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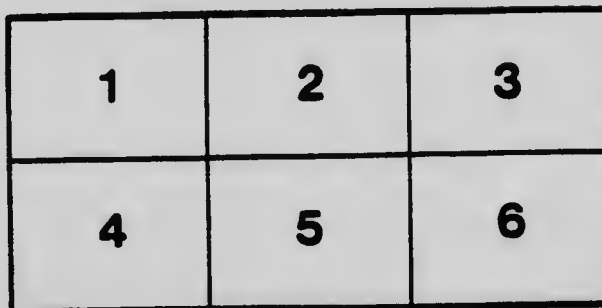
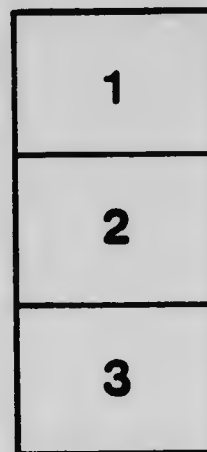
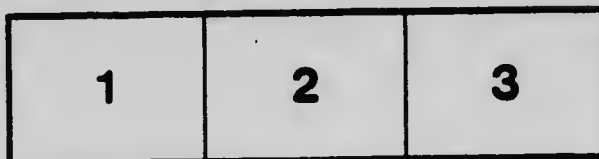
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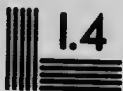
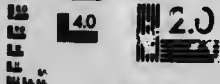
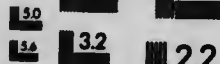
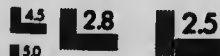
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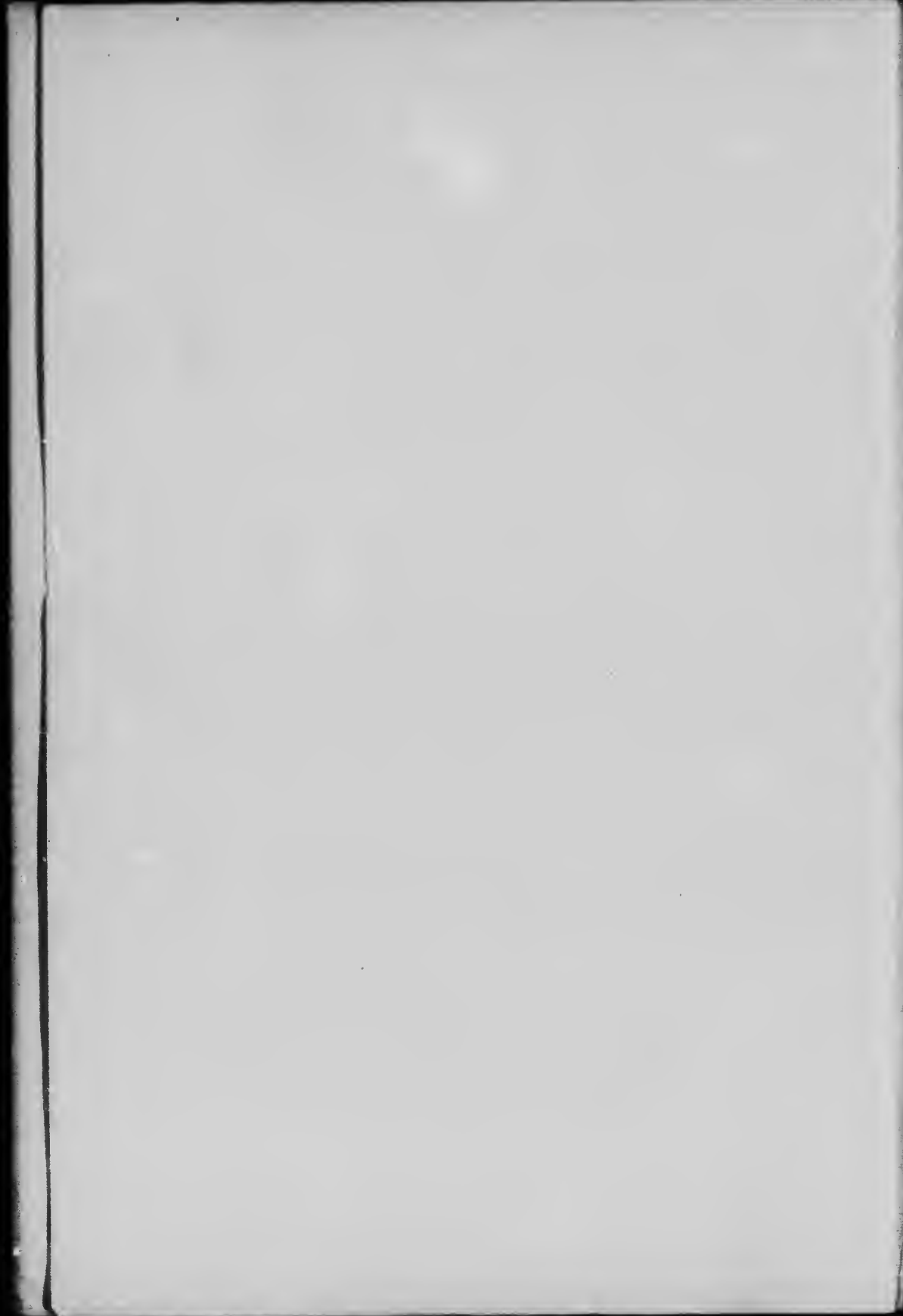
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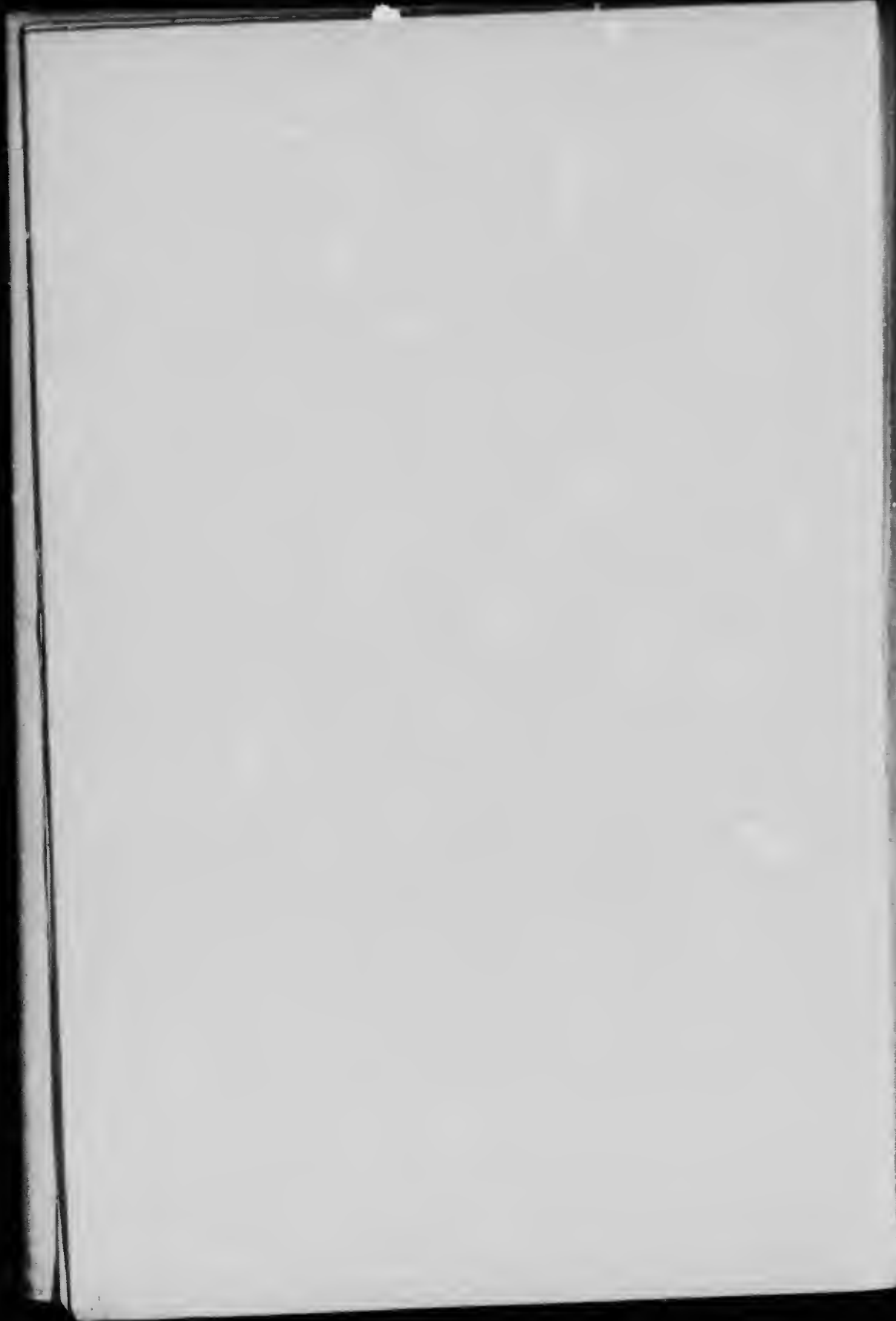
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ADVENTURES IN  
PONDLAND . . .



# ADVENTURES IN PONDLAND

By **FRANK STEVENS**

Author of "Adventures in Hiveland," "Bye-  
Paths in Nature," etc.      ♣      ♣      ♣

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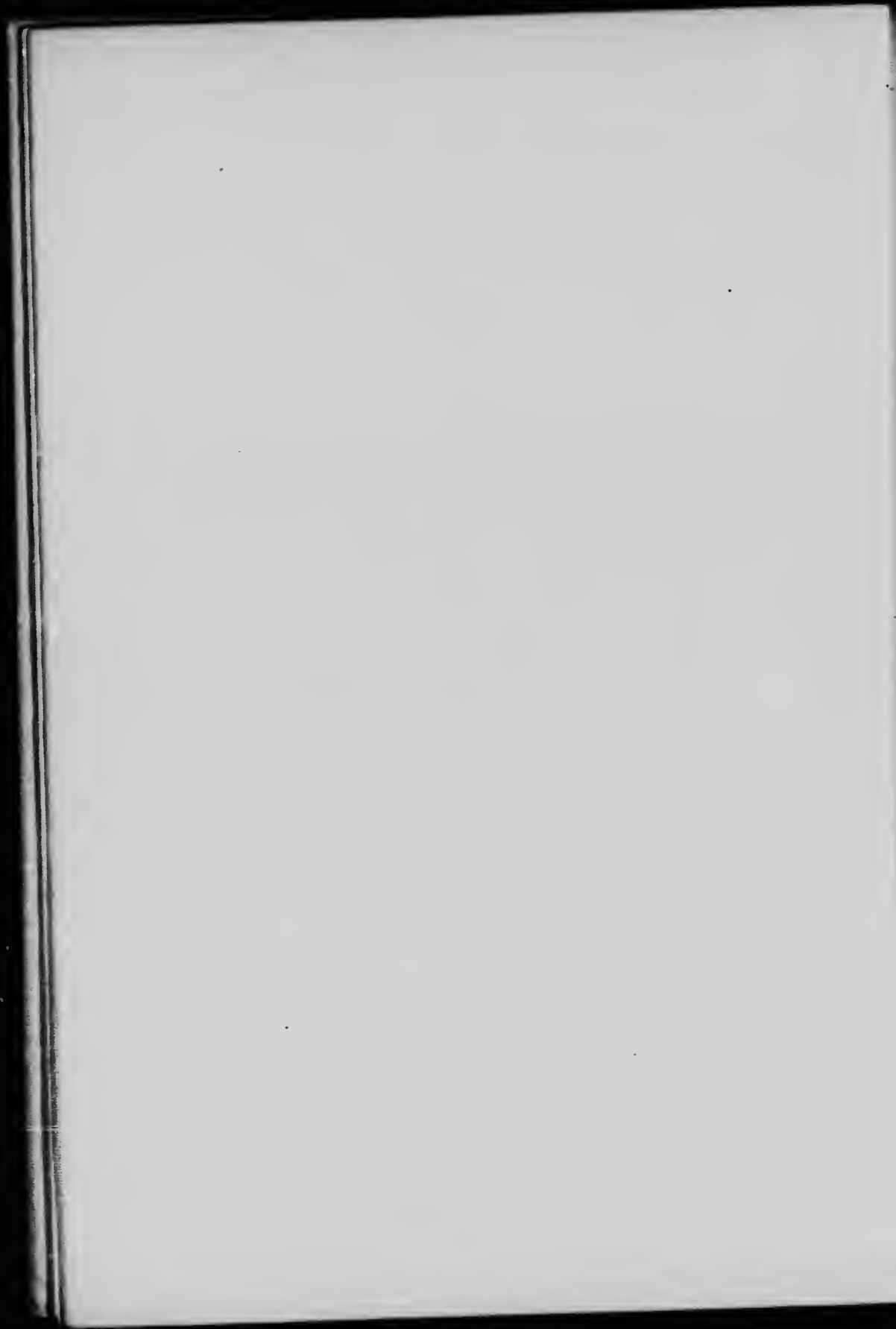
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# ADVENTURES IN PONDLAND

## CHAPTER I

### LEMNA, QUEEN OF THE POND

JACKIE and Vi were in high spirits, for Uncle Jack had come to stay with them, and Uncle Jack was a prime favourite with both.

