived a simple life on his farm, and who, when the Samnites tried to bribe him, said: 'It is more glorious not to have gold but to have power over those who possess it.'

The black-shirted Fascists wear the badge of the Roman eagle on their caps, and they salute in ancient fashion with outstretched arm, while the three words which they have taken as their motto are the sternly practical ones, 'Discipline, Order, Work,' instead of the 'Liberty, Equality, Fraternity' of the French

Revolution.

Mussolini claims supremacy because, as he himself declares, he, with his five hundred thousand black-shirted followers, among whom are numbered men of all parties, all ranks and all creeds, have brought a new civilisation and a new spirit to Italy. It is to be hoped that the Fascists will keep both their high ideals and the best of their methods, and that, continuing to be makers instead of breakers, they will, like the little maid in Charles Kingsley's well-known verse, 'Do noble things, not dream them all day long.'

A. A. METHLEY.

### ANCIENT BRITONS.

(Concluded from page 227.)

FOR a moment, Nurse and company were too much taken aback to reply to this unexpected welcome. Then Nurse's reply was not exactly what the Chiefs had hoped for.

'Well, upon my word! What next will you young imps do? I might have known that you would be up to some mischief. Look at you! Keep away from me and the children with those dirty, stained hands!' cried she, as the three Britons capered wildly around them. Then the funny appearance of these woadstained warriors suddenly struck her: she sat down on a clump of heather, and laughed until the tears rolled down her cheeks. 'Did anybody ever come across such young monkeys? All the same, my lads, you wait till bed-time. Then you'll get a scrubbing which will teach you whether you are Ancient Britons or not! Now, come along and have some tea.'

Very great justice did the Britons and everybody else do to the tea provided by Cook. The boys, no doubt, thought it advisable to eat a good meal, and so fortify themselves for the scrubbing in store for them. They had all been brought up by Nurse from babyhood, and knew the strength of her hands when their naughtiness required it, and the gentleness of those same hands in sickness, or childish grief.

After tea, Nurse and the children played games, whilst Cook, more anxious for a rest, took charge of the baby. Then Ancient Britons and party started on their homeward way.

'I say, Nurse! Do take the kitchen scrubbing-brush whilst you're about it. I shan't have any skin left, if you go on with this game much longer!' exclaimed Tom, wriggling eellike in the bath to escape further torture.

'Now, look here, my boy. It's Sunday tomorrow, and you're not going to church with blackberry stain on your skin, if I know it!' said Nurse, clutching Tom's right leg, and giving his knee a vigorous scrub.

'It's no good going to church to-morrow! Our knees'll be too sore to kneel on! Mine'll be raw in another second!' moaned Tom, who had had enough of this Saturday night bath. Nurse always thought it necessary to give them an extra 'do' on Saturday night, but this was beyond everything.

'There! You're finished!' exclaimed Nurse,

whisking him out of the bath, and wrapping him in a large towel. Tom was thankful to be left to his own devices, whilst Nurse prepared to torture Geoff, leaving Joe until the last.

Joe knew that Nurse's strength wouldn't relax until every speck of stain had disappeared from his fair skin. He, like his brothers, began to wish that he hadn't rubbed the juice in quite so hard.

'Shan't want any more baths for a week!' cried Joe, when, at last, his scrubbing was ended, and he was gently dabbing his forehead. Foolishly, he had rubbed his woad stain right up into the roots of his hair.

'And I'm sure, if you would be fit to be seen without one, I shouldn't want to bath you. My arms are aching fit to drop, I can tell you!' retorted Nurse.

'We won't play at Ancient Britons any more—at least, "stained" ones. If we're awfully good and obedient for a whole week, will you let us off our bath next Saturday night?' pleaded Joe.

'Not if I know it!' laughed Nurse, who had recovered her good humour. She might complain now and again of tired arms, but not for the world would she forego the duty, and to her, pleasure, of scrubbing, 'swilling' (a favourite term of hers), and generally polishing up her young charges in readiness for Sunday. 'There! You're done. Ancient Britons or

'There! You're done. Ancient Britons or Modern Ones, you'll get another good tub all right next Saturday, without counting the ones between—so that's that!' said Nurse decidedly.

Joe and the twins knew that Nurse always kept her word.

E. E. CARTER.

#### ONE TOUCH OF KINDNESS.

THE birds in St. James's Park seem extraordinarily tame. The sparrows will almost feed out of one's hand. One day a group of people were watching a mother bird feeding her four youngsters on the grass, only a foot or two from the pathway. They could scarcely fly and stood in a group while she kept finding food (thrown by the interested spectators), putting some into first one eager mouth and then another. She looked on us as friends, for we were helping to solve her housekeeping problem?

At the end of Birdcage Walk, two men were up a ladder cleaning the lamp by the gateway. On the grass below was a tiny, half-naked baby bird—it was floundering about, unable to fly, frightened

and horribly alone. Presently it got into a water gutter, and stayed huddled up at the end of it. One of the workmen came down the ladder to see what we were watching. When he saw the young bird, 'There's a nest up there on the bracket,' he said. 'It must have fallen out when we were cleaning it. He's too small to fly, I'd better catch him and put him back.' He walked across the grass, gently picked it up out of the gutter, carried it up the ladder and placed it carefully in the nest.

'He will be happy now,' he said, smiling. 'His mother will soon come back to him, and he's got three more brothers here. I wonder how he came to fall out.' BEATRICE WORTLEY.

### MY DIARY.

Written and Illustrated by RUTH COBB. IX.-SOME FAMOUS WOMEN. (Concluded from page 254.)

JANNAH MORE was famous in another wav. She was one of five devoted sisters who lived at Bristol. She wrote verses and poetic dramas when very young, and when she came to London, quickly became a member of the most famous literary set of that day. She was a great friend of Garrick, the actor, and his wife, and of Dr. John-Boswell, in his diary, writes: 'He (Dr. Johnson) told us "I dined yesterday at Mrs. Garrick's with Mrs. Carter, Miss Fanny Burney, and Miss Hannah Moore. Three such women are not to be found, I know not where I could find a fourth . . . who is superior to them all.'

Her high spirits and powers of conversation made Hannah More a great favourite, but she saw much of the follies of the day in the ways of fashionable folk. She was of a very religious mind, and was afraid of being too much absorbed by the distractions of Society. She writes in her diary on May 20th, 1798, 'This week has been spent in receiving visits from the great. Lord preserve me from these temptations to vanity.' She lived to a great old age, but as long as she could paid her yearly visits to town. The rest of her life was spent in writing tracts, and light verses written with a purpose, that had an enormous circulation all over the country, and also in opening and supporting schools in Somersetshire, in the Cheddar Cliff district, a part of England where the children ran wild, and the people generally had no education, and were the terror of the farmers of the countryside. She writes much of this in her diary, and also of her struggles to keep her religious faith fervent.

Sunday, Nov. 23rd, 1802. 'Detained at home by a severe cold and headache. Grieved to find that when I have this last complaint to a great degree I have seldom any strong

religious feelings.'

Elizabeth, Lady Holland, lived at Holland House, Kensington, a house to be seen and visited to-day. There she entertained all the famous people of her time. She was the most celebrated hostess at the end of the eighteenth century. She liked to have people always around her. They were flattered to receive her invitations. Constant mention of her parties are made in diaries written by her celebrated friends. Thomas Moore has entries of the evenings he spent there, and many times he must have sung his Irish melodies at Holland House for the entertainment of other guests.

Lady Holland was probably quite unconscious how much was written about her by her guests. Her position was so secure that she was above anxiety about herself, in the opinions

of others.

She also kept a diary, and it is of great value as a record of many political events of the day, of which she had much intimate knowledge, for Charles James Fox was a member of the Holland family. She also writes of the Napoleonic wars. But she lacked the power of giving the vivid word-pictures of people that other diarists possessed. In her diary she often merely gives lists of the names of the notable people that she entertained, nothing more. She writes in 1807, however, with more detail of one of her guests. 'Sent an invitation to Mr. Wordsworth, one of the Lake Poets, to come and dine, or visit us in the evening. He came. He is much superior to his writings, and his conversation is even beyond his abilities.'

She describes her travels at home and abroad, and the books she read; but it is not from her own writings, but from the writings of others, that we know most of this great lady and hostess, and of the brilliant circle that gathered round her in the rooms at Holland House,



" Come and see.' she called. 'We are alone.'

### THE DIM RED DAWN.

By Mrs. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' 'Princess Ooma,' &c. Illustrated by E. S. FARMER.

(Continued from page 260.)

CHAPTER XXXI. HYENAS.

F the journey through the forests to the cave had been on the whole uneventful, Lulu did not expect so easy a time on the way back. Then the tribe had been fully occupied, its attention directed elsewhere. Now, no doubt, it was going about its ordinary business again. The hunters would probably be roaming as far as the boundaries. Once these were past, the invaders might at any moment be detected and

challenged.

Great care was necessary, therefore, but Lulu's army did its best to conceal itself at least. The forest folk had joined her as they had promised. She had come to them, riding on Hrump; Zan and Zip-Zip were on his back. too. Bobo followed behind them, for he complained that Hrump jolted his bones until they ached. Brild crept after his father, laden with the coloured clay, his burden as light as he dared make it, but impressive. He groaned from time to time in the hope that the more uncomfortable he seemed the better pleased Lulu would be.

The forest people had been waiting, but, from then on, had effaced themselves in a fashion

that was really marvellous.

'Lead, and we will follow,' they had said. And follow they did, but by roads of their own, that ran through the tree tops most often.

At night they would come stealing down, unable to resist the lure of the fire, bringing with them birds they had caught to roast. For a little while they would sit basking, and perhaps pick up a burning branch and hold it close to a leg or arm that felt chilly. Then back they would go to roost in their trees again, as much at home on their perches as the birds themselves. They never seemed to feel safe if they were on the ground long. Though they cooked their food, they would eat it raw also, a custom on which Lulu's tribe looked

But that tribe proved equally evasive. Even when the boundaries were passed there was, after all, no sign of it.

'What does it mean?' Lulu began to wonder. By this time the fishing pool could not

That the forests should still be be far off. deserted was alarming, because it was so unaccountable.

'I do not know,' said Bobo, puzzled also. 'Perhaps there was much meat from Churruk's great hunt and the tribe is still resting. But Zend,' Bobo reflected, 'would never let them kill more than he judged wise, even on great occasions.'

'I remember,' Lulu answered. It was her turn now to explore the past, as Zip-Zip had done so lately. It was queer how distant already her former life with the tribe seemed.

though close enough in reality.

But Lulu herself had altered. Zan, Zip-Zip, Brild and Bobo-not one of them was quite the same. In any case Lulu stood in a different relation to them all, which was new in itself. But, since Zend and all that had to do with him had changed in no particular, it was easy

to recall what she needed.

'Zend told me,' said Lulu—she spoke to keep Bobo in his place, as if Zend had confided in her alone—'he told me that plenty of wild things must be left always to increase, or some day we might die of hunger. And that it was good to hunt often because it kept us strong. And when we hunted we could watch the boundaries for our enemies. I knew,' she finished triumphantly, 'that Churruk would be a bad chief, not wise like Zend.' To which Bobo agreed.

Our people have killed until they can kill no more, and now they are lolling in their huts

eating smoked meat,' he guessed.

But the pool itself surely would be frequented; the tribe, if over-fed, must bathe. The pool must be approached with added caution. Moreover, beside it must be lying the great dead mammoth. Hrump might recognise it and be frightened; he might even be so alarmed

he might run away.

Up to this point he had been obedient enough. A little fractious sometimes, and inclined to dawdle, but he had always yielded in the end. Only to Lulu usually, but there were times when he would listen to Zan, perhaps because Zan was no more afraid of him than Lulu herself.

'Keep Hrump back for the present,' Lulu told Zan, when she was sure the next turn in the river bed was the turn nearest to the pool. She signalled at the same time to the forest people to hold back also. If she could not see them, they could always see her. A rustle answered, and Lulu and Zip-Zip slipped away to scout, while Zan proudly took Lulu's place on Hrump's neck.

'Perhaps Churruk is at the pool now,' Brild

whispered to his father, trembling.

Bobo did not reply immediately, but after a

little he spoke.

'I can smell no one bathing,' he announced. He had spent the interval sniffing the air delicately, rejecting some smells, lingering on others. 'The wind is blowing from the pool, but I cannot smell man. No, nor mammoth,' he added, surprised, as he reckoned that surely much of the mammoth must still remain, enough to cause a smell not easily mistaken. So vast a bulk would begin to decay ere the carrion eaters could deal with it. And then there came a cry from Lulu.

'Come and see,' she called. 'We are alone.

Come and see.'

Already Hrump was on the move, eager to reach Lulu again now that he heard her voice. No longer would he let Zan restrain him.

Out on to the bank of the pool he swung where Lulu and Zip-Zip were standing. Close to them was a great white skeleton from which

every scrap of meat had been stripped. Hrump looked at it, but did not seem alarmed. Perhaps he thought the skeleton was a rock; it certainly did not remind him of his parent. He sniffed at its ribs unconcernedly, and then turned away to graze.

'Hyenas!' Lulu muttered to herself. Exactly what had happened she was sure she could piece together now. Zend's people had gorged themselves, not on fresh meat, which might have been excusable, if silly, but on a dead Perhaps they had driven off the carrion eaters to feed themselves. And they had done more than that. There was no other bathing pool nearer the settlement. There was only a little shallow pool close by, reserved for the smallest children in Zend's time. At this the whole tribe must have been drinking, and no one had bathed, for there were no fresh foot-prints on the track that led to the huts Lulu had discovered already.

'Look!' she said to Bobo, who had followed Hrump leisurely. Then, hotly indignant, she

turned to Zan.

'Rule as your father ruled,' she flung at him, at which Zan looked at her, a little puzzled. He sensed her indignation had nothing to do with himself directly, but he could not quite fathom its cause.

'I will,' Zan promised, for once subdued by this something that was new but so emphatic.

(Continued on page 274.)

#### BRIDGES.

By P. M. BAKER, B.Sc., M.B.E., A.M.I.E.E., A.M.I.Mech.E.

Illustrated by BERNARD WAY.

(Continued from page 256.)

THE Menai Bridge, already referred to (see fig. 9, page 212), is a particularly interesting example of early bridge building which was carried out by Robert Stephenson, the eminent son of George Stephenson, whose early work on the locomotive every one has It is interesting not only on heard of. account of the form of the bridge, but also because of the ingenuity shown by the engineer in its erection. The bridge has four spans, each consisting of two tubular girders, which are large enough to permit of the passage of a train through them. girders rest on high piers erected in the Menai Strait, and the method by which the

girders were put into position was very in-

genious.

The piers were built with a recess or groove on each side, so that the distance from one to the other was great enough to accommodate the length of one span of the girder. The tubular girders were built on shore in a temporary bridge-building works, their ends were closed up by means of temporary partitions, and they were launched and towed into position so that they floated between the piers. Each girder was then raised a short distance by means of hydraulic cylinders, resting on a ledge in the masonry of the pier, at each end, and the masonry was built up in the groove of the pier

to follow up the movement of the girder. When the cylinders had been extended to their full stroke the girder was allowed to rest on the new masonry, while the plungers were returned to their closed position and the cylinders were raised on to the completed masonry. Thus each girder was raised step by step, the cylinders

being raised as the work progressed.

The bridge is principally interesting because this method of erection and the use of hydraulic cylinders were novel when the work was originally done, and the bridge stands as a monument to the ability of its engineer. It has for many years carried some of the most important main-line traffic in the country—that between this country and Ireland—traffic which includes, incidentally, the heaviest of the American mail.

The Rivets.—Nearly all the joints in bridges are riveted. This is not always so for the main joints, especially in American bridges, where the plan of connecting together the main members of the bridge by means of pin joints -free to swivel as much as necessary-is often adopted, as some engineers believe that, although they may not strengthen the bridge by so doing, they are able to tell exactly how the loads applied to it are being carried, and to be sure that the joints are not causing the members to be strained. There are, therefore, many rivets to be put in place, very often on the work itself, as it proceeds. There are, indeed, many millions in the Forth Bridge, many of which had to be riveted in position on the bridge itself, in some cases at a height of nearly 400 feet above water How is such riveting work to be done? It is obvious that we can prepare the plates before we put them in position either by punching the holes, although that is not a recommended procedure, or by drilling them, which is the method preferred, as it does not injure the material at the edges of the holes. A plate, with all its holes thus prepared, is placed in position so that the holes come opposite those in the adjoining plates, and a few bolts are inserted to hold them while the riveting is done. The rivets have to be put in place red-hot and hammered up to form a head similar to that which has been already made on the other end. This would involve a tremendous amount of heavy manual labour, carried out where there was little room for a hammer to be swung, and most of the work is done by either a pneumatic or a hydraulic riveter.

The Hydraulic Riveter.—A description of a hydraulic riveter will be found on page 125. The operation is carried out in the following

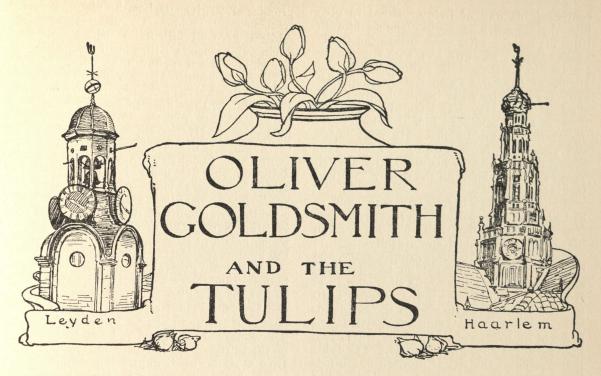
way.