This was not without reason, for he was devoted to them, as they were to him. True, Jackie's father often shook his head solemnly, and remarked that Uncle Jack would never set the Thames on fire; but then, Uncle Jack never desired to do so. He only asked to live his life quietly, surrounded by children and animals, both of which he loved dearly.

Every year it was his habit to come down and stay in the country for a few days—days that were all too short for his little godson Jackie, who took possession of his uncle, and went on long excursions with him, returning tired and muddy, but laden with treasures.

Hitherto these rambles had been discouraged by Jackie's mother, as well as by Miss Forman, the governess, who very naturally disliked any form of exercise for her charges which resulted in soiled hands and torn clothes. Now, however, as Jackie was growing up, and even school had been hinted at, the opposition was in

some measure withdrawn. Jackie's father was glad to see the growing love of Nature in his son, and allowed him a certain degree of freedom, always on condition that his lessons were not in any way interfered with.

Jackie's sister, Vi, was an even more ardent student of Nature. To be sternly forbidden a share in Jackie's rambles was to her a great trial. Still, Uncle Jack had a winning way with him, and often took her for short walks in the garden, or into the woods, and there opened out to her his stores of animal learning; or, picking flowers, told her wonderful tales of their life, and of the creatures who sought them.

At night, when the children were in bed, Uncle Jack used to go to their room and tell stories. These were always charming, for during his wanderings he had visited many foreign lands, and could talk of leopards and tigers and elephants and crocodiles, of pythons and cobras, and such terrible creatures. Jackie listened in open-eyed wonder and delight, while Vi, white with fear, crouched down in her bed.

Then, with a laugh, Uncle Jack would suddenly turn from these savage beasts, and tell of tailor birds and humming birds, of gorgeous butterflies and monkeys, all of which pleased Vi far more than did the terrible tales of the jungle lords. Jackie was a little relieved, too, though he dared not admit the fact. Snake stories late at night are apt to cause dreams of a distressing nature, and often after the light was put out he had felt a certain uneasiness as to whether or no a puff adder reposed beside him on his pillow, ready to strike if he moved.

"I say, Jackie," said his uncle, one night, "did you ever watch the bees?"

Both children burst into peals of laughter.

"Why do you ask, Uncle Jack?" his little nephew inquired. "We know *all* about them."

"We watched them all last summer," added Vi, breathless with excitement; "and if poor Nameless hadn't died, we should have learned lots about other things, shouldn't we, Jackie?"

"But who was Nameless?" asked Uncle Jack.

Jackie and Vi paused, remembering their secret. They had told no one of the little Elf-man who had introduced them into the very presence of the Queen Bee herself.

"Promise you won't tell," said Jackie, gravely; and Uncle Jack promised.

"Well, then," continued his nephew, "Nameless was a prince who, because he was cruel to animals, was changed into an Elf as a punishment. He learned all about them, and for hundreds and hundreds of years he went about looking for some one to teach. At last he found us, and took us into the hive, and was awfully jolly to us; and then, when we got sorry for him, he went and died, and we buried him."

"Yes," broke in Vi, anxious to tell her share of the story. "I'll show you his grave, and the graves of the Queens, and Don Drone, and Baron Buzz, if you'll come with me to-morrow. We buried them all, didn't we, Jackie?—and I wrote the tombstones."

Uncle Jack smiled. He thought his small relatives had been playing some childish game until the imaginary characters in it had become real to them.

"Very well," he replied, "I'll come to-morrow; and then, after we have seen them, we'll go for a walk down to the pond."

Two pairs of glistening eyes were turned upon him. The pond was a most delightful spot. Both children loved it, for there was an element of wet and mud which made it doubly pleasant.

"And now good-night, little ones," said Uncle Jack. "I must go downstairs, or I shall be scolded by your mother for keeping you both awake."

He kissed them tenderly. Vi put her arms round his neck, but Jackie was getting too manly for such endearments.

"You won't forget the pond, will you?" he cried, as his uncle left the room.

As Uncle Jack went downstairs, Miss Forman entered and turned off the gas, and the children were alone.

"What a lark!" said Jackie, softly. "We shall have such a time down at the pond. There may be heaps and heaps of tadpoles."

Vi gave a qualified approval.

"Nasty little slimy things!" she said. "But there are lovely flowers growing there sometimes, and yellow water-lilies. I'll get Uncle Jack to pick me some. And—oh, Jackie!—we might catch a few baby frogs!"

"Well," said Jackie, "I don't see a bit why you should call the tadpoles names. After all, they grow into frogs, don't they?"

"I hadn't thought of that," said Vi.

Jackie laughed. He was proud of his superior information on the subject.

"Of course they do," he replied. "Charles, the gardener, told me so the other day, when I went down there with him; and he ought to know—he's lived here all his life."

"But why do they grow into frogs?" persisted Vi.

"I don't know," replied her brother. "But what else could they grow into?"

This was too deep a question for Vi.

"Anyhow, it does seem funny, doesn't it?" she said. "I'll ask Uncle Jack to-morrow."

The door opened suddenly, and Uncle Jack entered in a great hurry.

"Good-bye, chicks," he cried. "I have to go away at once to London, and I shan't be able to see you

again for a long time, as I'm going to America on business."

"Oh, I am so sorry!" Vi exclaimed, with tears in her eyes. "Must you really go, Uncle Jack?"



"A PARROT, PERHAPS."

"Yes, dearie," he replied, "I must. But I'll bring you some wonderful birds when I come home—a parrot, perhaps."

"That will be jolly!" cried his nephew. "And, Uncle Jack, won't you bring me a python, or an

alligator?" he continued. "An alligator would be a very nice pet, I think."

Uncle Jack laughed.

"It would, wouldn't it? But what about Miss Forman?"

"She'd like it," said Jack. "She's awfully fond of pets—except white mice," he added, remembering certain cherished rodents he had once acquired in the village, which had escaped and sorely tried the nerves of his mother and governess.

"Well, good-bye," said Uncle Jack, once more, kissing his nephew and niece, and slipping, as he did so, a fair round coin into each tiny fist, which quietly closed upon it. In a moment he was gone, and all was darkness again.

"What's yours?" asked Jackie, when they were alone.

"Half a crown. What's yours?"

"Half a crown, too," responded Jackie. "What are you going to do with yours?"

"I don't know," said Vi. "But, Jackie, aren't you sorry he's gone? We shan't have any fun at the pond."

"Beastly shame!" returned her brother. "Just as we were going to have a good time. It's just like our luck; we always get put off. Why, even Nameless went and died, just when we were enjoying ourselves at the hive."

"Poor Nameless!" sighed Vi. "I wish he'd come back and take us to the pond. I'm sure he'd tell us all about it."

"But he can't," said Jackie, "and there's an end of it."

"Not at all," said a gentle voice from the bedside.

Jackie and Vi looked up eagerly. A bright cloud seemed to stand between them, which gradually began to take shape, until a fairy stood before them. Her hair

was interwoven with delicate green weeds ; upon her head was a coronet of white water crowfoot flowers with delicate yellow centres ; about her was a bright green mantle of duckweed, which fell in clustering folds at her feet.

"Who are you ?" asked Jackie, rubbing his eyes, "and how did you come here ?"

"I can go anywhere," said the fairy, laughing. "I heard you talk of Nameless, the little Elf who often used to come to my palace in the Water Garden. He told me of the two mortal children who used to love him, and bade me, for his sake, show you kindness. From this day you have the freedom of my kingdom, for I am Lemna, Queen of the pond."

"Oh !" said Vi, deeply impressed. "How lovely to be a queen ! But you are much nicer to look at than the Queen Bees."

"People don't always admire my realm," said Lemna, smiling. "My delicate palaces are often destroyed, and my subjects slain. They say that my kingdom is unhealthy. Perhaps it may be, but it is a very useful domain."

"I say !" cried Jackie, "can you show it to us, as Nameless did the hive ? I wish you would."

"Oh, do !" echoed Vi. "It would be so nice, and I should love to see it."

"You shall," replied Lemna. "Pondland is open to you, and you may descend into the depths of the waters unharmed. You shall be pond children, and I will protect you, as it is inhabited by savage creatures who would think nothing of attacking you."

Vi shuddered ; she didn't like the idea of going among fierce animals. But Jackie was delighted ; for him a spice of adventure was very necessary to perfect enjoyment.

"Children," said Lemna, "you are free to come and



go, and I will give orders to the guardian of the pond to admit you."

"And who is he? Where does he live?" questioned Jackie, excitedly. "How shall we know him?"

"Gently, Jackie," said Lemna. "The guardian of the pond is Natterjack, the toad. He lives on the bank, and will tell you what to do. You have only to call him by name and he will come. Farewell."

Her figure began to fade from view, until it became a luminous cloud which gradually dispersed, and all was dark once more.

"I say, Vi," cried Jackie, "this is luck, isn't it? We'll go to-morrow."

"I wonder if they will let us," asked Vi, with some concern.

"Of course they will," he retorted. "What's the name of the toad?" he asked, sleepily.

"Natterjack," replied Vi. "Don't forget it, or we shan't be able to go in."

"All . . . right," grunted Jackie, as he dozed off to sleep. "Good-night, Vi."

"Good-night, Jackie;" and soon there was no sound in the room but the soft, regular breathing of the two children.

## CHAPTER II

### MR. NATTERJACK

LESSONS were over, and Miss Forman had departed into the town to execute various commissions, so Jackie and Vi were alone in the garden. They had made themselves comfortable in the summer-house, for it was as yet too cold to enjoy the welcome shade of their beloved cedar tree. Jackie, by dint of much entreaty, had secured a large slice of cake, and was dividing it with Vi, for the children's rule was "share and share alike," at least as far as any unexpected windfalls of cake and sweets were concerned.

"I say, Vi," said Jackie, "that was funny last night, wasn't it?"

This was rather a general observation, but Vi instantly guessed his meaning.

"About the fairy, Lemna?" she asked.

Jackie's mouth was full, so he nodded in the affirmative, and hastily swallowed his cake.

"I wonder if she meant it," he continued, in his vague yet expressive way.

"Meant what?" asked his sister, finishing a piece of candied peel which had adorned the top of the cake, and was reserved till the very last as a special delicacy.

"Why, about the toad—what's his name?" explained Jackie. "'Cos it might only have been a dream, like Alice in Wonderland."

"Oh, I hope not," said Vi, and her face clouded.

"It would be horrid to find out that she didn't mean what she said."

"We'd better go and see, anyway," suggested Jackie. "There's no harm in trying, is there? After all, if this Mister—bother his name, I've forgotten it!—isn't there, we can look for tadpoles."

Vi was not quite pleased; tadpoles had no great fascination for her.

"Yes, Jackie," she said, doubtfully, "we might get some of the funny little black wriggly things. I'll ask cook for a jam-pot, to bring them home in."

"Yes, you'd better," replied her brother, artfully. "She was awfully cross with me yesterday, about that saucepan."

Jackie had been trying experiments in the art of toffee making, a branch of confectionery which cook stoutly discouraged.

"All right," said Vi. "I'll see the cook, and you can get Miss Forman to let you have your butterfly net to catch the tadpoles in: only we must not tell her where we are going, or she'll say 'No.'"

Thus the plot was hatched. At lunch the children were models of goodness—as, indeed, they always were when any deep-laid scheme was under consideration. Vi slipped down to the kitchen afterwards and secured the coveted jam-pot, which she carefully concealed in the woodshed, lest it should betray her. Meanwhile, Jackie had coaxed Miss Forman to allow him to have his butterfly net, to play with, as he innocently remarked. Both he and Vi submitted to the ordeal of being "made tidy" with great good-nature, and then, with full instructions as to what they were not to do and where they were not to go, rushed out of doors and well out of earshot of the house, pausing on their way for the all-important jam-pot, which was carefully concealed in the folds of Jackie's net.

The pond was not far away. It lay behind a clump of trees, in a little hollow—a really messy, nasty, green, slimy spot, bordered by rank sedges and reeds, and covered with a vivid green mantle of duckweed. Aquatic plants thrust their heads out of its still waters; here and there a cluster of mare's-tails, whose short, rasping leaves had often resisted Jackie's attempts to pluck them, which resulted in sticking-plaster for his fingers.



HERE AND THERE A CLUSTER OF MARE'S-TAILS.

In one corner the damp, marshy earth had been trodden by the cows who had come to drink, leaving the cloven imprint of their feet. It was a spot breathing the spirit of Nature, which had become water-logged, and preferred to remain so.

"I say, Jackie," said Vi, anxiously—she was a little uneasy about her shoes—"shan't we get our feet wet?"

"Well, what if we do? We can change when we get home," her brother replied, with a scornful laugh.

"Yes, but what will Miss Forman say?" asked Vi.

"I don't care. She can't eat us," replied the valiant Jackie.

A low, long-drawn croak interrupted their discussion. It was not the quick, short, jerky voice of a frog.

"Hullo!" said Jackie. "What's that?"

There was a vigorous rustling in the rank weeds beside them, followed by the same weird long "C-R-O-O-A-A-K."

Vi clung to Jackie. It was an uncanny sound, and she did not altogether like frogs; and this sounded such a funny kind of frog. The rustling in the rushes continued most actively: evidently something was coming in their direction. Jackie suddenly had an idea.

"I wonder," he said, breathlessly—"I wonder, Vi, if this is the toad—Oh! what was his name? Think, Vi, quick, or he may go away again."

Vi thought for a moment, as the rustling came nearer and nearer.

"I know," she cried, joyfully: "Mr. Natterjack."

As she said the word the rushes parted, and a large, warty head peered out at them. But it was not the head of an ordinary toad—oh, no!—though it was shaped like one. It was a beautiful, yellowish olive-brown-coloured head, dull in places, yet catching the light wonderfully. The warts were almost red in hue, and from the tip of his nose was a bright yellow streak, which ran all the way down his crinkled, warty back. But what struck both the children most of all were his lustrous eyes, gleaming and black, with golden rims.

Even Jackie was a little startled at this strange animal, which continued to gaze at them solemnly. And yet—could it be?—there was a lurking look of good nature in his eye, despite his repulsive appearance at first sight.

"It must be Mr. Natterjack," whispered Vi.

The toad stepped briskly out of the rushes, and raised

himself upon his four legs in a most comical manner. Then, in a thick, jolly voice he replied :

" I am Mr. Natterjack (*Bufo calamita*). And you are Jackie and Vi, aren't you ? "

" Ye-e-es," stammered Jackie, " we are."

" Of course you are," replied Mr. Natterjack. " I've known you for a long time. Nameless used to speak of you. He was a friend of mine, too."

" Oh ! " exclaimed Vi, " did you know him ? "

" Haven't I just told you I did ? " repeated Mr. Natterjack, as he slowly sank on to the ground again.

" Please," said Vi, " the fairy Lemna told us to come here and to ask for you."

" I know she did," replied the toad, " and you are to go into her palace." He eyed Jackie's net and the jam-pot suspiciously. " What's that thing for ? " he said sharply, pointing to the net.

" To catch tadpoles in," said Jackie, confidently, ready, as usual, with an answer.

Mr. Natterjack's face became very wrinkled, and his throat worked vigorously for a moment. Then he again stood on his toes and began to swell. Vi was decidedly frightened. At each puff his body grew bigger and bigger, and his skin seemed strained almost to bursting point.

" Oh, dear ! I'm afraid he's not well," said Vi. " Are you ill, Mr. Natterjack ? " And she knelt beside her newly-found friend.

His bright eyes turned to her for a moment, and his body slowly resumed its normal size.

" No," said he, crossly ; " only you might have a little more consideration for my feelings than to come here and tell me you are going to catch tadpoles. I was a tadpole myself, once."

" Were you ? " said Jackie. " Do tell us what it was

like. Was it nice to be able to wriggle about in the water ? ”

“ Put those things down,” said Mr. Natterjack. “ I can’t feel easy while you carry them about. No one shall touch them, I promise you.”

Jackie did as he was told, and laid aside the offending net and jam-pot.

“ Sit down,” said Natterjack, “ and don’t be afraid of me. I’m not going to hurt you.”

Jackie and Vi sat down obediently.

“ Now, look here,” resumed their friend ; “ I want you to listen to me for awhile, and pay attention, for it is only through me that you can get into the palace of the fairy Lemna. I want you to promise me that you will never hurt a toad when you see one, but be kind to it.”

Both children nodded.

“ Yes, we will, Mr. Natterjack ; we promise.”

The toad again raised himself upon his toes—this was his way of bowing.

“ Very well,” he said, “ I assure you that you will find us a great deal more pleasant than people think.” Vi was about to say something kind, but he waved her aside with his paw. “ Yes, I know what people say about us,” he remarked. “ They say that we are disgusting creatures, and that the witches used us for their evil ceremonies. I know ! Also that we are poisonous and spit forth a venomous fluid, and that there is death in our glance. Let me tell you that these things are false from beginning to end. We are really most obliging creatures, and always ready to please you, if you will only give us a chance.”

“ Oh ! ” said Vi, “ papa does give toads a chance. He’s got two in the greenhouse, and we mustn’t touch them.”

Mr. Natterjack laughed.

"He means well, I daresay," he replied; "but why does he keep them there?"

"I know," said Jackie. "It's to eat the insects: at least, that's what he said."

"They're all alike," croaked their friend. "They want us to eat their insects, but how are we going to do it? That's what I want to know. How are they to get earthworms, or insects either, in your father's greenhouse?"

"Why not?" said Jackie. "There are heaps and heaps on the plants."

"Of course there are," said Mr. Natterjack. "But how can the poor toads get at them? They can't dig in the floor of the greenhouse for worms, because it is covered with nasty, hard tiles; and the plants are stuck on big stages, high above their heads. Do you expect toads to fly, like birds, to eat the insects that feed on the plants?"

"No," said Vi, doubtfully; "but don't they get anything?"

Mr. Natterjack shook his head.

"Very little, Vi, very little," he replied. "They are almost starving there, because your father hasn't thought sufficiently about them. Tell him that it is just as necessary for him to feed his toads as it is to water his plants, unless, of course, he puts the plants where the toads can reach them."

Jackie nodded his head triumphantly.

"I say, Vi," he cried, "we'll tell father about that. Perhaps he'll be pleased."

"I know the two toads will be," said Mr. Natterjack, drily. "Excuse me for a moment. I see a particularly fine fly, which looks as if it would suit me admirably."

He rose very briskly from the ground, and silently, yet quickly, ran to a clump of grass, where an early fly



was sunning herself. The children watched him with great interest.

"Look," said Jackie. "How quickly he runs. He's not a bit like the toads in the greenhouse. They are so slow."

"Hush!" said Vi. "You may disturb the fly."

They gazed breathlessly, and saw that Mr. Natterjack was stalking his game, his beautiful eyes glistening with pleasure. For a moment the fly rose and buzzed lazily about the clump of grass, and the toad huntsman followed each movement with intense interest. Then he advanced with short, brisk steps; the children could see his throat rising and falling quickly in his excitement.

"Look at his toes," said Jackie. "See how eager he is."

Jackie was right. Mr. Natterjack was waiting, like a cat, to make the final spring, and his toes were twitching with the suppressed excitement of the moment. Then suddenly, he made a dart.

"He's lost it!" cried Vi. "It's gone."

"Duffer!" exclaimed Jackie, scornfully.

"Don't be too sure," said Mr. Natterjack. "It's gone, indeed, but not far away, for it is just now going into my crop." He shut his eyes with an air of great contentment, and gave a gulp. "That's right," he said. "A very nice fly indeed—delicious."

"But how did you catch it?" asked Jackie. "I didn't see you with it in your mouth. You never went near it."

"Why should I?" replied Mr. Natterjack. "Do you suppose I catch things with my mouth? That would be a silly thing to do."

"Then how is it done?" demanded Vi.

Mr. Natterjack settled down again before them, and scuffed out a little hollow for himself in the ground, which was his way of making himself at home.

"Well, you see," he began, "we toads—and frogs, too, for a matter of that—catch our food with our tongues, when we are able to do it at all."

"But how?" said Jackie. "I can't catch things with my tongue."

"Can't you, indeed?" replied Mr. Natterjack. "What good is it, then?"

"I don't know," replied Jackie, shaking his head, "unless it's for the doctor to look at, after you've been at a Christmas party."

Mr. Natterjack put his head on one side.

"Well, you see, my tongue is long, and folded up in my mouth, and I've only got to shoot it out at the flies, and they stick to it."

He gave a gape and showed them his long tongue, neatly folded back and glistening with a sticky fluid.

"Oh!" cried Vi, delighted, "Mr. Natterjack is a 'catch 'em alive eh' man. Don't you see, Jackie, the flies stick to his tongue just as they do to a fly-paper?"

Mr. Natterjack was much interested.

"Indeed?" he said. "I had no idea that any one else had the same notion. But," he added, proudly, "I can use my mouth as well, and I do when I eat worms."

"Ugh!" ejaculated Vi. "Nasty things!"

"Not at all," replied their companion. "They are very refreshing, I assure you." He scratched vigorously at the ground and waited awhile. "A worm will come up in a minute," he continued. "I'll show you how to catch and eat him."

Presently a red, pointed head poked itself out of the hole and curled about in an aimless manner. In a moment Mr. Natterjack was all attention: once more he was a huntsman stalking his prey. He waited awhile, and then, with a dart, seized the wriggling head of the worm and steadily pulled it out of its burrow—no easy task, as it was writhing about and causing him no

small discomfort. Then he raised one paw and began to cram and stuff it into his mouth. It was decidedly a grotesque performance, for Mr. Natterjack was profoundly serious, and the worm was both large and lively. Jackie laughed heartily, but Vi was disgusted.