A rivet, heated in a rivet-heating furnace, is passed through the holes, the hydraulic riveter is placed over the work with its dead end on the rivet head, and high-pressure water from a flexible pipe is turned on to the cylinder. causing the plunger to move forward and press its 'heading' tool against the rivet with tremendous force. The rivet is squeezed out by this force into the form of a head against the plates similar to that already formed on the other end of the rivet, at the same time bulging out the rivet shank to fill the holes completely. As it cools, the rivet, contracting, tightens the plates down one upon the other. This kind of riveter can, however, only be used when it can reach round the edge of the plate, so as to press on both ends of the rivet simultaneously, and for work which is at a considerable distance from the plate edge it is, consequently, of no use.

(Concluded on page 285.)



The City Gale Leyden



ON a day in the eighteenth century, Oliver Goldsmith, afterwards to become famous as author and dramatist, walked down the streets of the old Dutch town of Leyden. For once he had plenty of money in his pockets. He was a student at the University, then one of the most famous in Europe. Its reputation attracted men from many other countries, among them Goldsmith. Having decided to study medicine, he arranged to set sail from Newcastle on a ship bound for Holland, but a few hours before starting he was arrested as a Jacobite and thrown into prison for a fortnight.

The boat sailed without him, and was wrecked on its voyage out. How Goldsmith eventually reached Holland is not known, nor in what part of Leyden he lived. He stayed there for a year, and attended lectures in chemistry and anatomy, but he was often so poor that he was glad to give lessons in English for a living, although he could not speak Dutch, and he knew only a very little French. Whenever he had any money he lost it at once through gambling and extravagance.

An English fellow-student, seeing that Goldsmith was nearing permanent disaster if he



continued his way of living, offered to give him the necessary money to enable him to leave the town. After some persuasion Goldsmith accepted the gift, and with the money jingling in his pockets he walked out into the streets of Leyden. Passing some shops his eye was caught by some beautiful tulips that stood in a window. He stopped to look at them, and they reminded him that he had an uncle who cultivated tulips. He went inside and ordered a large quantity of the most beautiful to be sent to his uncle in England. That exhausted almost all the money that had just been given him.

He was unable to borrow any more, and as he had given his promise to go away, he was forced to leave Leyden with only a guinea in

his pocket, a spare shirt, and his flute.

Holland is a great bulb-growing country, and they are chiefly cultivated on the flat land stretching between the towns of Leyden and Haarlem. Both of these towns suffered terrible sieges during the time when the Spaniards were occupying the country. Leyden was besieged in 1574, and the citizens feared that they would be forced to surrender. The dykes that prevented the waters of the many canals that intersect the land from overflowing had been cut, in the hope that sufficient water would pour over and allow of the approach of rescuing ships, but the water proved to be not deep enough. Not long after there was a great storm, and the waters flowed over the land from the North Sea, the ships were able to draw near to the walls of the town, and Leyden was relieved.

As a reward for their endurance, William the Silent, the great Dutch leader, offered the citizens exemption from taxation, or else the foundation of an University. They chose the University. It soon became famous, attracting many well-known men besides Oliver Goldsmith. The town is a good deal altered since those days, but the Stadhuis or Town Hall is still unchanged, and on its wall is a tablet telling of the relief of the town, and two of the old town gateways remain.

The University was first housed in some convent buildings on the site of the present Senate House. Leyden is a non-resident University, the professors teaching largely in

their own homes.

Haarlem was more unfortunate than Leyden, for in 1572 it was compelled to surrender to the Spaniards. The garrison was given a

promise of forgiveness, but the victors behaved treacherously, and afterwards the Dutch soldiers were all killed. A cannon-ball fired during the siege is still shown embedded in the walls of the fine church.

It was not until the seventeenth century that the great craze for bulb-growing began in Holland. In the sixteenth century some tulip bulbs were sent from the East to a merchant in Antwerp. His servant cooked them, under the impression that they were a kind of onion. It was soon found that they flowered splendidly on the flat fields lying between the canals. Growers vied with each other in producing fine specimens, and there was much gambling over bulbs of new colours. Dumas' exciting story, The Black Tulip, the scene of which is laid in Haarlem, gives an account of the kind of speculating that took place.

To-day the cultivation of bulbs is a great industry, and they are grown almost entirely for export, the chief district being between Haarlem and Leyden. The Hollander is proud of the masses of colour to be seen in the spring-time. The flowers are reckoned to be at their height on the third Sunday in April, and many journey from other towns to admire the blooms.

The bulbs are grown in large rectangular patches and in small oblong beds, the effect suggesting a silk matching - card of many

colours.

The soil of these flat fields is rich and dark, lying on a peat foundation; and after the planting of the bulbs they are powdered with light sand from the dunes. The bulbs need very careful attention while growing. The flower is picked before it dies, so that strength is left in the bulb. It takes three years before it is ready for export.

So prodigal are the blooms that thousands are thrown away into dust-heaps at the corners of the field. The bulbs are not much used by the Dutch people for adornment of their own dwellings and gardens. In the big cities there are wonderful flower shops displaying rarer kinds of flowers. The more humble bulbs are sold on stalls at the street corners, and by men with paniers hanging from their shoulders.

In spite of so many of the houses having been refaced, the direction of the streets is the same, and it is still possible to picture Oliver Goldsmith walking along the narrow way with money in his pockets, and to understand how he was fascinated by the sight of the wonderful flowers just as we are to-day.

#### GIPSIES.

T was such a dull walk that Nurse took Pam one hot summer's morning. John was home for the holidays, so he went for the walk too, and thought it even duller than Pam did.

'Why can't Nurse take us for jolly walks through woods and fields? Only babies in prams go along the road,' he said to Pam.

'I know,' answered his younger sister. 'But Nurse is awfully afraid of things like cows and horses. And she'd be *very* frightened in a wood.'

'How silly!' said John, and cried, 'Oh, look!' for along came such a queer cavalcade.
'Gipsies!' cried John, and he was right.

There were three or four red caravans drawn by pie-bald horses, followed by curly-headed children playing with dogs. Then there came a crowd of sunburnt boys riding shaggy ponies, and rough men smoking long pipes. But Pam liked the first caravan best. It had white curtains to its little windows, and smoke curling from its tall thin chimney; there was even a canary in a cage hanging in the open doorway, and on the steps sat a brown-faced woman with feathers in her hat, and a baby on her knee.

'Oh, isn't that sweet?' cried Pam, staring round-eyed as the gipsies went past. 'Oh, John, how I'd like to be a gipsy!'

'Me, too!' said John.

But Nurse called, 'Don't be silly, children, and come on quickly now in case those nasty creatures carry you off.'

The children ran after her, but they talked

a lot about gipsies on the way home.

'Suppose we run away and join them,' said

Pam, thinking of the red caravan.

'No, I think they mightn't be nice people to live with for always,' said John. 'Besides, what would poor Mother and Father do without us? But supposing we played at gipsies by ourselves?'

'Let's,' cried Pam. 'And let's have a red

caravan too.

'Well, we couldn't do that,' answered John.
'But Mother and Father are away, so let's play gipsies to-night. We could make a tent in the field behind the house. Nurse would never find out; she is so lazy in the evenings.'

'And we could carry our things there in the green wheel-barrow,' cried Pam excitedly. 'And I could wear Mother's hat with the

ostrich feathers.'

'And I'd get one of Father's big red silk

hankies, and we will eat cake and apples and cheese,' whispered John.

'Hurry up, children! It's nearly lunchtime,' called Nurse, and in a few minutes they

reached home.

After lunch, Nurse always sat down and went to sleep, so John and Pam began to get things ready for playing at gipsies. First they got the wheel-barrow from the tool-shed, and heaped it up with motoring rugs from the chest in the hall, and cushions from the drawing-room. Then John pushed the barrow while Pam dragged several long poles. Down the garden they went, through a little wood and into a big grass field.

Then John stuck the poles firmly into the ground and arranged the rugs over them.

'What a lovely tent!' cried Pam, jumping up and down outside while John got in and piled the rugs and cushions.

'There's just room for both of us,' he said.

'Won't we have fun to-night?'

They rushed home for tea, and afterwards Nurse made them play games in the garden, so there was no time to talk about being gipsies.

'I say,' whispered John before supper, 'I've been thinking what fun it would be to have our supper outside the tent as real gipsies do. So don't eat much now, Pam.'

'Right!' said Pam, and she ate as little as

possible.

'Dear me!' said Nurse. 'What's come over you, children? No second helping of pudding! Come on, pass your plate, John, there's a good boy.'

'No, thank you, Nurse. I really don't want it,' said John politely; but he winked at Pam

with his other eye.

After supper, Nurse hurried the children to bed. But when she had gone, they jumped up and put on their clothes again.

'We must be awfully quiet going downstairs,' whispered Pam, opening the door into

John's room.

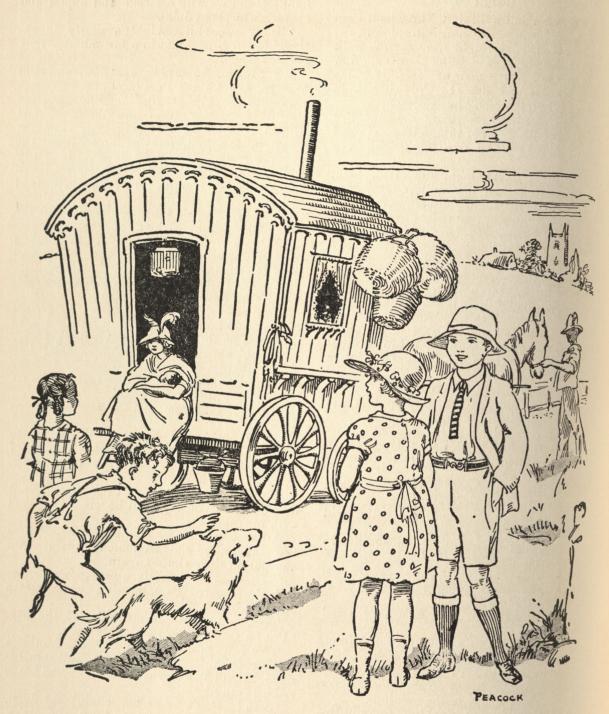
'Yes, and jolly quick too!' said the boy.

'Put on your big coat and come on.'

'Wait a minute—I must get Mother's feathered hat.' And Pam pranced into his room. 'Don't I look just like that woman in the red caravan?'

'S-sh! Don't make me laugh,' said John, and they began to creep down the stairs. When they got to the bottom, John said: 'You wait here, and I'll go and forage in the larder.'

(Concluded on page 286.)



66 Oh, John! how I'd like to be a gipsy!"



"She could not be sure that they believed her."

## THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' 'Princess Coma,' &c. Illustrated by E. S. FARMER.

(Continued from page 267.)

CHAPTER XXXII. THE WHISPER.

BUT, even had Zan been inclined to be cantankerous, Lulu had not much time to spare for him at the moment. The forest people had ventured as far as the trees that overhung the pool, but they were obviously One or other would part the branches and look through; then shudder at the sight of the great skeleton and hide again.

'Come close to it,' Lulu coaxed. 'It is dead-quite dead. How can it hurt you?' But for some time her invitation was not accepted. Then, little by little, the clan came

creeping up.

'These are the bones of the mother of the little one,' Lulu explained, as, bunched together, the forest men and women huddled. They were all so much alike that even yet she hardly knew one from the other. But the man and woman who had first come to the cave were usually most venturesome, and it was they who began to question her now.

'The mother of the little one?' said the 'Was that the only child she had?' And she pointed a stumpy finger at Hrump.

'And the father? Where is he?' the man asked. 'Was he larger than this one? The

leader of the herd?'

'There was no herd,' Lulu told them, but she could not be sure that they believed her. They looked at her dubiously, and then they wandered, all of them, round the skeleton, glancing from it to the track frequently, as if they thought that something might appear at any moment. They whispered together too. Lulu could not catch what they were saying, but Zip-Zip, closer, heard more.

'They still think that from where we first came there may come many mammoths, that we own many, she whispered in turn to Lulu. But if nervous, the forest folk were no less friendly. And it was too late already to attempt more that night, to put them to a further test. In the morning, Lulu reckoned, they would be more at their ease, less scared. And they could remain in ambush at the

moment of the attack, she explained to them ere they retreated to the shelter of the trees again. It would be an advantage from her own point of view as well as theirs.

'You shall shoot, hidden,' she promised. 'There are plenty of trees around the huts. It will be better if no one sees you. Shoot all together, and as quickly as you can. Then no one will know how few of you there are.'

Herself, Zan, and Zip-Zip and Hrump must be in the open, of course. Brild could do as he chose. Hide, run away, it did not matter. Bobo, when questioned, elected to remain still

on the ground.

'The tribe may be afraid to touch you, at any rate at first, on Hrump's back,' he reasoned. 'But,' he insisted, 'it will not be easy to throw a spear straight if there is spear throwing. Hrump never stands still; he is always fidgeting. No, I can see all I want to see from the ground, and defend myself better on my own feet, and on the ground I stay,' Bobo decided, at any rate to Brild's delight. Brild had been trying to nerve himself to creep fairly close that he might be ready to attach himself to the winner eventually. To have his father's company would be an enormous gain. He could lie flat on the ground, he thought, close to Bobo, sheltered by undergrowth, where no chancethrown weapon was likely to reach him. He was amazed that Zip-Zip should seem pleased with the part she was to play; that Zan should argue he ought to be provided with a weapon that would do more damage, and, in consequence, probably draw more attention to himself than his bow.

'Let me have my father's sling. I am old

enough now,' Zan clamoured.

'No,' Lulu returned firmly. Zan might imagine he was big enough for the sling, but in fact he was not. Pleased to be able to repress him thoroughly at last, Lulu presently fell asleep, to wake, however, abruptly a little later. Something had disturbed her she was sure. Something, she was almost certain, had bent over her ere it slipped by her. Something, this, too, she believed, had whispered in her ear.

Come back to us. Come back to us.' Thus

had the whisper run.

She sat up and looked about her warily. The firelight showed her nothing alarming. The forest all around was very still, for it was a windless night. But, convinced still that she had not been mistaken, she waited. Then from the nearest tree there came a rustling. Once more she heard the whisper - louder

'Good luck to you, magic worker. We are going. Come back to us soon. Come back to us, we entreat you.'

#### CHAPTER XXXIII. THINGS OF THE DARK.

ALREADY the rustling near by had ceased; into the distance Lulu could hear it receding. It was going; it was gone. Ere she could answer them, the forest people had slipped They had not gone very far possibly; it was not likely they would dare to travel far by night. But they had taken themselves out of her reach certainly for the time being. They had deserted her definitely, and the result even Lulu could not ignore. She had been prepared for a struggle on the morrow, but had quite persuaded herself it would end in her favour.

And to this belief had been added that day a contempt for the tribe that had so soon forgotten all it had been taught. That it was contemptible she still felt, but it was numerous. She could not but acknowledge she

might fail to cow it now.

'Um!' said Lulu, and looked longingly in the direction of the track that led away from the pool. To be so close and yet to have to retreat; it was revolting. Yet what other course was open to her if in the future success was to be hers? If she went back to the cave for awhile, the forest folk might be taught little by little to follow more loyally. Next time she might make a special magic for them in advance. This she might have done earlier; Zend would surely do all he could to help at any moment in the triumph of Zan and herself combined. But it was too late to regret Yet must she submit quite the omission. Could she not at least amuse herself tamely? a little?

'Um!' said Lulu again. It was still early in the night. There was still time in plenty before dawn, though it might not be wise to linger by the pool after sunrise. The tribe might be recovering from its stupor. It might chance to remember it had once been clean.

It might begin to hunt again. But, in this

'They will all be sleeping now,' Lulu told herself, considering. 'I could go now through the night, riding on Hrump. He has grown so big the night things would leave us alone. I could take something of Churruk's from outside his hut. In the morning Churruk would find it gone. He would be frightened. Every one would be frightened at the strange thing that had come in the dark.'

And at that she hugged herself gleefully, her arms round her knees. Yes, right in among the tribal huts she would go, mocking. From every point of view the prospect pleased her, and from one in particular. It had irked her all this while, subconsciously, that Zan had, in fact, done something very daring that she had not. It had helped in a sense to hamper her in her dealings with him. Now she would point the way again, as was but fitting. She would let Zan come with Zip-Zip and herself, and he should see what she could do. Then, as she turned to wake the two, she found that both were awake already, looking at her. She had been more restless in her excitement than she had realised, had made more noise.

'What is it, Lulu?' Zip-Zip asked. She had not ventured on a question before. Even yet she had not quite regained her old sense of

security.

'Can you hear something?' Zan asked, eagerly. There might be hunting in prospect, he hoped. (Continued on page 283.)

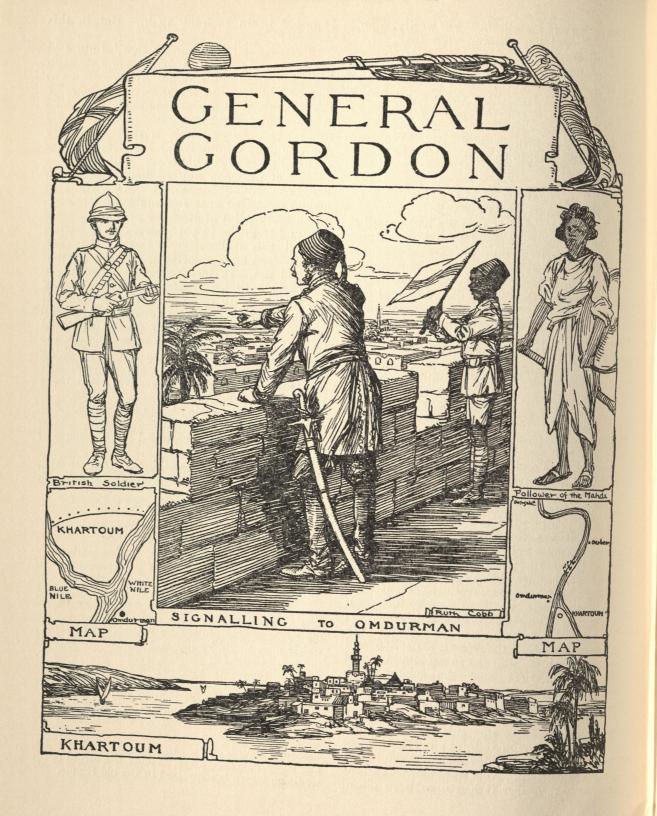
#### ST. SWITHIN'S DAY.