"How horrid!" she said, "and how greedy!"

Mr. Natterjack raised a paw, as if to request them not to disturb him in his serious occupation. Bit by bit the worm was crammed into his capacious mouth, which closed tightly. Then he began to gulp, as if trying to swallow his meal. This seemed a lengthy process, for the worm was still alive, and squirmed inside his mouth. A look of intense disappointment and disgust overspread Mr. Natterjack's features. He opened his mouth, and the worm fell wriggling upon the ground.

"It's too big," he gasped, overpowered by his recent exertions. "However, I will try again."

"No, please don't, on my account," entreated Vi.

"Then I will on my own," replied Mr. Natterjack. "It's too good a worm to escape;" and once more he began to stuff it into his mouth with his paws, first one, and then the other, at the same time swallowing as hard as he could. At last he shut his eyes with an expression of rapture and gave a big sigh. "Very good indeed, my friends," he said. "Quite the most tender spring worm I've eaten for a long time."

"I'm awfully glad you liked it," said Jackie, politely. "It is disappointing when you can't manage to eat a big slice of cake, I know, 'cos you always regret it next day, when you're hungry, and there's nothing but stupid old bread and butter and milk."

"I daresay," said Mr. Natterjack. "Very likely you're right."

"But, Mr. Natterjack," said Vi, "how can you run about as you do? Our toads don't move half so quickly; they just crawl."

Mr. Natterjack puffed himself out proudly.

"Well, you see," he replied, "they are only the common kind—the Vulgar Toad (*Bufo vulgaris*). We are very superior persons—very uncommon. Those dull, vulgar fellows have no fun at all; but we Natterjacks live together in little clubs, and go for long walks over the country, and see the world; and then, when winter comes, we make a snug nest in the moss, and all go to sleep together. When spring arrives, we come down to the water to enjoy ourselves and bathe; and in the evening we have beautiful concerts, and sing all night long. But we don't begin our bathing season till after the common frogs have finished theirs. They are always first, and it is very crowded here while they are about."

It was now getting late, and Vi remembered Miss Forman's orders.

"We'd better go," said she, "or else we'll get into trouble."

"Well, you know," said Mr. Natterjack, "I prefer the evening myself. There are more flies then—and worms," he added, with a greedy leer. "But do come again to-morrow, for Lemna, Queen of the pond, expects you. I will not fail to tell her you have been to-day. And, remember," he added, warningly, "no more nets and jam-pots to catch and imprison tadpoles."

## CHAPTER III

### INTO THE POND

JACKIE and Vi were full of excitement regarding the unseen wonders of Lemna's kingdom. It was, however, impossible to start pondwards until after their luncheon—or, rather, early dinner—and so, lessons being over, they went into the garden.

Suddenly Jackie halted, speechless with an idea.

"I say!" he exclaimed after a moment, "we've forgotten all about the toads in the greenhouse. Let's go and have a look at them."

Vi was delighted. This would, at all events, be almost as well as to see Mr. Natterjack. With Jackie, to say a thing was to take action with as little delay as possible; so, grabbing Vi by the hand, he ran off to the greenhouse, dragging her with him, taking various short cuts across borders and flower-beds, and leaving undeniable traces upon Vi's lighter and more dainty costume. For himself it mattered little, but Vi was anything but content with her appearance when they reached their destination.

"Don't be so rough, Jackie," she complained. "You've made me tear my frock, and I shall get into awful trouble."

"Bother your frock!" retorted Jackie, bluntly. "I want to see the toads."

Vi meekly submitted. After all, Sarah, the maid,

could, doubtless be coaxed into mending her frock. Luckily, the key was in the door of the greenhouse, and they were able to get inside without any difficulty.

Jackie looked hurriedly for the insect-devouring toads—underneath the high, white stages, and among the pots; but they were not to be seen. At last he heard a dismal croak from behind a watering-can in one corner, and there discovered one of them, sitting with admirable patience, his toes turned inwards, and his yellow throat slowly rising and falling as he breathed.

"Here's one!" he shouted, and crouched to look at its dry, dusty body.

Vi bent over and joined in the examination.

"He's not half so jolly as Mr. Natterjack," said she. "There are no nice yellow markings down his back."

"And no red warts," added Jackie, who had been much impressed on the previous day by these peculiar adornments in his friend.

"Of course, Mr. Natterjack was right," said Vi, looking anxiously around. "How can the poor things get anything to eat here? They can't climb up and help themselves, or even dig for worms."

"It's a beastly shame!" exclaimed Jackie, wrathfully. "I'll tell you what I'll do. I'll get this fellow a worm at once."

Was it fancy, or not? The beautiful yellow eye of the toad seemed to glisten with pleasure. Yes, and what was stranger still, another brown, wrinkled head appeared from beneath a piece of sacking.

"I believe they can understand us," said Vi.

"Of course we can," said the first toad. "We know all about you—that you are under the protection of the Fairy Lemna. Please get us something to eat. We are half starved here."

Jackie, who had been busily grubbing at one of the pots, returned with a nice fat worm. The toads sat

up, all attention. Hunger had robbed them of their usual sluggish habits.

"There you are, toadies," cried Jackie, throwing the worm to them. "Gobble it up, and you shall have some more."

Both toads eagerly grabbed at the worm and began to gulp it down, one at each end, and Jackie laughed.

"Look, Vi," said he, "they're having a tug of war."

And so they were. Slowly, and with a number of absurd gulplings, each toad swallowed his share of the worm, and their broad mouths met, while the worm wriggled freely inside the mouth of each. It was, indeed, a tug of war. Each determined not to yield his toothsome prize; but at length one got the better of the other, who was forced to disgorge, bit by bit, the half of the worm he had been at such pains to swallow.

"Poor fellow!" said Vi, pityingly. "Do get him another, Jackie. He looks so sad and hungry."

Jackie complied with his sister's request, and the luckless toads looked up at him with gleaming eyes.

"Thank you so much," said the first. "I have not tasted a worm for weeks—not since I've been here, in fact."

"Yes, and I thank you, too," said his companion, "although I should have lost my worm, but for Vi;" and, rising upon his toes, he made a solemn bow.

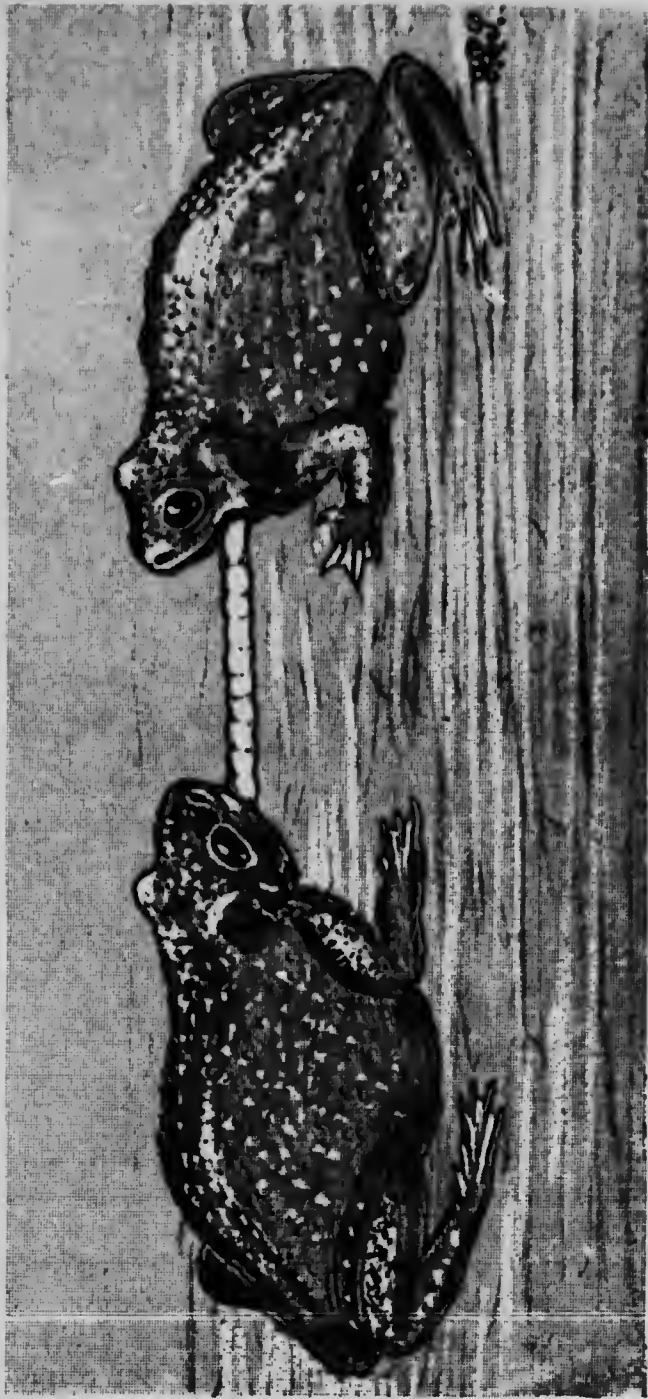
"That's all right," said Jackie. "Now tell us what to do for you, 'cos I don't like to think of you here without any supper."

"The best course would be to take us outside," said one.

"And leave us there," said the other.

"But what would father say?" broke in Vi.

"I know," said Jackie. "I'll leave the door open, and then you can walk in and out for yourselves. But, look here! We want to know lots of things about you,



**BOTH TOADS EAGERLY GRABBED AT THE WORM.**



'cos we've only seen Mr. Natterjack a little tiny bit, yesterday."

"What do you want to know?" asked one.

"Everything," replied Vi.

"Then sit down and ask questions."

"Well, what's your name?" began Jackie, whose mind drifted towards his catechism.

"*Bufo vulgaris*," promptly replied the toad, "and a nasty name it is. Why should we be considered more vulgar than Mr. Natterjack, I wonder?"

"Anyway, you're more lazy," said Vi. "He can run, but you only crawl, and can't even hop like a frog."

Toad Number Two, who had been blinking lazily in a corner, in full enjoyment of his worm, asked simply:

"Can you?"

"Of course not," she replied. "We haven't got the same kind of legs."

"Neither have we," said Toad the First. "If we had hindlegs half as long again as our bodies, we could hop as he does;" and, to clinch his argument, he stretched out his short, dry limbs.

The children were much interested.

"How silly of us, never to have thought of that!" said Jackie. "Of course, you can't hop with legs like yours."

Vi suddenly had an idea.

"Look here, Mr. Toad," she said, "can you squirt out poison from your mouth?"

The throat of Toad Number Two rose and fell rapidly: he was laughing.

"Whoever heard the like?" he said. "People have been telling these tales of us for hundreds of years—at least, so I've been informed. No, my dear, we can't. Neither do we spit fire, although there are folks who believe this. But there's one thing we can do—and

that is, defend ourselves against enemies who want to eat us."

"Who are your enemies?" asked Jackie.

The toad shrugged his shoulders.

"Dogs," said he.

"Cats," added his brother.

"Birds," continued the first; "or, at least, some birds."



"TOADSTOOLS ARE NOT TOADSTOOLS—THEY ARE TODSTOOLS."

"I know," said Vi, triumphantly. "Don't you remember, Jackie, how Spot found a toad once and tried to bite it, running away when he discovered how nasty it tasted? His mouth was all frothy."

"Quite right," replied Jackie. "How is it done?" he inquired, turning to the toads.

"I was that victim," meekly rejoined Toad Number Two. "When we are alarmed, or angry, the little warts

on our bodies give off a nasty juice which dogs don't like. That's why they won't touch us."