IN the ninth century, over a thousand years 1 ago, St. Swithin, the pious preceptor to King Ethelwulf, was made Bishop of Winchester.

His humility was great, and on his death-bed he decreed that his unworthy body should be buried outside, and not inside, his cathedral, choosing for his grave a site under the cathedral eaves, over which men would tramp and the raindrops from

the eaves would fall.

More than one hundred years later, it was decided to honour the dead by making him the patron saint of the cathedral. To this end the clergy, forgetting his injunction, planned to move the remains on July 15th to a noble shrine in the building. When the day arrived, according to legend, a terrific storm broke out as if in protest, and this lasted forty days. Hence the origin of the tradition which is expressed in the old rhyme.



## MY DIARY.

Written and Illustrated by RUTH COBB.

X.-MEN OF ACTION.

SIR JOHN MOORE had always intended to be a soldier, from the time that he was twelve years old. His father approved of his decision. The boy early learnt all he could about tactics. His father, Dr. Moore, was governor to the young Earl of Hamilton, and he took his son, John, with him when he travelled through Europe with his charge: it was a very adventurous and interesting journey. Dr. Moore himself kept a very interesting diary.



Sir John Moore, the Hero of Corunna.

Prussia, in 1774, was the model for all military matters, and at the court of Frederick the Great, at Berlin, the boy, with great interest, saw that monarch conduct military manœuvres in a masterly manner with enormous numbers of men.

When he was fifteen years old, John Moore received his commission, and entered the army. He served in Ireland, but did not see much active service until 1793, when he was twenty-two. It was the time of the last phase of the French Revolution and the rise of Napoleon Bonaparte. England was to be at war with France for many years. Through those long years Sir John Moore fought against the French, dying in battle at Corunna in 1808. From the beginning of the French campaigns

he kept a diary. It is entirely a war diary, dealing with the various campaigns from day to day. He can hardly have meant it for publication. He expressed strong opinions of other people in a way that he would not have wished to come to light, and which has prevented the publication of the diaries until recent times. The original Diary was lost, but a copy exists made by Lady Napier, a lady whom Moore once hoped to marry. It is written in great detail and variety, unlike many soldiers' diaries, which often only deal with particulars of military operations.

When Sir John Moore was sent to the south of France, to give help to the inhabitants of Toulon, he set sail from Gibraltar with his regiment, and after many delays, not his own fault, arrived outside Toulon and reported to the Commander-in-Chief: 'Hyères Bay, 1st January, 1794. I went on board the Victory



Gordon in the Desert.

with Capt. Dixon, and was introduced by him to Lord Hood. He received the state of the regiment I presented to him, with my orders, to put myself under his Lordship's command; expressed some surprise at the smallness of our numbers, said we were rather late; then turned to one of the navy officers with whom

he was transacting business. I then retired into the outer cabin.

Sir John Moore, during his career, was to meet with much of this kind of treatment and opposition from other officers, but his worth was quickly realised by some, and he rose to a great position through his own qualities.

He was given a command in Corsica, and there he met the hero of James Boswell's diary, kept when he was travelling on that island—General Paoli, now, in 1794, an old man. Moore writes in his diary, 'The General is much broken since I saw him in England, and it is hardly to be wondered at, for Paoli, and the island he loved, were in the midst of troublous times.'

Afterwards, Moore held commands in the West Indies, Egypt, Sicily and Holland, and finally made his famous expedition to Spain, to help in expelling the French from that

country.

'Lisbon, 14th Oct. 1808. On the afternoon of the 6th a vessel arrived from England which contained my appointment to the chief command of the army to be employed in Spain. ... The dispatches state that 10,000 infantry, five regiments of cavalry, and the proportionate artillery, sail from Falmouth to Corunna, to be under my orders, making in all an army of about 40,000 men. There has been no such a command, since Marlborough, for a British officer. How they came to pitch on me, I cannot say, for they have given sufficient proof of not being partial to me!'

Moore had little help from the Spanish, and in December was forced to retreat before the French; the conditions were bad, and many

men perished by the way.

He writes on the 23rd Dec. 'It was necessary to halt yesterday, after the hard marches the troops had, in very cold and bad weather, the ground covered with snow. I was also obliged to stop for provisions.' He was overtaken by the French General, Soult, as he was embarking his troops at Corunna. A battle was fought, and the victory was with the English, but Sir John Moore himself was killed, shot through the shoulder by a cannonball.

'They buried him darkly at dead of night.' So wrote a poet of this great general, a man who gives such a clear portrait of himself in his diaries, and who fought so well for his country.

Another man of action, who perished while

serving, and who kept a diary, was General Charles Gordon. This diary was avowedly written for publication. He had been sent in January, 1884, to Khartoum, a town built on a promontory at the junction of the White and Blue Niles, surrounded by desert, to report on the state of the Soudan. Here he was beiseged by the forces of the Mahdi, a fanatical leader. From Sep. 10th to Dec. 14th he kept a complete diary: he managed to get it sent down at intervals, from Khartoum, wrapped up in a handkerchief or glass-cloth. On the outside of the first part was written:

'No secrets as far as I am concerned.—

C. G. Gordon.

'N.B.—This Journal will want pruning out

if thought necessary to publish.'

General Gordon wanted the Government and country at home to learn the true story of what was happening in the Soudan. He knew there was a difference of opinion on the state of things in the Cabinet, and also about what was to be done among those in authority. He was evidently short of paper at times, for at the bottom of an entry, on Oct. 28th, he writes, '(End of this blotting paper).' It is partly written on tissue copying paper, and the rest on telegraph forms. He puts in brackets, 'F- will be furious at this misuse of telegraph forms.'

For a time a certain amount of news managed to get through to him from Egypt. He says on Nov. 5th: 'A curious thing has happened. My friend Kitchener sent up the post, he wrapped the letters in some old newspapers. (He gave me no news in his letter.) The old newspapers were thrown out in the garden. There, a clerk who knew some English, found them blowing about, and gave them to the apothecary of the hospital, who knows English. The doctor found him reading them, saw the date 15th September, and secured them for me: they are like gold, as you may imagine. Since we have had no news since 24th February, 1884!'

Gordon was entirely alone, the only Englishman in Khartoum, with black troops for his command. Colonel Stewart, who had been with him at first, he had sent back, thinking he would be of more assistance at the base, if a relief expedition was ever to come. As the Mahdi's forces closed in round Khartoum, Gordon was in anxiety as to the fate of some of his men at Omdurman Fort on the other side of the river, and there are constant entries

about it. 'Nov. 19th. We have communicated with Omdurman Fort with flags. It is all right. The Arabs are not firing today.' He had not the men to relieve it. 'Dec. 6th. I have given up all idea of landing at Omdurman. We have not the force to do it.'

The Arab forces began to attack Khartoum more constantly. Early in November Gordon writes: 'If not relieved for a month our food supply fails, and if we do not get out of this mess, it is a miracle.' There was still no news of the approach of a relief expedition, and the position was becoming critical.

The firing hardly ceased. On Dec. 12, 3.30 p.m.: 'The Arabs fired two shells at the palace, one burst in the air, the other fell in the water in a direct line with the window I was sitting at.' '3.40 p.m. They fired another shell which fell only fifty yards short of the palace; another burst in the air.'

On Dec. 13th he writes: 'If some effort is not made before ten days' time the town will fall;' and on Dec. 14th, 'Now mark this, if the Expeditionary Force, and I ask for no more than two hundred men, does not come in ten days, the town may fall. I have done my best for the honour of my country.'

This portion of the journal reached its destination like the rest. Well, it was a letter to the head of the Expeditionary Force, who all the time were trying to send steamers

with relief up the river, but could not pass the firing of the enemy. 'I have kept a daily journal of all events at Khartoum, which contains also my private opinions upon certain facts. You can of course make extracts of all official matter, and will naturally leave my private opinions out, in case of publication. I have already sent five portions of this journal and now send the sixth.'

It is probable that General Gordon began a seventh, but that part of the diary never came to light. He was killed on January 26th, when Khartoum fell. The relief force arrived two days after; it was too late.

So perished two great men of action, fighting abroad for the honour of their country. Another diarist who died in our own time, serving his country in peace, in the cause of science, Captain Scott, belongs to the same class of men. The story of his struggle to reach the South Pole, his success, and his after journey, are told by himself in his diary, and are too familiar to be repeated. He ends by saying:

'Had we lived, I should have had a tale to tell of the hardihood and endurance and courage of my companions, which would have stirred the hearts of Englishmen.'

Robert Scott's diary was found by the search party, and the story told there lives for ever in our memory. The original diary is in the British Museum, and can be seen by visitors.

## SALLY AND SILLY.

(Concluded from page 248.)

It was much darker under the trees, but Silly sped along calling Sally's name over and over again, and peering from side to side to see if she could catch sight of a white figure chained to a tree. She ran on and on till she felt dreadfully tired, and her feet in their thin house shoes were sore and aching. It was getting very dark, too, but Silly was too frightened about her sister to be afraid for herself. Oh, would she ever, ever see Sally again? What terrible thing had happened to her? Half blinded by tears, Silly ran on and on.

Suddenly she was startled by the hoot of a motor horn, and the bright lights of a car blazed round a bend in the road far ahead of her. A sudden idea seized Silly. She wanted some one older than herself. It was hopeless to search alone in the great forest. She must

stop this car and ask the people to send help to leave a message for her father and mother, whom she had forgotten in her haste, to put the police on the track of the robbers who had carried off Sally.

The car was nearly upon her now—she rushed out into the middle of the road, holding out her arms as wide as she could. The driver jammed on his brakes with an angry exclamation, the car stopped short—and only just in time.

'You little idiot, you were nearly killed!' cried the young man indignantly. 'What do you think you're playing at?'

Silly clung to the mud-guard, breathless and trembling.

'My sister—she's been carried off by robbers—or murdered perhaps—I thought you'd help me—oh! please do——'

'Good gracious!' exclaimed a well-known voice from the back seat of the car. 'Why,

it's Silly!'

Two girls sprang out: one of them, who was tall and slim, and had red curls peeping from under a soft felt hat, seized Silly in her arms and looked at her anxiously.

'My dear kid, have you gone raving mad?'

'Oh, Sally, Sally, you're not dead!' and, worn out with terror, the poor little girl burst into a flood of tears.

'Dead!' repeated Sally. 'Why ever should I be dead? I know I'm rather late, but we

had a picnic on the way.'

'THIS LITTLE WORLD.'

SOME PORTRAITS OF GREAT BRITAIN. Drawn by J. A. SYMINGTON.

II.-YORKSHIRE: THE WEST RIDING.

(Continued from page 221.)

BRAMHAM (population 1013), though a small place, is famous for several things. It is the headquarters of the celebrated Bramham Moor Hunt to-day. Hope Hall, the seat of the great Parliamentarian, Sir Thomas Fairfax, is close by. In 1408 Henry IV.'s troops defeated Henry Percy, Earl of Northumberland, and his Scottish allies, on the Moor. And there are many traces of the Roman road on which the township stands.

Brighouse (population 20,277) is one of the most important silk-spinning centres.

CASTLEFORD (population 24,183) is the old Roman Legiolium, and lies on the Ermine Street. Many Roman remains have been found here, including an altar and a milestone of A.D. 249. It is a rapidly-growing town, its chief industry being the manufacture of glass bottles (twenty millions a year!) and similar ware. Its 'modern' name probably comes from its situation at a crossing of the River Aire.

CAWOOD (population 955) had once a palace or manor of the Archbishops of York in Saxon It survived (re-built or altered) till its destruction during the Civil Wars in 1644. It became a castle, and here Cardinal Wolsey was arrested in 1530, just before his death. gatehouse and another building (formerly the chapel) still stand.

CLECKHEATON (population, with BOROUGH, 31,114) is a large borough close to Bradford, and is interested in much the same manufactures as that city.

Conisborough (population 11,059) combines history with practical work. It has a great colliery close by. But, as readers of Ivanhoe will know, it has associations with Athelstan. The keep of its Norman castle is in very fine condition: it dates from somewhere between 1100 and 1200 A.D., and so do parts of the church. Not far away is Denaby, where there is a famous coal-field.

'But, your your hair!' sobbed Silly. 'A

Sally looked bewildered for a moment, then suddenly she began to laugh and pulled off her

'You poor little thing!' she exclaimed,

D. P. SMITH.

parcel of hair-just like yours-and a strange

'Why, look, I've only been shingled! I was afraid Dad wouldn't like it, you know, because

he never would let me have it done, and that's

why I wanted you to tell him before I arrived.

Hilda wrote the message because I was busy

packing. Oh, what a dreadful fright I've given

you—you poor, silly little Silly!

writing which said—break the news—

At DENT, in 1785, was born Adam Sedgwick, a great geologist, who had much to do with the advancement of science at Cambridge Univer-

DEWSBURY (population 54,165) is one of the large boroughs that combine the history of England with that of Yorkshire and English industries. St. Paulinus (one of the earliest missionaries of Christianity, to what was then the Far West) is said to have preached here in 627 A.D., on the site of the present parish church, which contains many Saxon fragments in its fabric, as well as some old glass. The place is said to have been one of the largest Saxon parishes. The present Parish Hall (late thirteenth century) was once the moot (meeting) hall of the Manor of Dewsbury. To-day wool (blankets and worsted) and carpets are the chief industries—the population shows how important they are.

Drax (population 418) is a village near Goole, the great inland port of the West Riding. It has a fine church, and there was once a priory here, but little of it is left now.

(Continued on page 295.)



What Country is this? Put it together and see.

### WHAT COUNTRY IS THIS?

THE black shapes on page 281 make up a l large piece of the Earth's surface, if

properly put together.

The best way to put the fragments together, if you do not wish to spoil your copy of Chatterbox-and no one should be willing to do that—is to trace them through thin paper, cut them out of this paper (mount them on cardboard if you like, for convenience and to make them last)—and then you will see-whatever you can see. Solution on page 296.

#### 'OLD PARR.'

'THE days of our age are threescore years and ten,' said the Psalmist. But if we may believe it there is a record of an Englishman who lived to the almost incredible age of 152 years and 9 months!

His name was Thomas Parr, and he was born in 1483, the son of a small farmer in the parish of Alberbury, in Shropshire. After spending his youth as an agricultural labourer, he succeeded to his father's farm at the age of thirty-five. He remained single until he was eighty years of age, but then, in 1563, he married Jane Taylor. Their two children died in infancy, but Mrs. Parr lived until her husband had attained the respectable age of 112. After her death he remained a widower for ten years, and then married a widow named

Jane Adda, but they had no family.

In 1635 the Earl of Arundel, a great curiosityhunter, heard of Parr, and managed to have him brought to London on a litter at the Earl's expense. He excited great interest in the towns through which he passed, and also in London, where he lodged at the 'Queen's Head' in the Strand. was also presented to King Charles I. change from the pure air of Shropshire to Stuart London, with its open drains and crowded narrow streets, was too much for the old man, and he died in November of the same year. He was buried in the south transept of Westminster Abbey. The inscription over his grave states that he lived in the reigns of ten Princes, from Edward IV. to Charles I. He is also commemorated by a brass plate in Wollaston Chapel, in his native parish.

The celebrated physician, William Harvey, the discoverer of the circulation of the blood, made a post-mortem examination of Old Parr. He could find no trace of disease, and said that his organs

were singularly healthy.

According to his portrait in the National Portrait Gallery, Parr had a long flowing white beard, dark brown eyes, and shaggy eyebrows. John Taylor, a Thames waterman-poet of the seventeenth century,

wrote a poem about him called 'The Old, Old, very Old Man,' and in it he says-

'From head to heel his body hath all over A quickset, thickset, natural hairy cover. . . . He ne'er knew history nor in mind did keep Aught but the price of corn, hay, kine or sheep; Day found him work, and night allowed him rest. Nor did affairs of state his brain molest.'

Had he been an intellectual man, taking an interest in national affairs, what a diary he could have kept! Born at the end of the thirty years' struggle called the Wars of the Roses, just before the battle of Bosworth Field, he was nine years old when Columbus discovered America. He lived right through the Tudor Period, perhaps the most stirring years of English history, which saw the Dissolution of the Monasteries, the Reformation, the religious persecutions, the revival of learning, and the plays of Shakespeare. He was eighty years old before guns were made in England, The smoking of tobacco was introduced by Sir Walter Raleigh when Parr was about a hundred years old, and one would like to know whether the old man ever enjoyed a pipe! Guy Fawkes would have been a real person to him, not merely a pretext for letting off fireworks. He could have written a contemporary account of the long wrestle between King and Parliament, which went on during the reigns of James I. and Charles I., and ended in the Civil War. But, alas! it is extremely improbable that he could read or write, and for some years before his death he was blind.