"Tell me," said Jackie, thoughtfully, "what have you got to do with toadstools? Do you sit on them?"

"No," replied the toad, shaking his head. "We've nothing to do with them, though it's just like people's ignorance to think we have. Toadstools are not toadstools at all. They are todstools."

"Well," said Vi, "and what are todstools? We are not a bit the wiser."

"Then I'll tell you," replied Mr. Toad. "Todstools are deathstools. 'Tod' means 'death'—at least, so they used to say years and years ago."<sup>1</sup>

The distant boom of the luncheon gong now sounded across the garden.

"Oh, Jackie!" said Vi, "I must go and put on a clean pinafore, or there will be trouble. Come along, quick!"

"Don't forget about the door," said both toads, anxiously.

"All right," assented Jackie, hurrying out and leaving it ajar. "Will that do?"

Two very distinct croaks intimated that the toads were satisfied with this arrangement, and the children hurried back to the house to prepare for luncheon.

\* \* \* \* \*

Jack and Vi started off for the pond with great eagerness after lunch, for they were determined to see the Fairy Lemna again, and Mr. Natterjack, to whose good offices they were entrusted for admission to her weedy palace. There was no waiting to-day. When they reached the spot, Mr. Natterjack was on the lookout, and greeted them with his long-drawn croak—so

<sup>1</sup> The word "Tod" is of German origin, and is the equivalent of "Death."—F.S.

different from the short, jerky salutations of his cousins, the "vulgar" toads.

"Good afternoon," he said solemnly. "I'm glad to see you've not brought those things with you."

"No," said Jackie, shaking his head, "we've not. But I'll tell you what we have done—let the toads out of the greenhouse. We went to see them to-day, and they were starving."

"And Jackie gave them some worms," said Vi, "and each took hold of one end and tried to swallow it."

"And I left the door a tiny bit open," said Jackie, "so they will be able to get out and enjoy themselves, and eat just as much as they want."

Mr. Natterjack's large mouth smiled.

"That was very good of you, children. You have probably saved them a lingering and painful death. But I have news for you to-day from Lemna, Queen of the pond. You are to come with me and see her palace—the outside of it now, and then wait until you are summoned to attend her;" and he led the way to the edge of the pond, at which Jackie and Vi looked intently.

"It doesn't seem very nice," said the former. "It's nothing but nasty, smelly water, and weeds."

"Horrid," continued Vi. "I can't see anything. I know there may be tadpoles, because Uncle Jack told us so."

Mr. Natterjack was disappointed.

"Why," said he, "I think it perfectly lovely. Isn't what you call weed beautiful? Look at it. How bright and green it is. Later on, it will be covered with flowers. Watch it closely, and you will see something."

They did as they were told, and, presently, there was a slight ripple, as a tiny green bud popped its head out of the water.

"What's that?" cried Jackie.

"It's a plant," said Vi. "But where did it come from?"

"That is the Frog-bit" (*Hydrocharis morsus ranae*), said Mr. Natterjack, "a plant that lives all its life in the water. When summer is over it sinks down to rest on the soft velvet mud at the bottom, rising again in the spring. To-day is bright and warm, and it has come up from its winter sleep to live again in the sunshine."

"How lovely!" said Vi. "I never knew that plants could do such things."

"You have yet to learn a lot about plants," said Mr. Natterjack; "and the plants of the pond are the most wonderful of all, as you will see when you come to the submerged forest, where the Fairy Lemna dwells."

There was a sudden splash beside them as he finished speaking.

"Look, there goes a frog," cried Jackie; "such a big one. And how well he dived, too!"

"There are a number of frogs to-day," said Natterjack. "Can't you see any more?"

"Yes," replied Vi, excitedly. "There's one floating on the water. How happy and jolly he looks! And there's another—and another," she continued, pointing in quick succession to the bright eyes of the frogs just appearing among the duckweed above the surface.

Jackie was puzzled.

"How can they breathe when their mouths are under water? Won't they get drowned?"

"Frogs don't breathe through their mouths," replied Mr. Natterjack, highly amused; "neither do toads."

"Then how *do* they breathe?" demanded Vi.

"Through their noses partly," answered their companion; "that's why they stick them out of the water; and partly through their skins. Ah! here's Mr. Froggie

(*Rana temporaria*) come to talk to you, I see. He is a very important person at the Court of Queen Lemna."

Mr. Natterjack had hardly concluded his speech before a fine fat frog jumped, "flop," right in front of the children. Vi started back, rather alarmed.

"Don't be afraid," said the frog, cheerfully. "I



"I'M MR. FROGGIE."

won't hurt you. I'm Mr. Froggie, and I have come from the fairy Lemna to talk to you."

Jackie looked with great interest at the new arrival. He was in colour a beautiful yellowish green, with a lovely white chest. His skin was fresh and smooth and shining, not dull and warty, like Mr. Natterjack's. The latter gentleman became very dignified on the approach

of Mr. Froggie, evidently considering him a much inferior being; but Froggie did not heed his haughtiness in the slightest degree.

"You were talking about me," he continued, "so I thought I'd come and have a chat."

"Yes," replied Vi. "Mr. Natterjack was just saying that you can breathe through your skin."

"Of course," replied Froggie. "It's quite easy if you are wet."

"I say," interrupted Jackie, "isn't it fun to live in the water always, and swim and dive? I'd love it awfully."

Froggie gave a big, scornful croak.

"What do you mean," he inquired, "by 'living in the water always'? I couldn't do it. It would kill me."

"But don't you enjoy the water?" asked Vi.

"Of course I do," replied Froggie. "But I can't live in it. If I never came out, I should die from want of sleep and rest."

"Oh!" said Vi, "I wonder if that is why our froggie died last year—the one we kept in the water-butt, I mean?"

"It was," assented Froggie. "How would you like to be thrown into a pond, and kept there night and day, with nowhere to rest?"

"Shouldn't like it at all, would you, Jackie?" replied Vi.

"No," said Jackie, thoughtfully, remembering how many luckless frogs he had doomed to death in the water-butt.

"My dear Mr. Natterjack," said Froggie, "it is simply wonderful how you and I are misunderstood in this world, and how little ordinary folks know about us. Really, it is high time some one should set them right."

"What do you mean?" demanded Jackie. "I don't understand you."

"I mean this," replied Froggie: "people don't know what an amphibian is."

"Whatever are you talking about?" said Vi. "I thought frogs and toads were reptiles, and now you say they are amphibians—whatever that may be. I know Miss Forman always said they were reptiles."

Mr. Natterjack looked displeased.

"That shows her ignorance," he said, with great emphasis. "We are amphibians, and amphibians are animals who spend a portion of their existence in the water. When we are young—that is, when we are tadpoles—we live in the water and are like fishes; but we drop all that when we grow up."

"But tadpoles aren't a bit like fish," urged Jackie. "They've got no scales, and they haven't any fins."

"They are fish, nevertheless," said Froggie, "as you shall see presently."

Mr. Natterjack was very sulky. He found himself quite in the shade beside the lively Mr. Froggie.

"I'm going for a walk," he said. "I'll leave you to Mr. Froggie, who has a lot to tell you, I daresay. Good afternoon;" and, raising himself on his four legs, he bowed and trotted off.

Froggie was much amused.

"A very worthy person, Mr. Natterjack, but just a little old-fashioned. He will not enjoy the water as we do, but prefers dry land. Still, he is a very good walker, and can travel quite quickly, although, of course, he can't hop."

"I know," said Vi. "We've heard such a lot from him, and from the toads in the greenhouse. Do tell us about yourself, dear Mr. Froggie."

Their new companion thought for awhile.

"Can't you tell me anything about myself?" he



asked slyly. "Have you never read about the Frog Prince in your book of fairy tales?"

"Oh, yes!" cried Vi, who was very fond of reading. "I know;" and then, "Froggie would a-wooing go," she sang.

"Exactly," said Froggie, putting his head on one side.

"I know another," said Jackie, not to be beaten. "The frogs wanted a king, and asked Jove for one, and he sent them a log."

"A most sensible proceeding," said Froggie.

"Yes," said Jackie; "but they grew tired of the log, so he sent them a stork."

"Hush!" whispered Froggie. "Please don't mention it. You make my blood run colder than it is already. I'll tell you a story myself," he continued. "It is in the Sacred Book of the Mohammedans—the Koran. There it is written that Abraham was once thrown into the fire by the Chaldeans, and the frogs came and put out the fire by spitting water upon it."

"Oh!" said Vi, "I must remember that. Perhaps that's why the Egyptians didn't like the plague of frogs."

"Very likely," replied Froggie; "but now I must take you to the Fairy Lemna."

"Oh, do, please," said Vi. "I do so want to see her again. But won't it be very wet down there?" and she pointed to the pond.

"We shan't be able to breathe under the water," added Jackie.

"The Fairy Lemna never finds it wet, and she can breathe," said Froggie, reassuringly, "so I expect you will be the same if you trust to her promise."

"But what have we got to do?" inquired Jackie.

"Shut your eyes and jump in," replied Froggie.

"Oh, dear!" exclaimed Vi, "I'm afraid. Jackie, hold my hand."

Jackie was himself a little nervous. However, he took Vi by the hand.

"Now then, shut your eyes," said Froggie. Both children did so. "One—two—three—J-U-M-P!" he cried.

They both sprang into the air. They seemed to be going a long, long way—up, and up, and up, then down, down, down, very quickly. Splash! They were in the water, and felt it close over their heads as they floated gently until their feet touched the soft mud at the bottom.

"Open your eyes," said Froggie's voice in their ears; and they did so.

## CHAPTER IV

### THE SUBMERGED FOREST

THE children were bewildered at the scene which met their eyes. They stood in the midst of a perfect forest of gently-rustling branches; delicate tendrils waved above, while the tall stalks of rushes appeared like columns all around them. A gentle, greenish light came through the tender leaves of Duckweed (*Lemna minor*) floating on the surface of the pond, and throwing down its tiny white rootlets like stalactites over their heads. Little crystal globes of air studded every submerged leaf and tendril, while in and out of the dense foliage and filaments moved animals of all kinds; some darting swiftly, yet silently, some rolling along, some creeping or floating idly in the water.

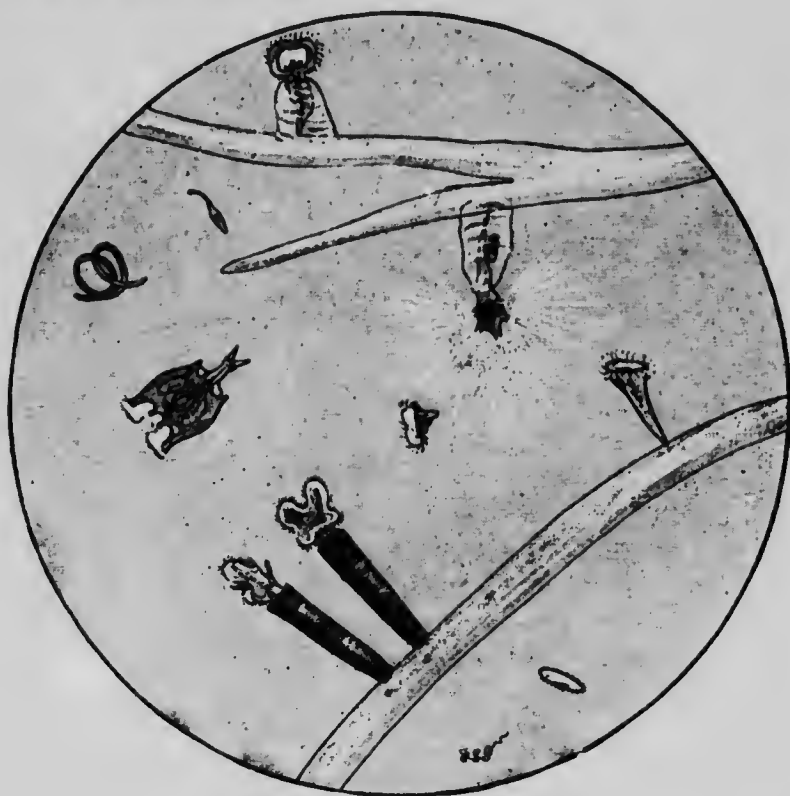
A silver beetle would flash past them for a second, or a sluggish, fat white grub would follow it laboriously, toiling as it went. Here and there lay round, jelly-like masses, which would slowly expand and float upwards with a gentle, wavy sweep, and perhaps be seized by some ravenous dwellers in this submerged forest before they reached the surface. Now and again some concealed monster would thrust his head out of the soft mud, and seize one or other of the many creatures that rested upon it for the moment. It was a scene of the greatest life and energy.