Living was cheap during his lifetime. It is recorded that in 1499 wheat was sixpence a bushel, wine about three farthings a quart, beer sixpence a barrel, cask included, and for a penny one could get 'three great loaves.' Even allowing for the difference in the value of money, such prices seem extraordinary to us. The past had many drawbacks, but dear food does not appear to have been one of them, and if it could sustain a working man for 152 years—and keep him working for nearly 130—there must have been something potent in its nature which is not there nowadays. S. M. F.

## THE MATCH THAT LOST ITS HEAD.

F course a match that loses its head when it is struck is no good, and it is thrown away in disgrace. There was once a match which was so afraid of losing its head that it made itself quite miserable. Whenever the box was opened it would slip below the other matches, whispering, 'Please go instead of me. I know I should only lose my head.' At last there were only two other matches left.

One day the box of matches was taken for a picnic—not, of course, that any one thought the matches liked picnics, but in order to light a fire to boil the kettle for tea. When the children had gathered plenty of sticks, their father laid the fire very carefully, for it was a very windy day, and then he opened the box for a match.

'Hullo! there are only three matches left,'

he said.

'Oh, don't try me. I know I shall be no good!' cried the nervous match, slipping away from his fingers so that he took one of the others. Sheltering it with his hat, he struck it. Up sprang the little flame, and 'Pouf!' went the wind and blew it out.

The children looked very grave as their father took out the next match, for if they could not get the fire lighted there would be no tea. He waited till the wind dropped,

and then struck it very carefully. Up it blazed.

'Hurray!' cried the children. But at that very moment up rushed the wind again and out it went.

'This is our last chance of tea,' said their father, and he took out the nervous match.

'Oh, dear! Oh, dear! I'll do my best, but I know I'll lose my head!' it cried as he struck it. And sure enough, it did! As the head burst into flame it fell off.

'Oh!' cried the children in dismay, and then, 'Look! Look! Hurray!' they shouted. For the match's head had fallen right in the middle of the paper out of reach of the wind, and had lighted the fire as neatly as possible.

'After all,' thought the match happily, as the kettle began to sing, 'I did the job, though I did lose my head!'

M. BRAIDWOOD.

## THE DIM RED DAWN.

By Mrs. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' 'Princess Ooma,' &c.

Illustrated by E. S. Farmer.

(Continued from page 275.)

THEY both spoke low, but they had now woken Bobo and Brild, who also stared at Lulu, puzzled, while she looked from face to face gaily.

'I am going to the huts. I wish to see them again. I am going now,' she announced.

'Now?' said Bobo, surprised, naturally.
'Is not the morning soon enough for you?'
At which Lulu remembered that no one but herself was aware as yet that the forest people had gone.

'We cannot attack,' she told Bobo. 'They have run away.' She waved towards the trees. 'They have gone back to their country, and we must go back to the cave and wait a little longer. We must go when the sun rises. But having come so far, I would like to go a little further,' said Lulu airily.

'And I would not,' Bobo retorted firmly. 'If you have sense enough to see you must return, why run into danger foolishly?' Which retort, if unanswerable, did not impress his niece. Lulu was on her feet by this time. She had no use for logic at such

'Stay behind and sleep,' she said to Bobo. 'Come, Zip-Zip. Come, Zan. We will ride

on Hrump in and out among the huts. In the morning his footsteps will be everywhere. The tribe will see how Churruk guards it. The tribe will see he cannot protect himself.'

Laughing, she ran towards Hrump to coax him, but he required no coaxing. He had had his little sleep. He needed no more that night. He liked the cool dark forest far better than the neighbourhood of the fire. Up the track he was most willing to go. A moment more, and Bobo and Brild were alone by the pool.

'O-o-o-h!' sighed Brild. As yet but half awake, he had even been afraid that Lulu might insist on his accompanying her. Now she had gone he felt happier until he saw that his father was scrambling to his feet. Bobo had in fact just realised with some force that Lulu had left him in a position that was far from desirable.

'We had better follow and follow quickly,' said Bobo grumpily. 'She has taken Hrump. The forest folk have gone. And you,' said Bobo to his son, sourly, 'would be of no use to me if anything out of the night attacked us.'

## CHAPTER XXXIV.

FROM OUT OF THE GRAVE.

HRUMP had already had too much of a start to make the following of him easy. And he covered so much ground with each stride that Bobo and Brild had, in a sense, thrice as far to go. He could also see in the dark far better than could they; he who had lived in the open until Lulu had tamed him. They did not catch up with him until he had almost reached the clearing. Close ahead they could see him then, lurching along, with Lulu, Zan, and Zip-Zip swaying to his stride.

'Father, let us hide,' Brild implored, clinging to Bobo's tunic. He had run from the pool willingly enough, so frightened because Bobo was afraid he had forgotten everything else. But now Brild remembered how close he was to Churruk; he recalled what he had planned. Though there would be no fighting, as he had expected, beyond the edge of the clearing Brild certainly did not wish to go. And Bobo also. on reflection, deemed it best not to follow

further.

Bobo had begun to appreciate the game that Lulu was playing. If he followed Hrump into the open, his, Bobo's, footmarks would be stamped on the ground also. Let the tribe think a huge and lonely beast was haunting them, a beast that had no traffic with man at all. Behind a tree Bobo halted to watch while Brild

flung himself down.

Hrump was clear of the trees by this time and had halted too. Silent he stood, and the three on his back were silent as well. As they rode through the forest they had whispered together, but as they looked at the huddle of huts, dark blotches in the clear starlight, they were too excited to talk. To Zan the huts were almost novel. He had practically forgotten what a hut looked like. Zip-Žip they reminded of a life far from happy. Lulu looked at them a shade surprised, for they seemed smaller and not so numerous as she had thought. But Zend's hut still towered above the others; Zend's hut which now was Churruk's, she sup-

And at that, angrily she looked round for Zend's grave. It was no longer open. The earth was piled high above it as Bobo had foretold; something in the sight made Lulu angrier yet. Churruk lived. Zend was gone. The fact came home to her with a new force. She pressed Hrump's neck with her heels, urging him on. Yes, she would frighten them,

these people. They should point and gibber when they woke in the morning.

'What shall I take of Churruk's?' she began to ask herself as Hrump obeyed her, though now with growing reluctance; the smells all about him were so strange, smells he had never smelt before and which he did not like at all. He had grown accustomed to mankind in the cave, but his companions had been few and the cave was big and airy. About the huts there was a stuffiness. It came oozing out of the floors and sides, and hung heavy in the night air. And queer sounds came from the huts too; rustlings and snortings as a sleeper turned or dreamt, that made Hrump restive.

'On!' he could hear Lulu urging softly in his ear. This was the hardest thing she had asked of him since she had made him face the water, but that occasion he had not forgotten, and he still obeyed. In and out among the huts, round each in turn Lulu took him, reserving Churruk's to the last for her titbit, But there were more huts than she had thought at first, she found, and presently she saw she must not linger. It was already past the hour when she and Zip-Zip had left Ullah to run with Zan between them to the pool.

Across to Churruk's hut she crossed quickly. She would take the pegs that held the hutcurtain in place, she decided; that was as close as she could get. And Bobo, still watching from the shelter of his tree, saw Lulu check Hrump opposite Churruk's doorway, and slip to the ground off Hrump's neck.

'And now what idiocy is this?' said Bobo

to himself uneasily.

He had grown cold standing still, and had been finding Lulu's game monotonous. He had ceased to be amused. And moreover, he was aware of something which she, deep in her performance, had missed. From within the huts no longer came rustlings and snortings. Instead there was a tense, strange stillness as marked as the enveloping smell.

'That great thing tramping round. They have woken of course. The very ground must be shaking,' Bobo told himself, dismayed that he had not foreseen this possibility. He began to wish that after all he had stayed by the pool. He knelt down and put his ear to the

ground to listen.

'What is it?' Brild asked feverishly. He had been living all this time through a hundred nightmares. He had covered his eyes with his hands to shut out the place where Churruk

slept until he could remove himself to a safe distance. Pressed close to his father he felt Bobo kneel, but what this portended Brild could not imagine. Something awful he was sure in any case. Bobo's answer set him shivering anew.

'I can feel it quiver when Hrump lifts a foot and puts it down again. The earth!' Bobo explained. 'The tribe is awake. There is no sound. Listen.'

Already Lulu had tip-toed to Churruk's doorway and crouched low to feel for the pegs. And as she crouched she too grew aware of that queer, strained silence that almost spoke. She felt it as a menace ere she fathomed its cause. Swiftly she looked over her shoulder at the other huts, next round the clearing, and lastly at Zend's grave.

(Continued on page 290.)



Garibaldi in his famous Red Shirt.

## A COUPLE OF PORTRAITS.

THERE are a lot of famous people of whom Chatterbox has not been able yet to print pictures, but who have been talked about in these pages recently. Here are two of them.

The first is Garibaldi, as he (so to speak) dressed for the part in his red shirt. The second is a



Jonathan Swift.

much more revolutionary person. Garibaldi upset the political state, though he also showed that political ideals could be carried out, and were as strong and fine as what might be called 'practical' and 'theoretical' ideals. But the other portrait is that of one who upset the human mind by a different sort of revolution—Jonathan Swift, Dean of St. Patrick's, Dublin. He saw through our pretences—the pretences of the mind: while Garibaldi attacked the humbug of an old kind of society of little pretentious kingdoms which were worn out; and he fought for Freedom against convention.

## BRIDGES.

By P. M. BAKER, B.Sc., M.B.E., A.M.I.E.E., A.M.I.Mech.E.

Illustrated by BERNARD WAY.

(Concluded from page 268.)

THE PNEUMATIC RIVETER. — The pneumatic riveter, which works by means of compressed air, is a different type of machine from

the hydraulic one which has been described and is, in some ways, more useful. The hydraulic machine, as was pointed out above, can only

work at a limited distance from the edge of the plate on which it is working. The pneumatic riveter, on the other hand, actually hammers the red-hot rivet down to form the new head and does not rely on squeezing. When a hammering action is used in riveting it is not necessary to have the frame reaching round to the other side of the job. All that is required is that a heavy weight shall be held against the head of the rivet while the hammering takes place on the other side.

There is an important elementary scientific fact involved in this operation. The hammer in descending upon the rivet travels at considerable speed and, on account of that speed, it has a certain store of energy. it is suddenly brought to rest by striking against the rivet its energy of movement is converted into another form, being expended in an impulse which it gives to the rivet, tending to flatten it out. This impulse is of very short duration. Unless prevented, it would of course shoot the rivet out of the hole, but if a heavy weight is held by hand or otherwise against the head of the rivet, the impulse is not able to overcome the inertia of the heavy body, i.e., it is unable to set the heavy body in movement in the short time for which it acts, and, in consequence, all the energy of the impulse is expended on the rivet.

Many engineers, who have to do with bridge and other work involving riveting, consider that the pneumatic riveter swells up the rivet more evenly, right through the holes in the plates, and causes it to fill them more completely than the hydraulic riveter does. The pneumatic riveter consists of a single-acting engine in which the piston is operated upon by compressed air supplied through a long flexible pipe The piston itself forms part of a heavy hammerhead of which the front end acts on suitable tools for forming the rivet head—usually a 'set' with a cup-shaped end to form the 'snap' heads.

The valve which controls the air supplied to the cylinder and its exhaust is often operated by the piston itself uncovering ports in the cylinder wall. One marked difference will be observed by any one who looks on at both hydraulic and pneumatic riveters. The hydraulic process consists of just one silent squeeze, while the pneumatic riveter is very noisy, as it gives a succession of rapid and noisy blows to the rivet.

## MOTHER INSTINCT.

A TRUE STORY OF AN ELEPHANT.

A N elephant belonging to the owner of a teat plantation in Assam was required one day to journey some miles from her home in order to help in the transportation of timber.

The elephant at the time had a young cub, which she could not be persuaded to leave. With great difficulty the coolies managed to drive her repeatedly a certain distance along the road, but on each occasion she turned back, obstinately refusing to continue the journey without her cub.

When the owner was informed of the animal's behaviour, he found himself in a dilemma, for the elephant was the only means available for carrying the heavy logs of wood which had to be moved, and it was evident that the baby elephant had not the strength for the journey, as the country was exceptionally hilly.

Many hours were spent in vain endeavours to coax the elephant, but as she proved obdurate, there seemed no remedy but to allow the cub to accompany its mother.

The journey was commenced once more, but with grave misgivings on the part of the teaplanter and his servants.

All went well until the first hill was reached, when the baby elephant showed itself unable to mount it.

With a gentle movement the mother knocked the cub over on the ground, and it instinctively curled up like a ball. The mother then patiently rolled it up to the top of the hill, whence it continued the journey in the usual way.

This assistance was repeated each time a steep gradient was reached, and the journey was finally accomplished to the satisfaction of all—not to speak of the amazement and admiration of the onlookers at this wonderful display of mother instinct.

JANET MARSDEN.

#### GIPSIES.

(Concluded from page 271.)

PAM waited in a dark corner, though she was terrified of being found. Presently John came back.

'I've got bread and cheese and cake and plums,' he said. 'Here, catch hold and come on.'

Pam seized the bread he gave her, and they slipped into the drawing-room and quietly opened the long French window.

We shall be able to get in again if we want

to,' said Pam; but John said:
'Why should we want to get in? Gipsies

don't live in houses.'

'No-o,' agreed Pam, but she was glad the window was left open all the same.

They ran through the garden and the little wood, and climbed over the stile into the field. There outside their tent they ate a lovely supper.

Doesn't it feel funny and creepy being outside in the dark? I do love being a gipsy,' laughed Pam, cramming bread and cheese into

her mouth.

'So do I-but I could eat tons more,' said John; but they were too lazy to go back for more food.

'I'm so sleepy,' yawned Pam. 'Besides, it's

rather cold.

'Tuck in, then,' said John. 'I'll have a look round first,' and he took his big stick and walked all round the tent in the dark, just to make sure everything was all right, he told Pam.

It wasn't very comfy in the tent, even though they had heaped up all the cushions they could find, and for a long time the children could not get to sleep. Besides, there were such very queer noises.

'What's that, John?' whispered Pam, every time an owl hooted, or a rabbit rustled through

the bushes.

'It's rather frightening being a gipsy,' thought the little girl, but she didn't tell her brother so.

'Suppose it rains?' she couldn't help asking.
'What shall we do?'

'It isn't going to rain, you silly!' grunted 'Look at the stars. And shut up, Pam

—I was nearly asleep.'

So Pam cuddled under her rug, and at last she did get off to sleep. But it only seemed a minute before she was awake again, sitting bolt upright, and holding her breath to listen. For something was moving slowly and stealthily outside the tent-something that snorted loudly, something that was so large that it blocked out the light that came through the opening.

'John!' screamed Pam, 'something's knocking the tent down. Oh, what is it?'

John woke with a jump, as the flimsy tent shook over their heads. He peered outside.

'Why, it's only an old cow!' he said.
'Where's my stick? Get out, you brute!'

With a snort and a flourish the cow moved off. They could hear it galumphing in the darkness. 'Oh! I didn't know there were cows in

this field. What shall we do?' gasped Pam. 'Stay here, of course,' snapped John. 'What do you suppose gipsies do? They're not afraid of cows.'

'I suppose it's all right,' sighed Pam, snuggling down again, as John went to sleep. But she couldn't get to sleep herself-no, she never closed her eyes for one wink. She was listening all the time to hear if the cow was coming back.

Soon she noticed the sky had clouded over, and the stars no longer peeped down in their friendly way.

'It is going to rain,' she thought, not daring

to wake John again.

It did worse than rain. It thundered. It lightened, it poured down in torrents. A wind sprung up and blew away the rugs. The tent was gone!

John sprank up in a fright. 'What's happen-

ing?' he cried. 'Have they come?'

Who?' asked Pam, nearly crying. 'Nobody's come. It's a thunderstorm.

'Oh! I thought the gipsies had come to steal us, said John. 'Jove! That was a bad

one-we'd better go in.'

And so in the drenching rain, two wet little figures ran through the wood, now stumbling in the darkness, now rushing through the vivid flashes of lightning. When they got to the house they found all the rooms lit up, and figures rushing about inside. No need to creep in through the drawing-room window. Blinking, they walked through the open front door into the lighted hall.

'Here they are!' cried a voice, and Cook and Nurse and Lucy came running from all

'Naughty children! Where have you been? We thought the gipsies had stolen you,' scolded Nurse, carrying them off to hot baths and warm beds.

'Oh, no,' explained Pam. 'They didn't steal

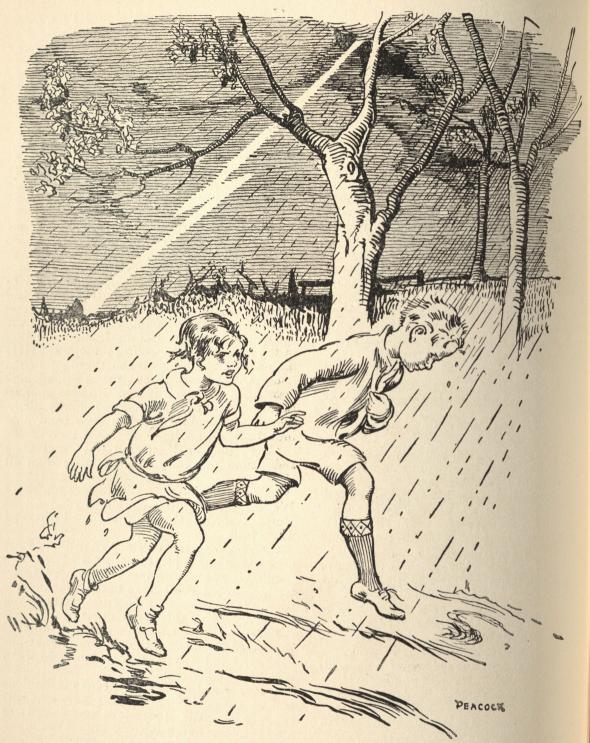
us—we were only playing at gipsies.'
'Playing at gipsies, indeed!' snorted Nurse. 'A nice tale I shall have to tell your mother when she comes home to-morrow. I hope you enjoyed yourself this lovely night?'