As their eyes grew accustomed to the light, the

children saw the Fairy Lemna standing before them, gently smiling at their astonishment.

"Welcome to Pondland," she said, sweetly. "I see you are a little surprised at my kingdom."

"Oh, dear Fairy Lemna," said Vi, "it is lovely. What a beautiful place to live in!"



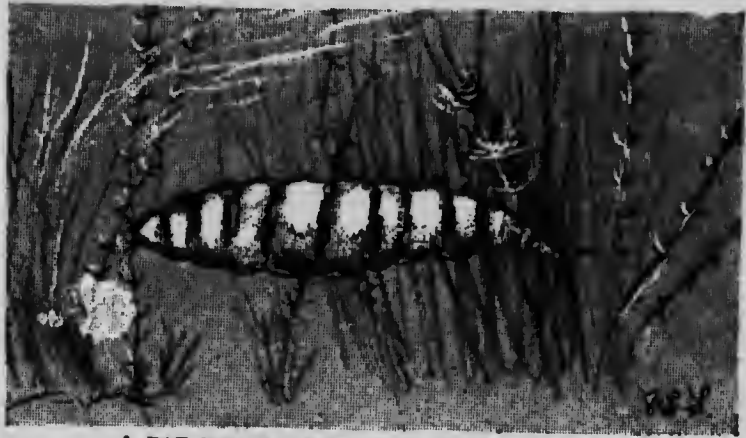
ANIMALS OF ALL KINDS.

"Ripping!" added Jackie. "And what a funny lot of things there are down here. I want to hear all about them."

"So you shall," replied the fairy; "only it will take a very long time. If you come down here often, all through the summer, I daresay you will learn a great

deal that you didn't know before, for every leaf in the forest has a history."

Suddenly there was a terrible crash overhead, which set the streaming filaments of weeds waving to and fro like green snakes, while a host of merry revellers hurriedly sped through the confines of the forest in search of shelter. The crystal bubbles from the leaves, disturbed by the rude shock, rose slowly to the surface like little balloons. Vi was rather frightened.



A FAT WHITE GRUB, TOILING AS IT WENT.

"Oh, dear!" she said. "What's that? It gave me such a thrill."

Lemna smiled and laid her delicate hand upon Vi's shoulder.

"Nothing to alarm you, my dear. Only a frog who has come into the pond and startled some of my subjects."

Jackie was deeply interested in the bubbles which rose to the surface.

"What are they?" he asked.

Lemna led them to the stem of a weed which towered like a gigantic palm-tree, its leaves, broad and flat,

floating on the surface above them. Around the stem was a dense tangle of green threads, arranged in feathery clusters which swayed gently in the water.

"This," said she, "is one of the most beautiful trees in the Pond Forest. It is called the Water-crowfoot (*Ranunculus aquatilis*). You will see its full beauty later on, when it puts forth its flowers. Most of the trees in my forest burst into flower in the sultry June days."

"Yes," said Jackie; "but I want to know about the bubbles. They look exactly like those in a glass of soda water, don't they, Vi?"

"Patience, Jackie," said Lemna. "I was just going to tell you about them. The Pond Forest is the deepest secret of my kingdom. Were it not for the weeds—as you call them—no animal would ever live here, for every living thing around you depends for its existence upon them. They are the life of the pond."

"Why," said Jackie, "they don't seem to do anything except grow."

"They are silent workers," continued Lemna. "Always toiling, never resting."



"THEY ARE THE LIFE OF THE POND."

"But what do they do?" persisted Jackie.

"My dear little boy," said Lemna, shaking her head, "if you will only wait patiently, I will tell you. You know that, in order to breathe, you must have air."

"I know that," said Jackie, nodding his head.

"But how can there be any air under the water?" asked Vi, in bewilderment.

"That is what I am going to tell you," replied Lemna. "You know, when a lot of people are in a room together, with doors and windows tightly shut, the atmosphere gets very close, and breathing becomes difficult, doesn't it?"

Jackie nodded.

"Like church," he said abruptly.

Lemna smiled as she continued:

"There is a gas in the air called oxygen, which means 'life giver.' This is necessary for all breathing and living creatures. They take it into their lungs, and when they breathe, it is converted into a deadly gas called carbonic acid. These plants—indeed, all plants—live upon this deadly gas. It is to them what oxygen is to breathing animals. So, as fast as animals breathe out carbonic acid, the plants consume it and give back oxygen. The little bubbles you see on everything are the supply of life which the plants are providing for the animals, who, in their turn, give food for the plants."

"I see," cried Jackie, and his eyes sparkled. "It's like the pigs at the bottom of the garden. We give them all the potato peelings we can't eat, and they give us bacon when they are killed."

"Very much the same thing," replied Lemna. "Of course, all animals don't depend upon plants for life, because many, like frogs and newts, go up to the air for their supply; but all the water-dwellers—those who never leave the water—depend entirely upon this

arrangement. See," she continued, pointing to a whirling little water-shrimp who had just flitted past them, "there is one of the pond-dwellers who lives on the air from the plants."

Both children watched the jolly little creature as he jerked his way along to the stalk of the water crowfoot, and greedily tapped the little bubbles of life-giving air.

"Then," continued Lemna, "these bubbles part with their valuable gas to the water as well, so that every drop is full of life, while the plants live."

Vi was very thoughtful. She was wrestling with the problem.

"Of course," she said. "We ought to have known that."

"Why?" demanded Jackie.

"Don't you remember," said Vi, "when Uncle Jack showed us his air-pump, how, when he put a tumbler of water inside the bell-glass and took out all the air, the little bubbles came out of the water, too?"

"Of course," replied Jackie. "But where does the air in the water go to? We can't see it."

"My dear Jackie," said Lemna, "there are many things you cannot see with your eyes, but which exist. Let me tell you about this. Suppose you were to fill a tumbler full of marbles. Would it be quite full—of marbles?"

"Not quite," said Vi, "because there would be a little space of air between the round parts of the marbles."

"Exactly," said Lemna. "Water is made up of thousands of little round globes, like marbles, so small that you cannot see them, and the tiny spaces between these water marbles are filled with air. That is why animals can live underneath the water."

"But," urged Jackie, "we used to have a bowl<sup>of</sup> of goldfish at home—a big, round, glass bowl—and there



were no weeds in it, yet they lived for quite a long time."

"Oh, Jackie!" said Lemna, reproachfully, "how little did you know the cruelty of keeping your poor fish like that. Did you never see them rise to the top of the water and gasp for breath?"

"Yes," answered Vi, "but we thought they were enjoying themselves."

"Is this pond at all like the inside of your bowl of goldfish?" asked Lemna, shaking her head. "See, here all is dimly dark and cool; there is a fair forest of plants, and a soft, muddy floor, all so restful. But your bowl of goldfish had no nice plants to give air to those poor captives, no cool shade for them to doze in, no rocks for them to hide in, no soft mud to find them food. The glaring light from the window was always upon them, making their eyes to ache, the sun poured in and there was no shade to protect them. Promise me, Vi, that you will never keep fish in such a terrible home again, for you killed them."

"No, we didn't," asserted Jackie. "I used to give them crumbs and ants' eggs every day, only they wouldn't eat all that I threw in."

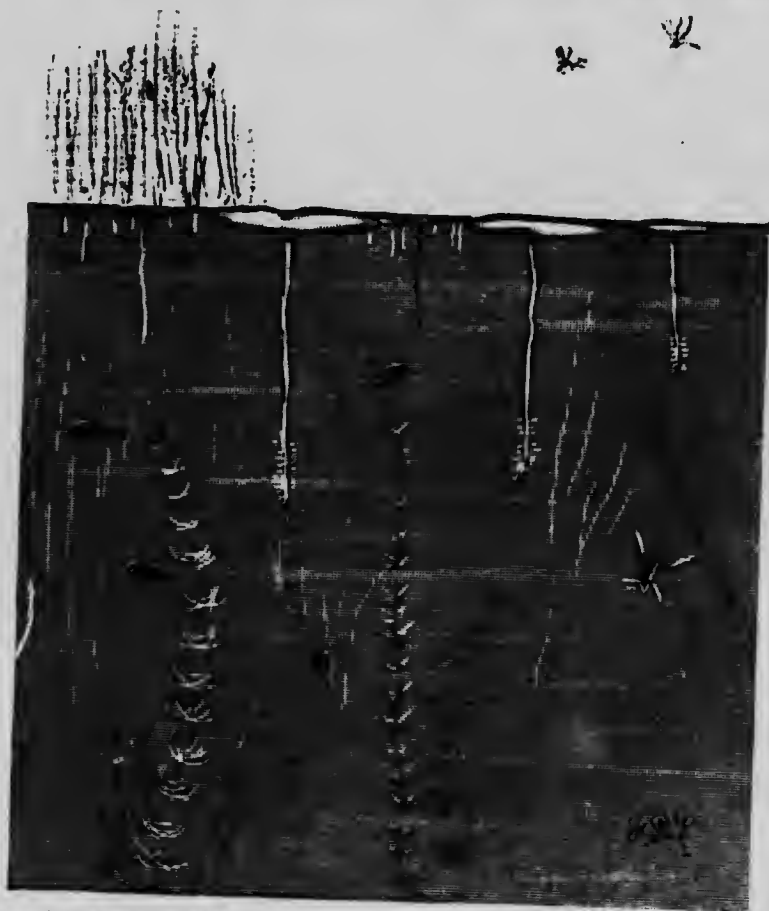
"And so," said Lemna, "you left it there until it decayed, and made the water foul. No, Jackie, you didn't mean to be cruel; but if you ever keep such pets again, try to give them a comfortable home, such as they have been used to. How would you like to be put out into a bare, stony desert, without any trees, with no bed to sleep in; to have your food thrown to you, and left to rot in the sun? Wouldn't you die, in time?"

"I never thought of that," said Jackie. "Of course I should die. It would be beastly."

"Then," said Lemna, "learn in future to watch your pets, and give each of them exactly the food and home it likes best. It is your duty to do this; and if you

fail, you are guilty of cruelty to God's creatures. I know you are not cruel, but only thoughtless. Remember this, won't you?"

"Yes, indeed," said Vi. "Mr. Toad taught us one



"THE PLANTS FLOATING ABOVE YOU ARE DUCKWEED."

lesson to-day in the greenhouse—Mr. Natterjack told us about it yesterday. Thank you so much, dear Lemna, for what you said about the goldfish."

"That's right, Vi," said Lemna, stroking her curly head. "Make your pets love you. There is so much

more interest in that, for then they will become quite tame."

"Lemna," said Vi, "why are all those plants floating in the water? Why don't they grow in the earth, like the others?"