Well-I didn't much. Did you, John?' shuddered Pam, as the thunder crashed outside. 'Yes, I did. It was great fun,' said John

stoutly. 'I shall do it again.'

But they had forgotten the rugs and cushions and the feathered hat, and they were all spoilt in the rain. And Mother was not pleased; so after all, they never did play gipsies again.

Instead, John joined the Boy Scouts, and gets as much real camping every summer as he wants. JEAN GORDON.



"In the drenching rain, two wet little figures ran through the wood."



"Alone-but at bay."

### THE DIM RED DAWN.

By Mrs. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' 'Princess Ooma,' &c.

Illustrated by E. S. Farmer.

(Continued from page 285.)

ZEND'S grave? Lulu's fingers dropped from the peg round which it had already closed. Over her mouth she pressed her hand instead to stifle a cry. Then with one bound she had reached Hrump: Zip-Zip and Zan were hauling her on to his neck. Hrump had swung round. They were all facing the mound that was Zend's resting-place. From behind it something was emerging. Lulu had seen

a shade detach itself ere she leapt.

'Zend?' said Lulu to herself, her mouth dry, her heart thumping. It was one thing to speak to Zend invisible, another to face him as a spirit. What would he look like? Of the skeleton beside the pool she thought, and there came back to her that curious scent there had been about the grave. That grave that, despite the weight of earth above it, could not hold Zend; in this she felt a curious sort of pride. Yet she had always thought of Zend as wandering. Why, then, was she surprised that he should wander now? And at a distance he seemed human, clad as men were clad.

Slowly the shade drifted towards Hrump: the shade that might be Zend. With head bent down it walked, hands clasped in front of it. It had not seen Hrump as yet, Lulu thought. And then Hrump blew softly through his trunk. The thing was looking at him. It looked again. A scream it gave—a scream shrill, high and piercing. And from the huts

there came an answering groan.

CHAPTER XXXV. ZEND'S SON.

'THAT,' said Lulu, breathlessly, 'is not Zend.'

'That,' said Zan, breathless also, 'is my mother.'

The groan could have come from the tribe only. It had died down, and the scream also. The shade which Zan said was Ullah had slipped again behind Zend's grave, and now it was Zip-Zip's turn to speak. Spirits, threatening or not, might be abroad. The tribe might be very frightened, but some one would peep inevitably. And then something unpleasant would happen next.

'Go back to the forest while there is still

time, Lulu,' Zip-Zip implored. And so strongly did she feel that there was need for haste that she pricked Hrump with her spear as she had seen Lulu prick him. Not on his head, however, which she could not reach, but at the root of his tail. It was the first time she had tried to deal with him, and, flurried, she struck too hard.

'Hr-r-ump!' Hrump snorted, outraged. What he had done that he should be punished he could not guess—to be stabbed thus savagely. And instantly he swerved and backed. Into the hut that was next to Churruk's he crashed, making a churned-up mess of it. And out from Churruk's hut that was in front came Churruk bolting, afraid he might be attacked in turn. Churruk had kept his head to some extent, however, for he had armed himself with a huge club. He stood, resting on it, and staring at Hrump, who was still backing restlessly. On either side there were people in the open too by this time: from many other huts heads were emerging.

'Quick, Lulu! quick!' Zip-Zip urged once more, though she did not touch Hrump again, lest he should back in another direction. 'Away!' she cried shrilly, for what need was

there of caution now?

'Ho!' said Churruk at that. He had only looked at Hrump hitherto; at the great bulk that towered above the huts. Gradually he raised his eyes to the three who sat enthroned on top. The tribe were looking at them also, and from all sides.

'Who are they?' What are they?' came a murmur, and some one in the distance tried to answer. The oldest Elder, Lulu thought it was, but she did not turn to look. She preferred to keep her eyes on Churruk instead. And as she looked at him, her hand shifted along her spearshaft to the spot where it would balance best for a throw. She had not thought she would actually see her enemy. She had not known how furious the sight would make her. Simmering, she glared.

'It is the spirits of those who were lost in the forest riding on the spirit of the thing we found beside the pool,' said the voice that was like the voice of the oldest Elder. And once more there came a groan, followed this time by feet that ran.

'They are gathering by Zend's grave,' Zip-Zip warned. 'Lulu, they may attack.'

A moment yet Lulu paused. Her fingers itched to throw the spear. It was certainly not fear of Churruk that checked her. But, unluckily, once more she was discovering that Bobo could be right. To throw from Hrump's back would be a gamble; he would not keep still, as Bobo had said. From leg to leg Hrump kept shifting, more restless even than he was usually because of the tangle about his feet. And if she threw and missed she would have accomplished nothing, and would lose the spear on which she set so much store. sullenly, she lowered it.

'We go, then?' Zip-Zip murmured, happier. But it was Zan who answered unexpectedly. Zan had sat silent since he recognised his mother. He had faced Churruk silent still.

Now suddenly he spoke.
'Go?' shouted Zan indignantly. And out went his hand to snatch at the sling he had coveted, which lay with a bag of stones

against Lulu's hip. Lulu felt the tug and turned, but Zan had been too quick for her. Ere she could stop him, a stone was on its way.

'Then I will kill him, Lulu, if you will not,'

she heard him cry.

'Ho!' said Churruk again. He was unhurt. Past him the stone had whizzed and into the hut wall.

'That was no spirit stone,' Charruk muttered. The light was so strong now that Lulu could see his face plainly. He looked dazed still, but angry too; alone, but at bay. He lowered his head a little so that it sank into his thick neck,

and up above it whirled his club.

'Back!' it was Lulu's turn to cry. If the club fell on Hrump, he might be injured terribly. Somehow she had not thought of this before. The club could not reach the three of them on Hrump's back; it would be he alone who would suffer. Again Lulu shifted her grip upon her spear. Better to lose even it than to lose Hrump. And past her ear as she took aim flew another stone.

'From Zan, the chief,' cried Zan, impenitent.

(Continued on page 298.)

### MY DIARY.

Written and Illustrated by RUTH COBB.

XI.—STAGE DIARIES.

WILLIAM MACREADY was a sixth form boy at Rugby when his father, who was a theatrical manager, failed, and was put in prison for debt. The boy came home and took command of his father's stranded company. He had not intended to become an actor, but to go to the University, and enter one of the professions. His father could no longer afford that, and, when he was at liberty, once more decided that the best thing for the boy to do was to go on the stage, and that his first performance should be as Romeo. John William Macready had acted in Speech Day plays at school, but had received no special training. He was advertised as a 'Young Gentleman, being his first appearance on any stage.' This was on Thursday, June 7th, 1810. He made a success at once, so much so that by the time he was twenty-three, he was one of the most famous actors of his time.

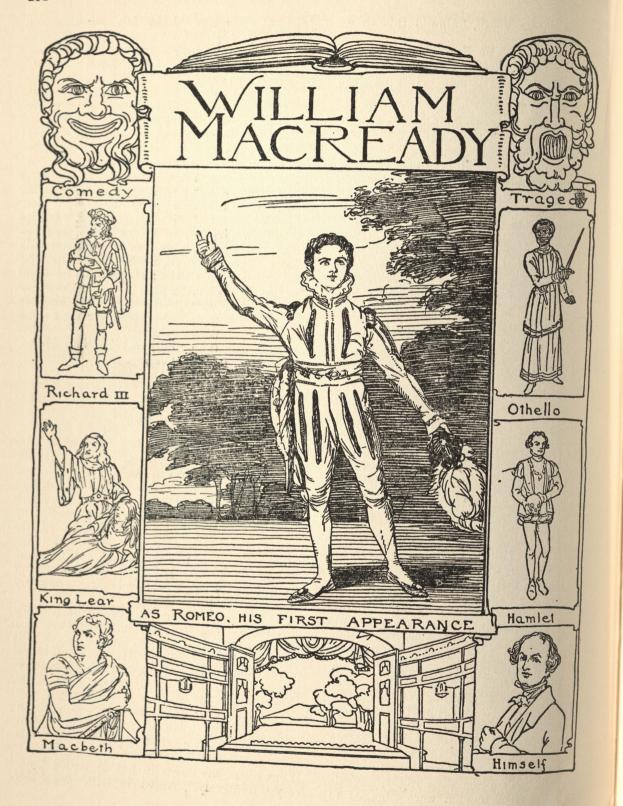
In those days, at the provincial theatres such as Bath, Norwich, and Leeds, stock companies were playing. They generally performed a different piece each night. Wellknown actors from London were engaged to

play the chief parts, knowing little about the rest of the company, generally much inferior to themselves, till they arrived at the playhouse. We have an account of this sort of life in the memoirs of Tate Wilkinson, an actor-manager in the country, who wrote, in the character of 'The Wandering Patentee,' a history of the Yorkshire theatres in 1770.

It was with companies of this kind that Macready acted a great deal, and scathing criticism of the other performers was constantly

entered in his diary.

He does not appear to have kept a diary until he was nearly forty, but from that time there were almost daily entries, until his retirement from the stage. He was very critical of his own performances, and constantly says such things as—'Aug. 29, 1833. Acted Lear, how? I scarcely knew. Certainly not well, not so well as I rehearsed it, crude fictitious voice, no point, in short a failure. . . . Nov. 4th. Came to town. Ran directly to rehearsal, and very attentively went through Henry V. Went home, lay down in bed and read Henry very attentively. Acted it with more self-



possession than I have felt before a London audience for years. Three accidents, however, occurred (on such trifles does an actor's success depend) that damped the general effect of the play, which I incline to think I acted well; my truncheon broke in my hand during the great speech to Westmoreland, which for a moment disconcerted me—Mr. Russell was not called to his time and cut out his part—and Miss Phillips bewildered me in the last scene by



Fanny Kemble.

forgetting her speech to me. I never in my own mind acted the part so well.' And again on Feb. 19, 1840: 'Went to Drury Lane Theatre. Acted Ruthven fairly, was called for and received by the audience. Very much disgusted and irritated by Mr. Elton walking out in the last scene, and converting what was arranged as a most terrible and picturesque murder into a miserable hustle. I was excessively annoyed . . . a most wretched specimen of imbecile vanity.'

Macready was an exceedingly touchy person, and a good hater. He knew his weakness, and there are many repentant entries in the diary, following forcible ones of a few days before. It did not matter who it was—his greatest friends came under his lash: Forster, known chiefly as the biographer of Dickens, Dickens himself, although at heart Macready loved his friends dearly. Of anybody else connected with the theatre he seldom had a good word, whether they were actors or actresses. He was intensely jealous. Fanny Kemble, a

beautiful contemporary of his, came in for much of his criticism.

Strangely enough, she also kept a diary, and went on to the stage from very similar circumstances. Her people were also actors. She was a cousin of Mrs. Siddons, the famous tragedienne. They failed when Fanny was a young girl, and she begged to be allowed to become a governess, and so help the family finances. Her mother instead gave her the part of Portia to learn, and then that of Juliet. Her voice was tested in the theatre, and then her parents decided that she should make her début in London in that part. For three weeks she rehearsed it, and that was her only training. She herself said later, writing of her early life, 'I do not wonder, when I remembered this brief apprenticeship to my profession, that Mr. Macready once said that I did not know the elements of it.' She made a great success in the part, however, and became



Fanny Kemble's first appearance as Juliet.

at once a popular favourite, appearing with her hair dressed in the style that she usually wore, and in a white satin evening dress with a long train, made in the fashion of the moment. Her mother thought it would be too unconventional for her to wear the mediæval dress of Verona of the right period, and that it would be considered unusual.

Juliet was not, however, her favourite part. She says in her diary, on Monday, June 6th, 'The house was very full at the theatre this evening. I acted well, I think, the play was Romeo and Juliet. I revelled in the glorious poetry, and the bright throbbing reality of the Italian girl's existence, and yet Juliet is nothing like as nice as Portia—nobody is as nice as Portia.'

Amusing incidents sometimes occurred also at her performances. She describes how clumsily the actor who was playing Romeo behaved. 'In the midst of "cruel, cursed fate" his dagger fell out of his dress, I embracing him tenderly, crammed it back again, because I knew I should want it at the end.

'Romeo: Tear not our heart-strings thus! They crack! they break! Juliet, Juliet!

'Juliet (to corpse): Am I smothering you? 'Corpse (to Juliet): Not at all; could you be so kind as to put my wig on again for me? It has fallen off.

'Juliet (to corpse): Where's your dagger?
'Corpse (to Juliet): 'Pon my soul, I don't

While on tour with her father in America she met and married a Southern planter. She still continued on the stage for a while, being known as Mrs. Butler. She was afterwards very successful as a Shakespearean reader. She had many other interests, of which she writes, besides her public life.

'Finished journal, wrote to my mother, read a canto of Dante, and began to write a novel. Dined at five. After dinner put out things for this evening, played on piano, mended skirt, dressed myself at a quarter to ten, and

went to the theatre for my father.'

Macready has many references to Fanny Kemble in his diary, and they are never in her favour. 'Feb. 19th, 1848. Rehearsed Macbeth, Mrs. Butler, the Lady Macbeth. I have never seen any one so bad, so unnatural, so affected, so conceited. She alters the stage arrangements without the slightest ceremony, and in fact proceeds not only en grande artiste, but en grande reine. She is disagreeable, but her pride will have a yet deeper fall, I feel confident.'

Being a diary writer himself, with no intention of publication, he objected to the publication of Fanny Kemble's early diary and Record of a Happy Girlhood.

'Feb. 7th, 1835. Was extremely disgusted with the pert, flippant, and vulgar tone of some of Miss Kemble's Journal. I had given her credit for rather a superior understanding. I think her a shallow, instead of a clever

impostor.'

'May 26th. Read Miss F. Kemble's Journal—a confirmation of my original opinion of her presumption and conceit. . . . It was evidently written for publication, and the papers are not the actual thoughts and feelings which a person notes down for the purposes of reference and self-correction, but what a person besotted with the flattery of the ignorant, and undiscriminating, elaborates for effect, and to support the reputation she arrogates as belonging to her.'

But Macready had a softer side. He was devoted to his wife and children, and he liked to entertain his friends at his house at Elstree. There came many famous people, Mr. and Mrs. Carlyle, Bulwer Lytton, Thackeray, Dickens, Maclise, Browning, and many more, all delighted to be his guests, loving their host in

spite of his hot-headedness.

Macready retired from the stage when he was sixty. The last entry in his diary is on 'Feb. 26th, 1851. Farewell to the stage. My first thought as I awoke was that this day was to be the close of my professional life. . . . Acted Macbeth as I never before acted it, with a reality, a vigour, a truth, a dignity that I never before threw into my delineation of this favourite character.'

At the close of the performance Macready made a speech to the audience, and so he finished his career. 'With sentiments of the deepest gratitude, I take my leave, bidding you, Ladies and Gentlemen, in my past professional capacity, with regret, a last farewell.' And on that day also, he finished his diary.

## 'THIS LITTLE WORLD.'

SOME PORTRAITS OF GREAT BRITAIN. Drawn by J. A. SYMINGTON.

II. THE WEST RIDING OF YORKSHIRE. (Continued from page 280.)

DONCASTER (population 54,052) is another large town, which perhaps some people know chiefly because of the famous horse-races—the St. Leger is run there every September.

The race was started, probably, many years before, but the earliest records of it begin in 1776. However, that is young for Doncaster, which was a Roman station (Danum) on the great

road, the Ermine Street. The parish church was built in 1204, but burnt down and rebuilt in 1853; and there were two friaries here. St. Thomas's Hospital was built in 1558, the fine town hall or Mansion House in 1745–1748. And there was nearly, but not quite, a great battle on the river Don in 1536, when Yorkshire rose against Henry VIII. in the 'Pilgrimage of Grace.' With all that mixture of history behind it, the borough to-day is one of the chief railway centres of Yorkshire, and has large engine works, as well as a number of other flourishing industries.

Fountains Abbey and Fountains Hall (both near Ripon and one another) are very closely connected, for the Hall is in part built of the old stones of the Abbey, which is one of the most lovely ruins in England. It was founded in 1132 by the famous Archbishop of York, Thurston, and for a time before that the monks lodged under the 'seven sisters,' seven great yew-trees. The present buildings, part of which are very well preserved, were begun A.D. 1204. The 'cloisters' (really the 'cellarium') were three hundred feet long, and there are many styles of architecture in the beautiful remains. The Nave and the Chapel of the Nine Altars are specially fine.

The Abbey, however, was sacked after Bannockburn, in the fourteenth century, by the Scots; and when the monasteries were dissolved it of course ceased to be an abbey. In a way, however, the building was not lost, for, as has been said, Fountains Hall was built of its stones: this was built in 1611, and is one of the finest private houses in Yorkshire.

GIGGLESWICK (population 994) contains one of the two chief Public Schools in the West Riding. It was founded by Edward VI. Dr. William Paley (1743–1805), who wrote the famous *Evidences of Christianity* (once very widely read), was a native of this place.

Goole (population 20,332) is a remarkable place—a great seaport far inland, almost half-way across the breadth of England at this point. Cross Channel and North Sea steamship services run to the Continent. There is a swing-bridge over the Ouse like those described in this volume, and over three miles of quays. Much ship-building is done.

Halifax (population 99,129) is one of the larger modern manufacturing towns. Though there are records of its history for many centuries, they are not very exciting. In the

fourteenth century, owing to the number of thieves who stole Halifax cloth (still the chief manufacture), the town set up a kind of local Lynch Law, though it was treated formally: it was known as Gibbet Law. A sort of primitive guillotine was used to behead the thieves.

Defoe visited Halifax in 1727, and found it very prosperous. About fifty years later, the Crossleys founded the great carpet-making industry, and the Akroyds introduced powerlooms from France. The Parish Church is a very fine old building. The inventor of logarithms, Henry Briggs, was born near here in 1556, and Copley Fielding, the painter, in 1787: so also was George Birkbeck, the first founder of Mechanics' Institutes. The Grammar School, which contains the old church clock, was founded by Queen Elizabeth in 1555.

HARROGATE (population 38,938) is noted for its natural mineral waters, the oldest known spring of which was discovered in 1576. It is a growing health resort, with steep, high hills all round.

HAWORTH (population 6605) is near the much larger centre of Keighley (pronounced Keethley—population 41,492), but is probably even more widely known as the birthplace of the great novelist, Charlotte Bronte, and her sisters: their father was vicar of the place, and many relics of the family are in the local Bronte Museum. Various kinds of woollen goods are manufactured at Haworth, as also at Keighley.

Huddersfield (population 110,120) is occupied chiefly with the huge woollen industry and with engineering. One of its notable inhabitants was Henry Venn (1725-1797), who was largely instrumental in founding the Church Missionary Society. Though to-day Huddersfield seems to be not much more than a modern, well-arranged, populous and very prosperous town, it has an ancient history. Its name probably comes from Uther, the father of King Arthur; and Arthur was most likely a real person, a Roman-British chief who fought against the invading Saxons, and fell in 'that last great battle in the west,' somewhere in Somerset or Dorset. The town is mentioned in Domesday Book. It owes its fortunes to the Ramsden family, who bought the manor from Queen Elizabeth in 1599. It had a church in 1073, several times rebuilt since. When Defoe visited the place 150

years or so later, he found it a busy central market for woollens. To-day its chief buildings, of good recent architecture, are symbols

of that continued prosperity.

Near here are two little places of very different interest. One is Almondbury (population 422), with its Castle Hill, 900 feet high, its very remarkable rhymed inscription in the fine church (by 'Gaffer Dyson,' 1552) describing the Passion of Our Lord, its earthworks (probably Norman) on the Hill, and the neighbouring Silkstone Collieries. Many of the village houses are ancient and beautiful. The other place is Lascelles Hall, a tiny hamlet which is almost as famous as those other villages of Hambledon in Hampshire, Sutton-in-Ashfield in Nottinghamshire, or Town Malling in Kent; for hence in the earlier days of cricket came most of the great Yorkshire players—and every one knows that Yorkshiremen can play cricket. Lascelles Hall used to play matches against the whole of the rest of Yorkshire—and win; and it also provided cricketers for other counties. In one year (1867) twenty-two men from Lascelles

Hall (born members of the Club) played against All England. Some of them bore names famous not only for themselves, but for their descendants' doings at the game—Lockwood, Hirst, Freeman, Bates. In 1877 Lascelles Hall provided six of the Yorkshire Eleven and four for the Gents. v. Players' match at Lords.

But cricket is a Yorkshire habit, as it is also in Kent; and both counties prosper in commerce as well—by playing the game.

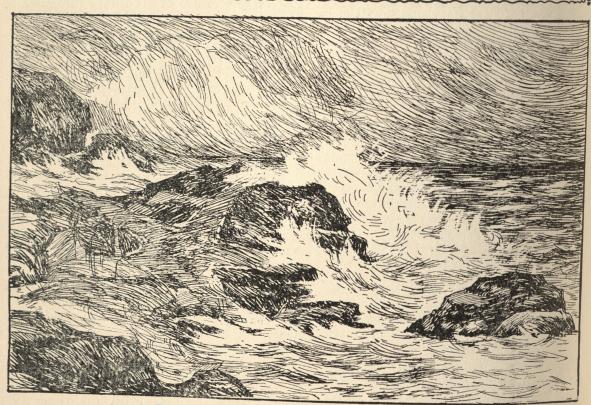
Still one other little piece of history. Somewhere near Huddersfield was the Roman station of Cambodunum, probably at what is now the village of Slack (in Longwood parish). Here many Roman remains—coins, portions of a villa, an altar, bricks, fragments of baths—have been discovered.

The Moors all round Huddersfield are very fine: but so they are all over Yorkshire.

(Concluded on page 316.)

#### THE LOST COUNTRY.

THE Country, or rather Continent, shown in fragments on page 281, is Australia.



Picture Puzzle. Find a Seagull, a Starfish, and a Shell.



"I have brought you Zend's son to rule in his place,"

## THE DIM RED DAWN.

By Mrs. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' 'Princess Ooma,' &c.

Illustrated by E. S. Farmer.

(Continued from page 291.)

THERE was a thud. This time he had hit something. A thud—a roar—a rush! On to the ground shot Zan, Lulu and Zip-Zip; on to the ground where something else was stretched. Something on which Hrump was kneeling while with his tusks he poked and prodded. He staggered to his feet again, but on the ground the thing remained, all flattened,—a thing which had once been Churruk, and at which the huddled people by the grave gazed fearfully.

But they did more than look. They drew together with bristling spears, afraid they would be next to suffer. Hrump was still fuming. It had been he who had been hit by Zan's stone, not Churruk. The stone had caught Hrump's waving trunk and bruised it badly. The bruise still ached and he, in consequence, still panted to destroy, to vent his anger further. Lulu was sure that presently she could soothe him, but certainly for the moment he was best left to himself.

There was something to be done, however, and done quickly. Angry with Zan Lulu might be, but she was asking herself already if what he had done was his work altogether. Zan's stone had gone astray in a sense, but who had directed it? Who had turned it to a purpose so befitting? Was it Zend who had vanquished his enemy with his own weapon? And little as Zan might deserve it, Zend would wish Zan's claim advanced promptly. Lulu beckoned to Zend's people by the grave.

'Churruk is no more,' she proclaimed. 'I have brought you Zend's son to rule in his place.'

# CHAPTER XXXVI. BOBO SUBMITS.

There was no answer from the crowd at first; for a doubtful second it hovered silent. Then from the midst there burst a figure, running—the figure that had crept from behind Zend's grave. Ullah it was, as Zan had said. Thin, worn, dishevelled, but Ullah unmistakably.

'My son! my son!' cried Ullah hungrily. And up to Zan she rushed and flung her arms around him.

'I thought you were his spirit,' Ullah wept.

'I did not dare to look again lest you had vanished.' And her arms closed the more tightly for the fact that Zan was already trying to free himself.

'A chief,' said Zan, not without dignity, 'must not be hugged as children are hugged. You may stand beside me,' he did, however, concede as, dexterously, he managed to wriggle loose.

'Zend's son?' the tribe were echoing now. It was bunched together less tightly by this time. The council of Elders were clustering in the forefront. Again the voice of the oldest Elder was raised.

'Was I right when I said that you were spirits?' it asked. Before Lulu could reply Ullah flung back an answer.

'Spirits or not, what does it matter if we can touch them and they can talk with us? Myson!' she chanted again. But the tribe did not seem entirely reassured. Bobo, still in hiding, watching and listening, began to think it was time he came into the open too. Very little might put an end to this unease. That very little he could very likely supply. And he had not seen Dilda as yet; he was curious to know what had become of her. She had usually been in the forefront of any discussion, her shrill voice overpowering her neighbours.'

'Get up,' said Bobo to Brild, and prodded his son with his foot. The more numerous the invaders, the less spirit-like they would seem, he argued. And, with Brild slinking after him, into the clearing Bobo strolled.

'Let there be an end to all this fuss,' he suggested soothingly. 'We went. We have returned, and that is all. We have brought you a new chief also. You should be glad of it. That can have been of little use to you,' said Bobo, a finger pointing at the pulpy mess. 'What did he do but give you dead meat?'

'And rid you of Dilda,' cried a voice, laughing. And with the laugh the tribe relaxed and broke up into groups. Groups that still avoided Hrump, but that gradually grew less cautious. Bobo had proved more reassuring than even he had expected. He had taken so little exercise while he painted that he had grown fat. He did not look the least like a spirit. And neither he nor Brild seemed to

have any share in Hrump. Moreover, former friends of Bobo's were eager to tell him of Dilda's end, which had been apparently entertaining.

'She ran up to Churruk shrieking when he came back from the forest on the day we buried Zend,' the man from the hut next Bobo's told him. 'And when she found Brild was not with him she began to scold.'

'And Churruk got angry?' Bobo asked feelingly. He could well believe it. Churuk, if objectionable, had been a man after all.

Very angry. He kicked her, but she only velped and screeched the more. And he hit her on the head, and she fell down wriggling and grunting. After a little she stopped wriggling, and that was the end,' the man finished.

'The end!' said Bobo contentedly. And he turned towards his hut, which he now felt might be a much pleasanter place. And he would not have to waste time dealing with Dilda. He could begin at once to paint. And he had a picture already in his head worth the painting, as he had hoped—that charge of Hrump's. The thing on the ground was in too many pieces to serve for a model for Churruk, unluckily. Bobo looked at the fragments critically as he passed.

'Let them be thrown away,' he suggested.

'They are unsightly.'

'Take them away', Lulu ordered curtly, beckoning to the tribesmen, in part to test the strength of her position. She was obeyed instantly, and now she had leisure for Hrump; he had withdrawn to a little distance; he was quivering still, less angry, but forlorn. He had blundered somehow, so he thought, into noise and pain, and gladly he made Lulu welcome. She comforted him, and sent Zip-Zip for water for his hurts, and Ullah fussed over Zan near by, telling her son of her doings in his absence.

'After they put Zend in the earth, I would not go again into the hut that had been his,' Ullah related. 'Day and night I stayed beside him. I thought he might return. But though he did not come, you came instead. You, whom I thought I had lost for ever,' said

Ullah, crying and laughing.

'And I brought Zan,' Lulu could tell herself. She had done her share, she could feel, if Zend had completed it. But she was beginning to wonder already what would come next as she poured the water Zip-Zip brought over Hrump's trunk. She had seen herself in the past as Zan's

guide and counsellor. But would that, after all, be satisfying? Was the tribe she had already begun to despise, and that had so easily been cowed into submission, worth directing? When Hrump had been consoled and soothed and shown where the tenderest branches grew, Lulu, vaguely restless, followed Bobo to the hut that now must be her home again also. Bobo already had a flat bit of tree bark on the ground in front of him on which he was smearing clay, while Brild, making the most of Lulu's new importance with a promptitude which, she owned, did him credit, had already asked the Elders for wood and meat. He had also rejected, saying that she would not like it, a lump of dead mammoth, in favour of a kid snared close to the clearing that the oldest Elder had been keeping for himself. He had lit a fire; the kid was roasting. Lulu actually looked approvingly at him as she came to a standstill beside Bobo.

'The clay lies quite smoothly on the wood,' said Bobo. 'It will be a good picture, if small.' He put his head on one side to admire the effect complacently; he paid no attention to Lulu. Apparently he alone did not intend to alter his attitude in the least. Of the height to which

she had attained he seemed oblivious.

Leave that alone. Carve what we did on the necklace,' said Lulu abruptly. Nothing should mar this day, she was determined. It was also refreshing to fling a challenge again. For a long minute uncle and niece looked at each other. There had been no real tussle between them since they had left the cave, and Bobo was not in train for tussling now. Not only was his body fatter, but he had let Lulu lead so definitely of late that she had gained far more influence over him than he had guessed. He found it far more difficult to oppose her than he had once done. Mock at her lightly he might, but was it worth while any longer to defy her directly? The results were always so upsetting. Bobo looked at the slab of bark and back at Lulu and scratched his chin. To yield to her whim would save so much trouble. Of what use was it to be rid of Dilda if Lulu began to make herself unpleasant? Bobo grunted. His hand groped beneath his tunic. He drew out the necklace and his carving tools with it.

'That was why I wanted you with me, to finish that necklace,' Lulu told him candidly.

'Oh!' said Bobo, gaping. It was not a pleasant surprise.

(Continued on page 310.)

## NOWHERE AND UTOPIA.

If the letters forming the word 'Nowhere' are reversed, all except the 'wh,' regarding them as a sound in themselves, they will be found to make the word 'Erewhon.' This is the name given by an author named Samuel Butler, who lived not so very long ago (being born in 1835), to a book he wrote about an imaginary country. Sir Thomas More had also used the made-up Greek word Utopia,



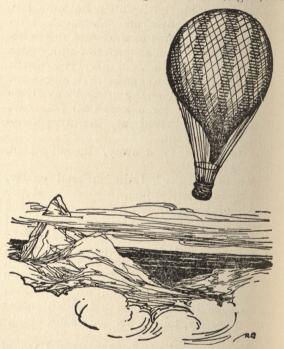
Erewhonians in Native Dress.

also meaning 'nowhere,' for the name of an

imaginary land.

Like many before him, Butler saw that some established customs and ideas of his own day were foolish. And in picturing such a place as Erewhon, he found it easier to satirise such things. Samuel Butler as a young man was out in New Zealand. He was much fascinated by an enormous range of mountains on the horizon near the sheep-farm where he lived, and he went on an expedition to explore them. This he describes accurately in the opening chapters of Erewhon, although no name is given to the country in the book. In a later book, Erewhon Revisited, Butler refers to his hero as 'Mr. Higgs,' but his name is not mentioned in the first book. It begins by an account of how his hero sailed into distant lands, one of the colonies, with the idea of purchasing land and settling down as a sheepfarmer. This land had only been opened up for settlers for eight or nine years. The coast had been explored for eight hundred miles in length, and inland for two or three hundred miles, as far as the beginning of a lofty range

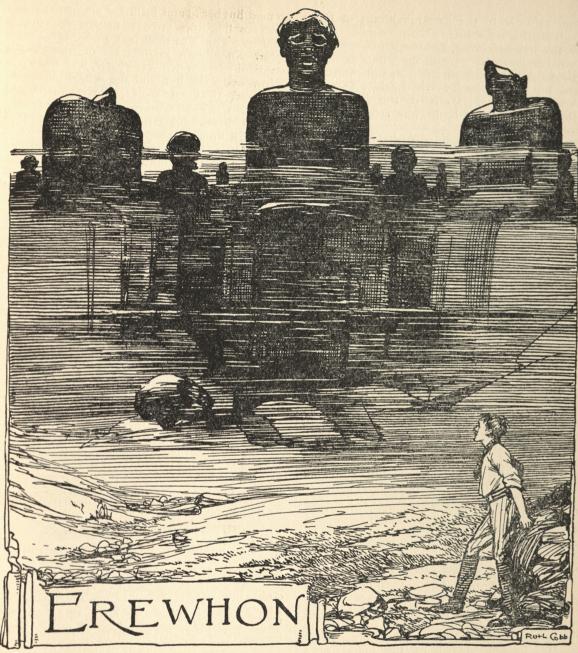
of mountains, the peaks of which were always covered by snow. These distant mountains fascinated the new colonist, as mountains in New Zealand had interested Butler himself. The sheep-farm where he worked was at the foot of the outer slopes, and wherever he went they were always in view; they dominated his thoughts. He was filled with a desire to reach the furthest peaks and the unknown land that must be beyond. Granted a few days' holiday after sheep-shearing, he set off towards the mountains without telling any one his real objective. After three weeks' journey up gorges and across mountain passes, the native servant who had come with him, tempted by the prospect of finding gold, ran



Higgs escapes from Erewhon in a Balloon.

away and left him. This man evidently had some knowledge of the land ahead, of which he was afraid and would not talk. He evidently feared to enter the inner recesses of the mountain range.

Pushing on alone, the explorer suffered many perils, and became haunted by the sound of distant music, which prevented sleep and was quite unaccounted for. Having a glimpse of distant plains, he struggled on hoping to reach them, only to find himself enshrouded



in mist. Suddenly there loomed up in front of him some gigantic figures, still and silent, but in human shape. After his first alarm was over (when he lost consciousness), he realised that he had come upon a sort of Stonehenge. Ten huge stone figures, partly covered in snow, stood in a group; their heads were hollow,

and acted as organ-pipes. The wind rushing out through their mouths made the ghostly music he had heard earlier. This was the entrance to the kingdom of Erewhon, and he heard later that at a very remote period in the people's history these statues had been put up to propitiate the gods of disease. He was

taken prisoner by the first inhabitant of the country whom he met. The people were swarthy and handsome, looking somewhat like Spaniards, and they were dressed in a similar style to Arabs in Algeria. Kept in confinement for awhile, he was then taken a long journey to the chief city of the kingdom. After being examined, he was released and

given a pension.

At first he had not been regarded favourably because he possessed a watch. In Erewhon no machinery of any kind was allowed, except in museums as curiosities. That had not always been the case. Five hundred years before, machines and inventions were being made rapidly, so much so that it was feared that machinery would become more important than Civil war took place between the machinists and anti-machinists, as they were called, and the latter won. Every complicated machine had then been broken up, and the country had gone on without such things. The watch having been given up, the newcomer was received with more favour, especially as he looked well and strong and had fair hair, all of which were considered as great signs of beauty. The Erewhons regarded any one who was ill as a great criminal, and he or she was punished accordingly.

This led to people using all sorts of devices to prevent it from being known that they were not well. It was considered very bad manners to say 'How do you do?' People saluted each other by saying, 'I hope you are good this morning,' or 'I hope you have recovered from the snappishness from which you were suffering when I last saw you.' When the people did anything which we should consider wrong-stealing, forging, or any crime-they were at once treated as if they were ill. Men who practised much as our medical men do, and who were called 'straighteners,' were immediately sent for. The straighteners would prescribe treatment which would punctiliously be carried out, such as a diet of bread and water for two or three weeks, or a severe

flogging once a week.