"The plants floating above you," said Lemna, with her silvery laugh, "are duckweed. It is from them that I take my name of Lemna. They derive all their nourishment from the water, through those long, slender roots that hang down above us. They are among the most useful of all the plants of the pond. See what a beautiful, cool, dark shelter they afford, just when we want it."

"But," said Jackie, "it must be very dark here in the winter, when there is no sun. Don't they keep out all the light then?"

"Not at all," replied Lemna, "because, as soon as summer is over, they sink down to the bottom and rest until the winter has gone."

"How is it these plants don't choke the pond entirely?" said Vi. "Don't they grow very quickly?"

Lemna shook her head.

"Oh, children," she said, "what questions you ask, to be sure! Nothing in Nature is ever too plentiful. It is only man who disarranges the balance. There is just enough of everything in the world, and if at any time there is too much, then something will happen to set matters straight. There are always plenty of animals to feed in our forest here. If the weeds, as you call them, increase too much, there is always a snail ready to eat them, just as on land."

"Then," said Jackie, "if you had too many snails, they would eat up all your forest?"

"There are never too many," replied Lemna, "for other animals are always ready to eat snails when they are plentiful."

Jackie was silent—the wonderful balance of Nature surprised him; but he was not to be beaten.

“You talked of food going bad in the goldfish globe,” he remarked. “How do you manage here, when anything dies? Doesn’t it go bad and make the water foul, just as it did with us?”

This was a triumphant question. He had at last puzzled the fairy—of this he was sure. Vi was amazed at so searching a query.

“No, Jackie,” replied Lemna. “The water never becomes foul, for the simple reason that there are lots of little scavengers who eat up everything that is likely to make it unfit for its inhabitants.”

“You’re wrong,” said Jackie, shaking his head. “There’s a wet ditch that Miss Forman won’t let us go near. She says it is poisonous. How about that? Nothing can live there.”

“Mistaken again, Jackie,” said Lemna. “There are animals who couldn’t live anywhere else. But I can’t tell you about that now. Later on, perhaps, we will talk about it.”

“Oh, dear,” said Vi, “this is very wonderful. Do all these creatures never quarrel or fight?”

“Indeed they do,” said Lemna. “Life in Pondland is a constant struggle for existence. Most of my subjects live upon one another.”

“How horrid!” Vi exclaimed. “It’s just like bees. The queens used to be always quarrelling with and killing other queens.”

“And here they do it for exactly the same reason,” said Lemna. “Each one is food for the other, but the weak know how to protect themselves from the strong, and are able to hide where they won’t be seen.”

Jackie was about to make a reply, when some globes of jelly which were lying at his feet suddenly began to move.

"There they go!" he cried. "Look at them!" and they watched the soft mass slowly make its journey to the surface.

A large, horny beetle darted forward and secured one of the globes, all of which had a tiny black dot inside, and began to devour it greedily.

"Oh," said Vi, "look at that beetle! He's eating the pretty little jelly balls. What are they?"

"Frogs' eggs," replied Lemna.

"What funny-looking eggs," said Jackie, laughing. "They've got no shells."

"Oh, yes, they have, only the shell is different from that of a bird's egg," said Lemna. "That tiny black dot is the yolk. If you wait a little longer, you will see that all those eggs will turn into tadpoles."

"How nice!" said Vi, who was in love with Pondland. "I love the dear little wriggling black things."

"You didn't think so last night," said Jackie. "But why haven't they got any legs?"

"Oh, Jackie," said Lemna, "what a hurry you are in! First of all you must watch the eggs. We can talk about tadpoles afterwards."

"Very well," assented Jackie. "Why are some of the little jelly balls larger than others? And why do the large ones always float to the top?"

"Be quiet, Jackie," remonstrated Vi. "You keep on asking questions, and don't give Lemna time to answer."

Lemna smiled.

"Now, Jackie, let me begin to tell you. First of all, the mother frog lays the eggs. Those are the 'jelly balls,' as you call them, which you see dotted about here in clumps. Very well. After a time, the jelly ball begins to swell, and after it has swollen to a certain size it rises to the top of the water, where it waits until it is hatched. Would you like to look at some?" she added, pointing to a mass of eggs floating on the surface

above them, at which the dwellers in the water forest were making vigorous darts from time to time, carrying off their spoils.

"Please, yes," said Vi. "I should like to look at them, and see what they are like."

Lemna took the children by the hand, and floated gently upward amid the branches of her green forest. They were now poised in the water, within quite a short distance of the surface. The green floats of duckweed and water-crowfoot were crowded with tiny creatures, all creeping about in ceaseless confusion. Silvery flashes shot across the surface above them, where an occasional insect swept the water in its flight. The frog-spawn—or, as Jackie called it, the "jelly balls"—hovered lazily.

"See," said Lemna, "how the eggs are preparing for the hatching season."

"Why," said Jackie, "the little black dots are all different sizes."

"Those eggs were laid last week," replied Lemna. "You see, the little black dot, or yolk, has changed its shape."

"Yes," said Vi. "It looks like a tiny mulberry now, doesn't it?"

"That is exactly the case," replied Lemna; "and see, there is one of the eggs with the yolk almost showing the body of the little tadpole. In a week or so you will find them quite ready to leave their prison and begin life for themselves."

"But, Lemna," said Jackie, "why don't you stop all the other animals from eating up the eggs? If they keep on eating and eating them, there won't be any left?"

"I think there will," replied Lemna. "Frogs and toads lay many eggs. One toad has been known to lay a string over a hundred feet long."

"Oh!" exclaimed Vi. "There must have been thousands of them."

"There were," replied Lemna: "about nineteen thousand eggs."

"Why," said Jackie, "our old Cochin-China hen only lays one at a time, and makes an awful fuss about it. What would she do if she laid nineteen thousand? But if all those nineteen thousand eggs had hatched, the pond would have been quite full of tadpoles, wouldn't it, Lemna?"

"Yes, Jackie," she replied; "and, remember, that was from the laying of only one toad. If every frog or toad laid as many, and all were to hatch, what would happen?"

"I don't know," said Jackie.

"Well," said Lemna, "there would not be enough for them to eat, and they would devour each other. So, you see, in this as in everything else, Nature arranges that the balance of life in the pond shall be equal, and Mrs. Frog's eggs help to keep other animals alive."

"But do all tadpoles turn into froggies?" inquired Vi.

"Not all," replied Lemna. "Some die, and some are eaten up when they are young; for there are many greedy mouths only too anxious for so tender a morsel as a tadpole. But you will see for yourselves later. Now you must run away home."

"How are we to get away?" inquired Vi.

"Mr. Frog will see to that," replied Lemna; and a large, webbed hand stretched itself out to them from above. "Catch hold, children, and he will pull you out."

Jackie and Vi did as they were told, and felt themselves firmly seized and gently landed on the bank, when Mr. Frog looked at them with his golden-rimmed eyes.

"Well," he asked, "did you enjoy your visit?"

"Oh, yes," said Vi. "It was lovely."

"Then come again," said Froggie; and he waved his "hand" to them by way of farewell as they turned and ran towards the house.

## CHAPTER V

### JACKIE AND VI SEE THE OGRE

JACKIE was swinging on the garden roller, while Vi reposed on the handle of the wheelbarrow.

"It is rum," said the former, reflectively, "that Miss Forman doesn't seem to know much about frogs and things. She says they live in the water, and are nasty and clammy—not at all nice pets to have, and that a parrot would be nicer. Parrot, indeed!" and he gave a sniff of the most utter contempt.

"Never mind," said the familiar voice of Natterjack from the grass at their feet.

In a moment both children were on the ground, welcoming their old friend.

"Oh, Mr. Natterjack," said Vi, "I am pleased to see you. What was the matter yesterday? You ran away and left us."

"The fact is," said Natterjack, looking very much ashamed of himself. "I hate frogs. They are so vulgar and common, and so noisy. You must forgive me. Lemna was quite cross."

"Of course we will," replied Vi. "But however did you manage to come all this way? Aren't you tired after your long walk?"

"Walk!" echoed Natterjack, with scorn. "Do you call it a walk from the pond to the lawn? Why, it's a mere stroll! I take ever so much longer journeys



than this, and my comrades often go on quite a tour when the weather is fine—particularly at night," he added, with a wink, "when there are plenty of nice flies about."

"I know," cried Jackie, eagerly. "Uncle Jack told us about it. He said that he used to open the bodies of toads, sometimes, because he found rare beetles inside them which he would never have caught in his net."

"Don't talk about such things, please," said Natterjack. "You make me feel uncomfortable. Cut us open, indeed! As if we had not enough to put up with as it is."

"Whatever is the matter with your foot, Mr. Natterjack?" cried Vi, suddenly.

Jackie bent over him in astonishment.

"Why," said he, "there is a tiny shell holding on to your toe."

"I know there is," replied their friend. "That's one of the things we have to endure. These little snails—or, rather, a kind of mussel; 'bivalves,' I believe they are called—will catch hold of our toes when they want a ride. It's very uncomfortable," he added.

"Poor Mr. Natterjack!" said Vi. "But won't he let go?"

"Oh, yes, my dear," replied the friendly toad; "he'll let go fast enough when I come to water again. He was tired of his old pool, I suppose, and wanted a change; so while I was paddling last night he caught hold of me, and I had to come all the way home with him hanging on to my toe."

Jackie had an inspiration.

"I know what a bivalve is," said he. "Oysters are bivalves—it says so in the geography book. Don't you remember, Vi? It calls oysters 'delicious bivalves.'"

"Can't say I've found this one very delicious," said Natterjack, drily. "It pinches terribly."

"Like my new boots," added Vi, feelingly. "But it is funny, though, to think that they like to get a lift on your poor toes, Mr. Natterjack."

"It's not a bit funny," said he.

"Can't they walk at all?" inquired Jackie.

"That depends on what you call walking," returned Natterjack. "They have a 'foot,' as it is termed, but can't walk very fast on it. You'll see heaps of them in



"THESE LITTLE SNAILS WILL CATCH HOLD OF OUR TOES."

the pond. That reminds me: Lemna is expecting you this afternoon, and sent me to say so."

"Is she?" said Vi. "Let's go at once, Jackie. I do so want to see the forest again, and all the funny things bobbing about there. I'll run and get my hat. Come on, Jackie."

"All right," said Natterjack. "I'll go and say you're coming. I shan't be long;" and, turning about, their friend positively ran off quite gaily, with the bivalve still clinging to his foot.

The children could not help admiring the grace and ease with which he hurried away.

"Well," commented Jackie, "I never thought he could walk so fast."

"With tight boots, too," added Vi. "It's perfectly wonderful."

Their hats were soon found, and off they went. Before they reached the pond Natterjack's voice was heard calling to them:

"Come along. I'm going to get rid of my little mussel at once. I can stand it no longer;" and he deliberately sat down in the reedy margin of the pond, where the mud was soft.

Jackie and Vi watched him—or, rather, his foot—with breathless interest. Gradually the rounded shells opened and the little traveller sank to the bottom of the shallow pool, where it seemed by some unknown process to bury itself in the mud; then, with long, gradual slides, it moved deeper and deeper until it was lost to sight. Natterjack gave a sigh of relief.

"Thank goodness!" he said. "I do assure you it was a very painful experience."

"Do they always fasten on to you like that?" asked Vi, compassionately.

"Not always," rejoined Natterjack. "Sometimes they fix on to a bird's claw—that is, if it is a water-bird, who frequents marshes or pools. But I can run away to Lemna. I'm very busy—going to change my clothes."

"Change your clothes?" said Jackie, sympathetically. "Have you got wet, or are you going to a party?"

"No," said Natterjack, smiling. "When I find my skin tight or uncomfortable I always change it."

"But you have no other," said Vi, anxiously.