'Mr. Higgs' stayed in the house of a Mr. Nosnibor (Robinson backwards), who had embezzled large sums of money, although already very wealthy. Becoming all at once conscious of his misdoings, he had confessed to his family and sent for the family straightener. The prescription given was a fine to the State of double the money taken,

no food but bread and milk for six months, and a severe flogging once a month for twelve months. This was then being undergone.

Mr. Nosnibor's youngest daughter was a beautiful girl named Arowhena, and the guest fell in love with her and she with him. This they had to keep secret, for in Erewhon younger daughters were not allowed to be married first, and Arowhena had an older

sister still unmarried.

Her lover was in favour at Court. Erewhon, at the same time, was suffering from a severe drought. He prevailed upon the Queen to be allowed to ascend into the sky and persuade the gods of the air to send rain. In reality he knew nothing about balloons, but thought that by a balloon he and Arowhena would be enabled to fly from Erewhon. Under his directions, though he had promised that no machinery should be used in the process, the Queen's workmen made a balloon, and he and Arowhena, who was hidden in the car, got away without his plot being found out. The wind was in a favourable direction, and they were carried over the mountain ranges and eventually out to sea. The balloon sank to the water, and the two lovers were in the car, which was half filled with water and in great danger, when they were picked up by a passing steamer. Such is the story of Erewhon.

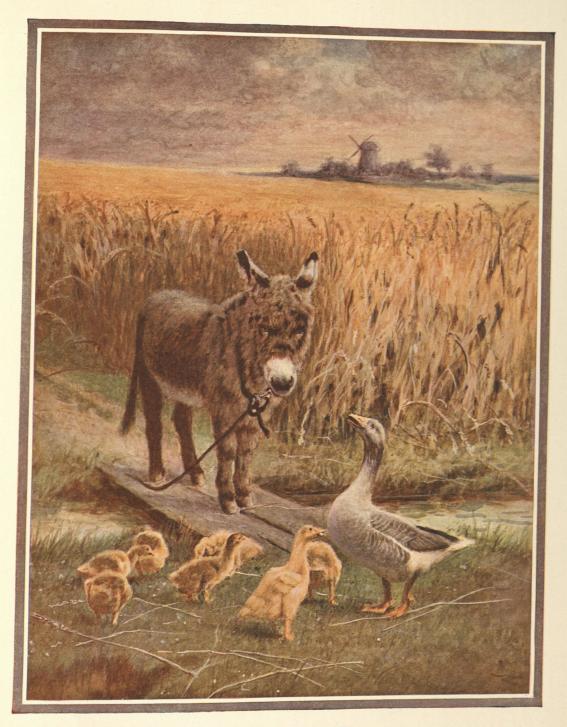
It is a modern attempt to portray an imaginary country by one who saw the folly of many things. It is an idea that has fascinated men all through the ages, and will doubtless continue to do so, and many books may yet be written dealing with such 'Lands of Desire.' RUTH COBB.

#### BULLFINCH AND LINNET.

TWO little birds—the one a bullfinch and the other a linnet—lived in a large cage along with a number of other birds. These two were great friends. The bullfinch being very tame, was often allowed to come out of the cage, and while sitting on the top of it, was generally given something nice to eat. Upon getting it he at once gave a funny little cry, whereupon his friend, the linnet inside, immediately jumped on to the topmost bar of the cage, and got a share of the dainty through the wires from the bullfinch, who apparently greatly enjoyed sharing it with him.

One day, a nest of young bullfinches was put into this cage, and the kind bullfinch at once took charge of the little birds, and fed them as carefully as their own mother could have done, through the

wires of the cage.



A DISPUTED PASSAGE.

#### SECRET TUNNEL. THE

T all happened through my Cousin Jack. I was staying with my Aunt Nellie at their old Priory House at Belweck when I had my great adventure. I call it great, because it seemed to me that I should never meet with such an affair again in all my life, and up to now I haven't. I suppose I had better tell you that Belweck stands on ground that is tunnelled almost as much as a rabbit warren. Small tunnels, large tunnels, in fact, tunnels of every description all centre round the Castle, which stood about a mile from our house. I have really no right to call it 'our,' for I was only staying there for a month. The reason for all these tunnels was that a one-time earl had been so disfigured that he was loath to go out into the open air in case any one should meet him, so he had miles and miles of tunnel dug in order to take exercise. The Castle was now in a state of ruin, and the tunnels had for the most part been blocked up by falls of earth caused by the damp.

Auntie Nellie suggested that we should go for a picnic up beside the Castle, where the country seemed most beautiful at that particular

time of the year.

The following day Jack and I set out for the Castle, each carrying a small knapsack, containing enough grub for the two of us. You see Auntie Nellie was a firm believer in food, and plenty of it. When we were out of sight of the house Jack pulled out an electric torch, and, pointing to it, said: 'We're going to explore a tunnel which I discovered some time ago. If you don't want to come, you will have to wait outside until I come out.

Now I am fourteen, and the same age as Jack, and was I likely to let him see that girls are frightened of nothing more than a tunnel? So I agreed, and he led me straight to the room where he said the entrance was. The whole place was in a state of collapse, the doors hung on single rusty hinges, and the room into which he led me was panelled with

oak, once in a most beautiful condition.

I looked round the room, expecting to see another door which would give entrance to the tunnel, but no entrance presented itself. Jack seemed to know more about it, however, for he went straight to the wall facing the door. He then began to press on the various parts of the panel until one of them seemed to swing in. It was only a small portion, and it took

Jack all his time to get his hand round on to some knob or catch or something; at any rate, to my great surprise the whole section of the panel-about six feet by three-began to open outwards with much groaning and creaking. Behind it was a blank wall, but to the right led away a passage in total darkness.

'Come on!' shouted Jack joyfully.

He held open the door, and I entered into the blackness beyond. He soon followed me with lighted torch, whilst the door slowly swung back into its original position. tunnel seemed in a more or less good state of repair, although the dust of centuries appeared to be lying on the floor. The air seemed to be very pure and fresh, though no opening was visible in the blackness above.

To be quite frank, I felt very nervous at first, but the ever-bold Jack soon dispelled We proceeded for some distance and came to some steps. At the bottom of these steps the passage led on perfectly straight, until we came to the crossing of four ways. At first we were at a loss which road to take. but we finally started off along the tunnel opposite to the one we had just left. Before we had gone many yards, however, we noticed that this tunnel was not only damp, but positively wet on the roof overhead. We then turned back, and on arriving at the crossing, undid one of the knapsacks and were soon munching sandwiches and cake. It was not a very agreeable place, but we had no other.

Suddenly Jack exclaimed, 'We shall have to hurry back now, as I think this torch-

battery is running down.'

I quickly strapped up the knapsack, and we set out to regain the open. The torch was on its last legs, so to speak, when we reached the door, and it was almost in darkness that Jack pushed against the door. We both tried, and then almost in one voice cried, 'Why, we have forgotten to undo the catch.'

Jack felt about in the now pitch darkness

for the catch.

'You have a go, Jean,' he said, after a pause of a few moments. I felt up and down the door, but in vain. There was no catch on our side of the door, and on the other side the catch was hidden from view! I went hot and cold by turns, and, worse still, I could hear Jack's breath coming in pants. Finally, one of us broke the silence by letting the torch drop.

'We're caught,' said Jack in a very subdued

voice, 'caught like rats in a trap.'

'Wait a moment,' I replied; 'what about getting out by one of the other tunnels? Surely there must be another entrance somewhere, or where is the draught coming from that is keeping this tunnel so dry and fresh? It certainly cannot be the other tunnel opposite this, for it was dripping with water.

Come on, we're going to get out of this somehow or other.'

And, suiting the words, I began to feel my way along through the passages, with Jack following close behind. I must admit that the idea about the draught was not my own, for I had read about it in some adventure book: I think it was King Solomon's Mines.

(Concluded on page 311.)



"He began to press on the various parts of the panel."



"Down scuttled Ratty."

# RATTY'S ADVENTURE.

DARELY had end-of-term examinations R caused such excitement in Pilter High School for Girls. A lady resident in the town had offered to girls in the Lower Fourth a prize in memory of a little daughter, aged thirteen, who had been a pupil in the school. The prize was payment of a whole term's fees and all extras. The winner could also choose a book or a tennis racquet.

Competition was very keen, and the Lower Fourth Form girls were the subjects of endless

discussion throughout the school.

Round the notice-board each morning before prayers, girls pushed and jostled each other to see who headed the lists in subjects already corrected and marked by the examiners. So far, Milly Goodman or Irene Rundle almost invariably were top.

The last day of the examinations had come: Recitation in the morning, and a short Botany paper in the afternoon. On this account, the excitement grew even more intense, for Irene

Rundle's botany was extremely weak.

Now, throughout the school, Milly Goodman was not a favourite, whilst everybody, from the smallest child to the Head girl, loved Irene, who was the sweetest, prettiest girl imaginable, so that of course the whole school wanted her to get the prize. Few of the girls knew or cared that Milly's parents were rich enough to pay any fees, or that Irene's widowed mother hardly knew how to make ends meet. The girls only knew that, somehow, Irene must come out top in the Botany

Poor Irene! She loved flowers passionately, but she got hopelessly muddled by their long Latin names. During the term, she had often treated botany with indifference, and consequently got into trouble. Now, she would give anything to attend those lessons again in a different mood. She realised, too late, that indifference and inattention are great mistakes, and not easily rectified. Her school friends recognised this too, so they put their heads together (at least some of them did) to consider how they could help her.

The Recitation examination was over. Recreation had been extended by twenty minutes. Groups of girls hob-nobbed together; a few played games or ran races in the school grounds. Mistresses and prefects on duty wandered about, chatting and laughing

together, quite unaware of a plot that was being hatched.

Be it said that Milly and Irene knew nothing of this plot. Milly was still in the luncheon room, recounting somewhat arrogantly her examination experiences to a few girls. Irene was playing with some of the Third Form children, among whom were her younger twin sisters.

The plotters repaired to some seats under the trees near the gymnasium. What could be done to thwart Milly and prosper Irene?

'I know!' suddenly cried Maisie Dickson, a bright-eyed, lively looking girl of thirteen. 'I'll bring my tame white rat to school. I often carry him about in my pocket. He loves it. My seat's just behind Milly's, and Irene's is right the other side of the room. Half-way through the Botany paper, when Miss Brown, or whoever invigilates, isn't looking, I'll take Ratty out of my pocket and pop him on to Milly's shoulder. She has a perfect horror of rats and mice: she will be so scared for a few minutes that all botanical terms will race out of her head. She'll lose marks on an unfinished paper, while Irene'll keep her senses, and go on to the Even if she makes mistakes she will have a chance of being equal with Milly."

'Splendid! Tophole, Maisie!

genius at ideas!'

'You'll get caught for a certainty.'

'Good for Irene, but hard nuts on Milly!' 'There will be an awful row!' were the

remarks that buzzed at her on all sides.

'If I'm a genius at ideas, I'll be a genius at clearing myself. It'll be Ratty's fault, for creeping into my pocket-not mine!" laughed Maisie. 'Anyway, we've settled to help Irene. If the plan fails, we've done our best,' murmured the girl, making warning signs, for two young mistresses were passing near them.

A few minutes later, Irene with a bevy of children came racing by. She pulled herself up to speak to her friend, Naomi Selden, one of the group.

'You ought to be studying botany instead of playing with these infants!' laughed Naomi.

'Too late now!' answered Irene woefully.

'Promise that you'll go on to the end of the paper. Don't give in, whatever happens,' said Maisie suddenly.

'Give in? Of course not!' On that point, Irene seemed quite determined.

'Just say, "I promise," ' pleaded Maisie

earnestly.

'I promise,' flung back Irene over her shoulder, as she danced away.

'Half-time!' announced Miss Brown, invigilating that afternoon in the Lower Fourth class-room. Faint sighs, rustling papers, increased writing speed, alone gave evidence that the announcement had been heard.

Miss Brown looked at the girls so earnestly occupied, walked up and down between the rows of desks, wondering how the probable

prize-winners were faring. Then she returned to her desk and sat down.

'Now or never,' decided Maisie, with palpitating heart; she plunged her hand deep into the pocket, seized Ratty's warm little body, and for a moment held him tight under her desk, fearing detection. But no! Miss Brown stooped to pick up her pencil. Maisie quickly bent forward and landed Ratty on Milly's shoulder. Down scuttled Ratty over the girl's arm, and pounced on her neatly-written paper, smudging and spoiling the drawings of flowers and leaves which illustrated some of her answers.

(Concluded on page 314.)

#### MY DIARY.

Written and Illustrated by RUTH COBB.
XII.—NINETEENTH CENTURY DIARIES.

Nold man, who died about sixty years ago, A named Henry Crabb Robinson, kept a diary through the greater part of the nineteenth century. It is one of the longest diaries on record. The original exists in thirty-five volumes, and he continued it till he was ninetyone. In fact, as time went on, diary-keeping became the chief object of his life. He knew most of the well-known people of his day. His epitaph says, 'Friend and associate of Goethe, Wordsworth, Wieland and Coleridge, Flaxman and Blake, Clarkson, Stanfield, and Charles Lamb. But there were many more-Thomas Carlyle and Mrs. Carlyle, the poet Rogers, and William Blake. He describes all his meetings with these friends, and we have very clear accounts of them in these diaries. But they are not written with the vividness of B. J. Haydon, another great diarist. There is seldom anything given that is very personal to Crabb Robinson himself, though there are good accounts of how, once or twice, he was attacked by robbers. On Nov. 13, 1820, 'In the evening, I set out on a walk, which proved an unlucky one. As I passed in the narrow part of the Strand, I entered incautiously into a crowd. I soon found myself unable to proceed, and felt that I was pressed on all sides. On a sudden I felt a hand at my fob. I instantly pressed my hands down, recollecting I had Mrs. Wordsworth's watch in my pocket. Before I could make any cry, I was thrown down (how I cannot say). I rose instantly. A fellow called out, "Sir, you struck me." I

answered, "I am sorry for it, I'm robbed, that is worse. . . ." I had lost my best umbrella. I felt my watch, but my gold chain and seals

were gone.'

A Quaker girl named Caroline Fox who was living at the same time also kept a diary. They neither of them mention one another, but they must have constantly been in the same room at public entertainments, for they describe the same events. They knew many of the same people. Caroline Fox seldom describes their appearance, but enters at length the conversations of these people. Both she and Crabb Robinson, who also travelled abroad with the poet, visited Wordsworth at his home in the Lakes.

His visit was in 1816. 'Sept. 5th. In this valley, in a fine situation, is the house of Wordsworth. We met him in the road, before the house. Our evening was spent at Wordsworth's. It was a serious gratification to behold so great and good a man as Words-

worth in the bosom of his family.'

Caroline first met the poet in London in 1842, and for once describes a personal appearance: 'He is a man of middle height, and not very striking in appearance, the lower part of the face retreating a little, his eye of a somewhat French diplomatic character, with heavy eyelids, and none of the flashing which one connects with poetic genius. He evidently loves the monologue style of conversation, but shows great candour in giving due consideration to any remarks which others may make.'

Two years later, Caroline went to stay at the Lakes. On Oct. 6th, 1844, she writes: 'Anna Maria and I paid a visit to the Wordsworths. He was in great force, and evidently enjoyed a patient audience. He wanted to know how we came from Cornwall, which naturally brought us to railroads, and a short lament over the one they mean to introduce here. He grieves that the ravens and eagles should be disturbed in their meditations.'

Caroline had one exciting adventure. She was attacked by a bull. 'March 10th, 1853. As we turned the corner of a lane, during our



walk, a man and a bull came in sight, the former crying out, "Ladies, save yourselves as you can!" the latter scudding onwards, slowly but furiously. I jumped aside on a little hedge, but thought the depth below rather too great, about nine or ten feet; but the man cried "Jump!" and I jumped. To the horror of all, the bull jumped after me. My fall stunned me, so that I knew nothing of my terrible neighbour. . . . He thought me dead, and only gazed, without any attempt to touching me, though pacing round, pawing and snorting, and thus we were for about twenty minutes. The man, a kind soul, but no hero, stood on the hedge above, charging me from time to time not to move.'

After she regained consciousness, she was afraid to rise. Finally, the bull went away at last, following some other bulls that were driven into the field. Her people laughed at her, because when released, she stayed to pick up some oranges she had dropped.

The Foxes lived at Penyerrick, Cornwall. The father was a scientific inventor, and many men of note, scientific and literary, came to visit this Quaker family. Caroline constantly went with her father to meetings, to hear about the latest discoveries. An early entry in the diary shows how, at one of these, she saw another diarist, a famous poet belonging to an earlier generation.

'Bristol, Aug. 2nd, 1836. We saw Tom Moore in all his glory, looking like a little Cupid, with a quizzing-glass in constant motion. He seemed as gay and pleasant as a lark, and it was pleasant to spend a whole evening in his immediate presence.'

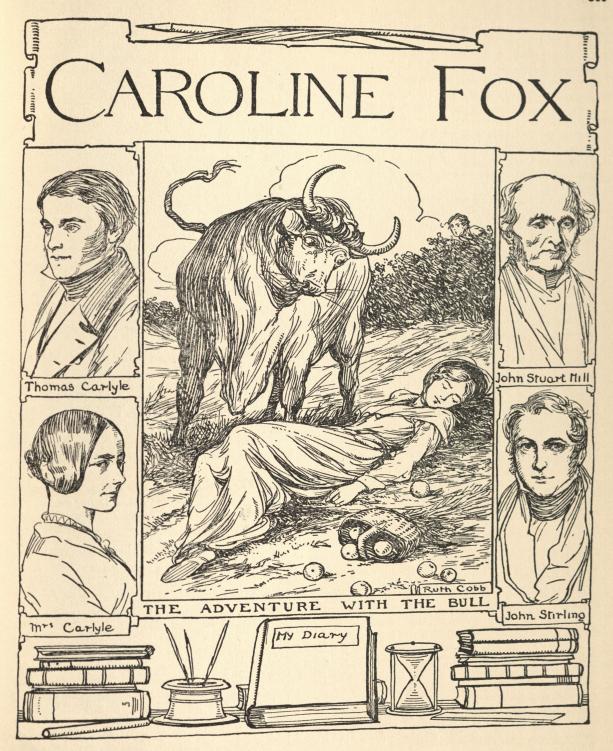
Among the visitors who came to the house were John Sterling, whose life Thomas Carlyle was to write, and John Stuart Mill, another intimate friend of his. It was through the Mills that Caroline Fox herself came to know the Carlyles. She first saw Thomas Carlyle when he was giving one of his lectures on



Henry Crabb Robinson.

'Hero Worship,' which were attracting so many well-known people in London.

Henry Crabb Robinson was also present, but he records the lecture more briefly. Caroline Fox says: 'Carlyle soon appeared, and looked as if he felt a well-dressed London audience scarcely the arena for him to figure in as a popular lecturer. He is a tall, robust-looking man; rugged simplicity and indomitable strength are in his face, and such a glow of genius in it—not always smouldering there, but flashing from his beautiful grey eyes, from



the remoteness of their deep setting, under that massive brow. . . . He began in a rather low voice, with a broad Scotch accent, but it

soon grew firmer.'

When in London she often went to see the Carlyles. While she was talking to Mrs. Carlyle, 'Carlyle wandered down to tea, looking dusky and aggrieved at having to live in such a generation, but he was very cordial to

us, notwithstanding.'

Thomas Carlyle himself kept a diary. He says of these same events: 'May 1st, 1838. Delivered yesterday at the lecture rooms, Portman Square, a lecture on "Dante." Seven more yet to come. A curious audience, a curious business. It has been mismanaged, yet it prospers better than I expected once.' Again: 'I gave my second lecture yesterday to a larger audience than ever, and with all the success, or more than was necessary for me. I had bishops and all kinds of people among my hearers.' And on another time, 'My room was considerably fuller than ever before, the bonniest and bravest of people.'

So Carlyle became happier in work which was strange to him, but which helped to make him a famous man. Usually in his diary he was working off his feelings as to his inability at times to get on with his writing. 'Twelve o'clock is at hand, and not a word down yet.' His thoughts as to future books, which were developing in his mind, he enters freely. It is only occasionally he writes accounts of more

frivolous happenings on the rare occasions when he is enticed away from his books, 'Last night at a grand ball at Ralli House, the only ball of any description I ever saw. From five to seven hundred select aristocracy, the lights, decorations, houseroom and arrangements perfect (I suppose), the whole thing worth having seen for a couple of hours. Of the many women, only a few were to be called beautiful. . . .'

By far the most interesting figure present was the old Duke of Wellington, who appeared between twelve and one, and 'slowly glided through the rooms-truly a beautiful old man. . . . His very size had hitherto deceived me. He is a shortish, slightish figure, about 5ft. 8in., of good breadth, however, and all muscle or bone. His legs I think must be the short part of him, for certainly on horseback I have always taken him to be tall. . . . He glided slowly along, slightly saluting this and that other. Clear, clean, fresh as this June evening itself, till the silver buckle of his stock vanished into the door of the next room, and I saw him no more.'

In the years to come many more diaries may come to light: diaries that are being written now, that will tell people of future generations the thoughts and the way of life of those living at this present time, in the same way as we now get to know the inner beings of the men and women of the past by what they wrote themselves about themselves.

# THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' 'The Hidden City,' 'Princess Ooma,' &c. Illustrated by E. S. FARMER. (Continued from page 299.)

CHAPTER XXXVII.

THE CHOICE. HERE is no lamp,' said Bobo, suddenly

aggrieved as he sat carving, and it began to grow dark later. He was absorbed in the necklace again by this time, and impatient of

anything that proved a hindrance.

There will be no fish to-morrow,' Brild murmured softly, for he did not want to annoy Lulu, since the tribe had given him a welcome of the type he had expected. He had even begun to look on his cousin in consequence as in some sort his protector; but he was also beginning to be afraid that if there was no more food to spare he might presently be hungry.

Zip-Zip looked as if there was much she could have said too, but her endurance was greater than Brild's. She merely gazed at everything and every one gloomily. Lulu glanced at the three of them and then at Hrump. He was making no attempt to hide his dislike of the clearing. Since the morning he had hovered on the edge of it uneasily. Would the next day find him there still? He could not be stabled under supervision in the hut as he had been in the cave. And what she herself really wanted Lulu was still by no means sure.

Of the treatment she had received so far she had no reason to complain. No member of the tribe had failed to treat her with respect

and as one set apart and to be honoured. But the freedom she had enjoyed of late was inevitably hers no longer, she was finding, and that she must perforce conform, if she shared its life, to the many customs that held the tribe together. The Elders had taken Zan under their wing, and that it was the Elders who must of necessity rule for the time being, Lulu, who laid so much stress on Zan's youth, could not deny. They had installed Zan with Ullah in Zend's hut and had cast out Churruk's family. A little to her surprise she saw that the Elders were now coming towards her in a body, talking together gravely. She could not guess what they wanted; perhaps to hear the tale of her exploits.

'It is almost night,' said the oldest Elder

solemnly.

'Yes,' Lulu agreed, still perplexed.

'You came from the night,' said the oldest woman. Before Lulu could reply she sidled nearer. She was to act as spokeswoman apparently, for her companions stood where they had halted at a short distance.

'Child, go back into the night,' said the

oldest woman abruptly. 'And take that with you.' She pointed at Hrump. 'You and it belong to the night. We think that there is something strange about you. We will keep Zan since Ullah vouches for him,' she promised hastily, as one who makes the best terms that she can; 'but go—you.'

And, at that, she stood blinking at Lulu a little timidly, while Lulu, silent for the moment, meditated. Unlooked for as was the request, it matched remarkably her inclinations. Go? Go back to the freer life for which she was already hankering? Back to the forest folk who wanted her? Back to the new magics she would make for them? The new triumphs that might well be hers? And to go thus because she was too great to remain?

'Go,' the oldest woman urged again.
'I will go,' Lulu promised regally. These people could exalt her no further. The quicker she went now, the better, that the impression she had made might endure. It but remained to make sure that her work was not undone when her back was turned.

(Concluded on page 314.)

## THE SECRET TUNNEL.

(Concluded from page 304.)

FTER going only a few yards, I nearly had A a nasty fall, for I had forgotten all about the flight of steps, but I was just able to save myself. After travelling for some time we reached the crossing, where, to our great astonishment, we saw a faint light in the distance. I suppose we had been too much wrapped up before in what we were eating to notice that tiny glimmer of light, for it was certainly no more. Quite honestly, I should have fainted or burst into tears if that light had not really been there, but it was, and, what was more, we were quickly approaching it. Then I noticed that the light was reflected by a wall, and in front of this wall was a broad hole. We stopped immediately, and only just in time to prevent ourselves walking into this sort of well. I kicked my foot about in order to kick a stone or something down this black hole. I did hit something, and we were alarmed to hear a loud splash of water! Another step and we would have been down in the water to be drowned. But we were still to be more alarmed, for the mouth of this well was at least twenty feet above us. How were we to get out of this mantrap, for such it was?

We eagerly looked up the sides of the walls for footholds by which to gain the top, but in vain, for the side of the well was as smooth and slippery as ice.

Suddenly we heard the sound of a gramophone being played in far, far distance. 'Let's shout,' I suggested, and we let out a long shout of help. Again we shouted, and to our relief a head appeared over the mouth of the well.

'Get a ladder and pull us out of here as soon as possible.' I shouted as loud as I could, for I had recognised the head and shoulders as those of Uncle Arthur.

Little remains to be told now, for within what seemed to be ages to me a ladder was procured and lowered down the well.

Both Jack and I were filthy when we reached the top, but we didn't care, for we were safe. We found out afterwards that the well was nothing more than a trap into which the crafty old earl had decoyed those who had laughed at his deformity. We were very nearly caught for good into it, but not quite, and now, as Uncle Arthur has had it filled in, no one will ever fall into it in the future.

JEAN MATTHEWS.



" We reached the top—we were safe."



" Then I go too!"

# THE DIM RED DAWN.

By MRS. HOBART HAMPDEN, Author of 'Louisa,' The Hidden City,' Princess Ooma,' &c. Illustrated by E. S. FARMER.

(Concluded from page 311.)

'MAKE care of Zan,' Lulu warned. They should not think, these worms, that they could do as they chose. 'Take care of Zan or I may come again,' she promised darkly. And, as she spoke, out of Zend's hut came Zan with Ullah following. Ullah had dressed Zan already in a skin tunic that had been Zend's. She had spent the day shaping it to fit him. Up to Lulu Zan came running, to stand looking at her as did the Elders still.

'Ullah says,' said Zan, still panting with the haste he had made, 'that you are going away.'

He had seen nothing of Lulu since the morning, for while Ullah had been at work she had kept him beside her on one pretext or another; coaxing him, petting him, lavishing on him the best she could produce. Zan had enjoyed his day undoubtedly, but yet Zan looked at Lulu with a little frown.

'Yes; I am going,' Lulu told him.

'Back to the cave?' Zan questioned. 'But I-I shall be chief,' he told himself aloud.

'Remember what I have taught you,' said Lulu, at which his frown deepened. He did not reply, however, but watched in silence as Lulu ran towards Hrump. It was not necessary to summon Zip-Zip who, on tip-toe with delight, was racing after her. Bobo watched too. Again he looked from the clay-smeared slab of bark upon the ground to the necklace, and at Brild, who had begun to collect feverishly everything he thought might be useful within his reach. Brild was convinced apparently that he and his father would be compelled to follow Lulu, but it was quite possible they would be allowed to remain; they who had no direct connection with Hrump.

'Come, Brild,' said Bobo peevishly.

swept his tools together again, and gathered them up. 'I am a fool,' said Bobo. But across the clearing he went, and Brild also, with a heavier burden than the clay, to catch up Lulu, Zip-Zip, and Hrump where the track began that led through the forest.

'Ah!' said Lulu, pleasantly. She had forgotten her uncle for the moment, but it seemed very fitting that he should follow her

thus.

'Um!' said Bobo, but he followed still. If Lulu was not aware that she needed him, he was sure of it. And to follow her had become a habit, and to break with a habit is an effort.

It was twilight now and everything was shadowy, even Hrump. The Elders searched the shadows apprehensively with their sunken

'They have gone,' said the oldest Elder. And he turned to Zan. 'Into your hut child,' he said. 'We will take great care of you lest she be angry.'

'Come, Zan,' Ullah coaxed. She took Zan's hand, but he did not move. He continued to stare intently at the shadows.

'Shall I hunt?' Zan asked, swinging round suddenly on the Elders.

'Presently,' they told him. 'When you are big.'

What shall I do?' Zan demanded.

'You shall be fed and sheltered,' said the oldest woman. 'Nothing that can hurt you shall be allowed to come near you.' And, all at once, Ullah found Zan was pulling at her, dragging her across the clearing.

Then I go too! said Zan. Into the shadows he vanished in the direction of the track, while the Elders stared after him in turn.

THE END.

# RATTY'S ADVENTURE.

(Concluded from page 307.)

H! oh! Look!—a rat!' screamed Milly, dropping her ink-full pen on the paper, completing the havoc. She turned ghastly white, and fell in a dead faint on the floor, whilst Ratty, also terrified, ran over her prostrate body towards Miss Brown, who barely retained her presence of mind.

Consternation reigned! Irene, forgetting her promise to continue her Botany paper, 'whatever happened,' rushed to a side table, seized a jug of water, and dashed it over Milly's

Whose rat is this?' cried Miss Brown above this pandemonium. 'Whoever owns it

must catch it and report herself to the Head Mistress.' Miss Brown was hurrying to Irene's assistance, when the Head Mistress appeared on the scene. The girls were breathlessly watching Maisie as she scampered after Ratty.

'There! Catch it! Quick!' shrieked first one-and then, horrors! Ratty was racing towards the Head Mistress! Actually he jumped on her foot, and contemplated a run up her leg.

'Mercy on us! A rat!' cried the Head

Mistress, calling wildly for help.

Maisie lurched forward and caught Ratty firmly before he had time to make further

explorations.

No one, especially the Head Mistress, seemed to want to mention him more often than necessary. Certain it is, that he took no further part in school life, and was thankful to

stay at home. There were explanations and apologies, and kindly deeds in the Lower Fourth, so everything ended as it should do.

As for the Botany examination—the unfinished papers were corrected, and Milly won the prize, though Irene ran her very close

Strange to say, Irene's mother received no bill for her next term's school fees. The Head Mistress was most mysterious about the omission, but anybody who knew anything at all guessed that Milly had forfeited the prize for Irene's sake, which really was the truth.

Milly somehow became after this episode almost as great a favourite as Irene. She did her best to be nice, instead of haughty and arrogant. She sometimes wondered to herself who brought about the change, and laughingly decided, 'Ratty.' E. E. CARTER.

#### THE LOST KITTEN.

OF course, there must have been a time when Stella had not wanted a kitten, but she could not remember it. It seemed to her that always she had longed for one, and always Mummy had said, 'No, dearie, we can't be bothered with a cat in the house; run along and don't worry.' But one day a funny thing happened.

She was walking home from school with her great friend Betty, when suddenly they heard a very tiny 'Me-e-ew' quite close beside them.
'Oh, Betty,' said Stella. 'Wherever can it

They were looking round when the cry came again, and this time it seemed a little closer.

'Mp-ee-eew,' it said urgently, and then they saw, perched right on the top of a high gate-post, a tiny black kitten, too frightened to try to scramble down.

At first the kitten was too scared to let Stella touch it, and drew back out of her reach, but soon it seemed to understand that she was not going to hurt it, and at last she stood on the ground with the little trembling creature in her arms.

'Put it down and see where it goes to,' Betty said. 'I expect it lives somewhere about

But no! The kitten only rubbed close against their legs and purred contentedly.

Just then an errand boy came past.

'That kitten's been hanging about all day,' he told them. 'It's a stray, that's what it is.'

'But what will happen to it, then?' asked Betty. 'I expect it'll follow you home now you've spoken

to it,' said the boy.

'Let's walk on and not take any notice of it,'

suggested Betty, 'and then if it has got a home, perhaps it will go to it.'

So with a final caress they left the kitten on the pavement and hurried on. At Betty's house they stopped and looked back.

'I expect it's—' began Stella; then she said 'oh!' very suddenly, and looked down. There, pushing against her ankle and cleaning its whiskers on her shoe, was the kitten!

'Oh, you darling!' she said. 'I do wish I could take you home, but I am sure Mother would not let me keep you. Betty, do you think your Mother would let you have it?

Betty looked doubtful. 'I don't know,' she said, but I'll see. Come along, kitty, you shall have some milk, anyway.'

She opened the gate and went in, followed by the kitten. Stella said good-bye and walked sadly down the road towards her home.

'I would love it,' she thought wistfully; 'the dear little thing.'

She walked slowly up the path and opened the door. As she did so, there was a scuffle behind her, and a small black thing shot past and walked proudly into the hall!

'Kitty!' gasped Stella. 'Oh, kitty, however did you get here?'

As she spoke, her mother came out of the dining-room. 'You're late, dear,' she said. Why, what's this? Where did the kitten come from?'

Stella told her the tale of the rescue, and how she thought the kitten had gone home with Betty. 'But oh! Mother,' she said, 'it must have wanted to stay with me.'



"A small black thing walked proudly into the hall."

'Well, it ought to be lucky, anyhow,' laughed her mother, 'a little black thing like that. Come here, puss, and let me look at you.'

Almost as if it knew what she said, the kitten at that moment arose, walked solemnly towards her with tail erect and beseeching, amber eyes raised to her face, and opened a small pink mouth.

'Me-eee-eo-ow,' it said, and rubbed itself confidingly against her foot.

'Why, bless its little heart, it's hungry,' said Mother. 'Take it into the kitchen, Stella, and give it some milk. And what about that old basket in the shed for it to sleep in?'

For one breathless moment Stella thought she had not heard aright.

'M—mother,' she gasped, 'd—do you mean it—it's to stay?'

Her mother laughed. 'Well, it's a nice little thing, and clean too, although it's so thin,' she said. 'But if we keep it, you must promise to look after it, dearie.'

'Oh, Mother darling, of course I will,' cried Stella. 'Oh, thank you—thank you, Mother. My very own little kitty!'

And the kitten blinked sleepily at them from the hall mat, and washed its already clean face with a small black paw.

# 'THIS LITTLE WORLD.'

SOME PORTRAITS OF GREAT BRITAIN.

Drawn by J. A. SYMINGTON.

II.—YORKSHIRE: THE WEST RIDING.

(Concluded from page 296.)

HERE are many other interesting, wonderful, and lovely places in the West Riding, but we have no more space left, even for a brief mention. The little places often tell you more of the history of mankind in England than their great successors or rivals. LEEDS and Sheffield, for instance, are too large a subject to be included here. And there are plenty of other places, like Wakefield, Selby, Rotherham, Ripon, Saltaire, which are all part of the history of Yorkshire and of England. With these, perhaps, we may be able to deal in a later volume of *Chatterbox*. The map on page 221 shows you the chief names associated with them, but there are many more which should be recorded, if space allowed, for Yorkshire is a champion county, not only at cricket.

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