"Oh, yes, I have," returned Natterjack. "I shall roll off my skin presently, and there will be a new one underneath. It won't take long, and I'll show you my new coat before you go back to tea. Now go to Lemna."

"Stay, Mr. Natterjack," said Vi. "How are we to go?"

"Just as you did the other day, my dear," he replied. "Shut your eyes and jump."

"Are you ready, Vi?" cried Jackie. "One, two, three—off!" and away they went, just as before, up, and up, and up, and down, down, down; then a gentle splash, and they felt themselves floating to the bottom of the pond once more, where Lemna was waiting to receive them.

"So you got my message?" she inquired.

"Oh, yes," replied Vi. "Poor Mr. Natterjack, with a nasty sort of snail holding on to his foot, came all the way to tell us. Wasn't it nice of him?"

"Natterjack is always obedient," said Lemna, smiling.

Jackie, looking a trifle uncomfortable, hastily changed the subject. Obedience and Jackie were not always on the best of terms.

"Won't you show us the sort of snail—bivalve," he added, correcting himself. "I want to see what it looks like."

"You will not have far to go, Jackie," said Lemna, "for there are many of them here;" and she pointed to one of the offending bivalves, who was peacefully reposing in the mud, quite close to them—a round-looking object of a brownish tint, slightly relieved by bands of a brighter colour.

"It's just like a mussel," Jackie remarked. "It has two shells."

"And it opens and shuts like a book," added Vi. "It shut on poor Mr. Natterjack's toe."

A tiny frill protruded from the upper edge of the shell.

"What's that thing sticking out?" cried Jackie, athirst for information. "Is it its head?"

"Not exactly," replied Lemna. "That is its breathing apparatus."

"What?" said Vi. "Does it breathe?"

"Of course," replied Lemna. "Nearly every animal breathes somehow. You will remember I explained that to you before. This little creature is called by a very long name—*Sphaerium corneum*. We will call her the sphere shell for short. The animal inside breathes through the little frill you see sticking out."

"How?" demanded Jackie. "There are no air bubbles for it to breathe?"

"No," said Lemna, "but didn't I tell you there was air in the water?"

"Of course you did," said Vi. "Don't you remember, Jackie? Lemna said that the water was full of air, just like a glassful of marbles."

"So she did," replied Jackie. "I had forgotten."

"Well," continued the fairy, "it sucks in the water through that little frill, takes all the air out of it, and then squirts the water out again through a hole just above."

"But how does it move about?" inquired Jackie.

"Mr. Natterjack said it had a foot, but I can't see any. It's half buried in the mud."

"That's just where the foot is," replied Lemna. "It sticks down into the mud, and works the body along just in the same way as a snail. See, it is moving now," as the sphere shell slid gently forwards.

"What does it eat?" asked Jackie; "or does it eat at all?"

"My dear Jackie," said Lemna, in amazement, "eating is the first law of Nature. Everything eats, and, as a rule, the more the animal eats the better. Were it not for thousands of hungry beings, this world would not be fit to live in. It is the first and most important law of all. This sphere shell eats hundreds of tiny

creatures which are all around us, but which you cannot see. They are called *Infusorians*, and live in water."

"I know," cried Vi, in great glee. "Little curly,



"THEY ARE CALLED INFUSORIANS."

wiggly things, that Uncle Jack once showed us with his microscope in a drop of water."

"Yes," said Lemna, "something of the kind. You are quite right."

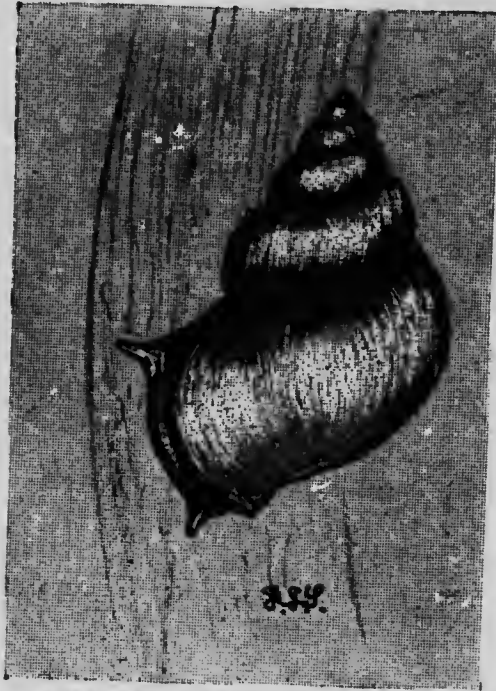
"Lemna," Vi asked, "are there any other things like this in the pond?"

"Oh, yes," replied the fairy, "we are deeply indebted

to the shell-dwellers, for they serve a most useful purpose."

"What's that?" inquired Jackie.

"They help to keep the water clear and free from decay. Sometimes, you know, a plant dies; or perhaps they grow too quickly; or their leaves get covered with slime——"



"SHE SPENDS HER LIFE IN CLEANING  
THE PLANTS."

"Like an old sponge," suggested Jackie.

"Not quite like that; but still, plants do get covered with slime."

"What is slime?" asked Vi.

"Chiefly, either tiny animals, or fungi, like toadstools," replied Lemna. "Then Molly the Charwoman (*Bythinia tentaculata*) comes to clean the house."

"And who is Molly the Charwoman?" inquired Jackie.

"I will show you," said Lemna; and she led them to a tall stalk—the water-crowfoot—where a little snail was busily engaged in eating the slime collected upon it. "There," said she, pointing to the industrious little creature, "that is Molly the Charwoman. She spends her life in cleaning the plants, and keeping the leaves free from dirt, so that they can breathe."



"Do plants breathe?" asked Vi. "I never knew that."

"Of course," replied Lemna. "I told you before."

"Why, you silly," said Jackie, "haven't you seen the gardener clean the leaves of the india-rubber plant?"

"Yes," said Vi, "but I thought that was only to make it look nice."

"No," said Lemna.

"All plants, and many animals, breathe through their skins, and if they are dirty they are not able to do so. Your friend Natterjack knows this, and so does Mr. Froggie."

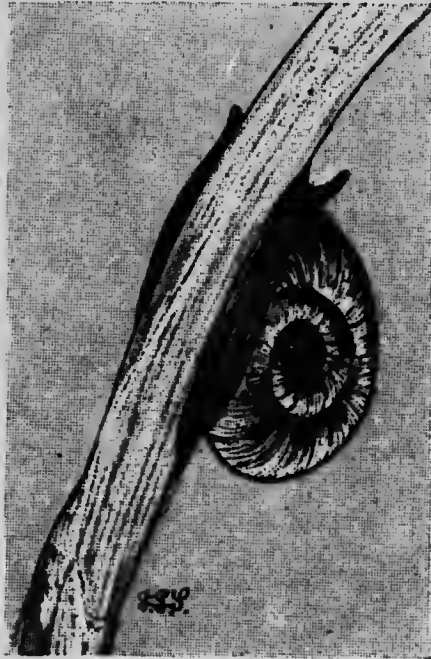
"And so do I," broke in Vi. "My hands feel so much nicer after I have washed them, when they have been dirty."

The little snail, or Molly, as Lemna called her, still went on with her ceaseless task.

"There's another," said Jackie, pointing to a fine black snail. "One of a different kind. Look, Vi. He is exactly like one of those catherine-wheel fireworks."

Jackie's description was a good one. The snail was very like a pin-wheel. He, too, was busy, devouring not only slime, but also the leaves of the plants themselves.

"That," said Lemna, "is *Planorbis*, the Scavenger.



"HE IS A VEGETARIAN."



He is a vegetarian, and eats all the rotting weeds, or dead leaves—everything he sees—otherwise they would decay, and make the water foul. Now, if you had kept him in your goldfish globe, you would have found him very useful, for I am sure he would have helped you to keep the water fresh. You see, in Pondland we have our own scavengers, just as they have in big cities on dry land. Their duties are the same—to clear away the dirt, and destroy anything that may be bad for the health of the citizens."

"Jackie," said Vi, "do you remember the little sweeper bees in Hiveland? Don't these snail people remind you of them?"

"Yes," replied Jackie, "they do. It is all so wonderful. I thought a pond was just a piece of water for animals to live in, and never thought that each had its own work to do."

"Nearly every animal has some duty that it owes to the others, and performs it," Lemna remarked.

Just then a very large, fat, water-beetle bobbed past them, and seized a luckless water-shrimp who was passing at the time. Two strong forelegs held his prey tight. The poor shrimp wriggled and endeavoured to escape, but with ut success, and the cruel, horny jaws closed upon and ate him greedily.

"What a horrible creature!" said Vi. "Who is he?"

"He is a terrible being indeed," said Lemna, shaking her head. "He is the Water-ogre (*Dytiscus marginalis*), and is a beetle."

"Any one can see that," said Jackie. "I know a beetle when I see one."

"Do you?" inquired Lemna, ignoring his rudeness.

"Yes," said Jackie, with great scorn. "There are heaps of them in the kitchen—black-beetles."

"No, Jackie," said Lemna, laughing. "Black-beetles

JACKIE AND VI SEE THE OGRE 57

are quite different from this one. They are not beetles at all. A beetle is an insect with hard, horny wing-cases."

"I know them," said Vi. "They fly about the garden at night, and make a big buzz as they go along."



"HE IS THE WATER-OGRE" (*DYTISCUS MARGINALIS*).

"Quite right," said Lemna "There are beetles everywhere in Nature—even, as you see, under water. They keep their beautiful gossamer wings neatly folded up inside those hard, horny cases. The black-beetles that Jackie talks about are straight-winged, and belong to quite another class of insects."

Jackie was silent: he felt that he had spoken too hastily.

"Come and look at the ogre," said Lemna. "Don't be afraid, for, though he is very savage, he won't hurt us."

They crept towards the water-ogre, who was greedily finishing the remains of the shrimp, his large eyes glistening with satisfaction. He was a beautiful-looking fellow, of a rich dark-brown, with just a yellowish margin to his wing-cases.

"How does he breathe under water?" inquired Jackie. "Won't he get drowned if he remains long below the surface?"

"No," replied Lemna. "Nearly all insects and animals of the pond carry a little supply of air when they come below. Master Ogre has a tiny air-cage inside his wing-cases, so that, when he takes his dive, he is able to live for some time, without going to the surface for more."

"I can't understand," remarked Jackie, very puzzled, "why he doesn't pop up to the surface, if he has air inside his wing-cases. I know, if I cork a bottle, and hold it under water, it always pops up when I let go, and floats. Why doesn't he do the same?"

"He would," replied Lemna, "if he was not careful to hold on to something. See, he is clinging with two of his six legs to the starwort now."

"So he is," said Vi. "Then, if there were no weeds, he wouldn't be able to stay below for long, because there would be nothing to catch hold of?"

"Exactly," said Lemna. "See how admirably Nature has fitted him for life in the water: his boat-like shape, and his legs, which are like oars. He uses them as such, but he is very, very terrible, and all the other animals dread him. He is the shark of the pond, and—I am sorry to say—a cannibal, eating not only his friends, but also his own children."

"Oh!" said Vi. "How dreadful! Doesn't his wife stop him?"

"She is worse than he is," replied Lemna. "Usually



"THE MERRY WHIRLIGIGS" (GYRINUS NATANS).

they are very unhappy, and, generally speaking, his wife eats him, and then gets another husband."

Jackie, hugely pleased, grinned.

"Serve him right," he said. "Needles and pins, needles and pins; when a man's married his trouble begins!"

Both Lemna and Vi were very pleased at this sally.

"Well," said Lemna, at length, "we shall see a lot of the ogre, for he is one of the most important persons in the pond; so we will leave him for the present, and look at some of the other people whose habits you will learn as the year goes on. Come now to the surface, and see the Merry Whirligigs" (*Gyrinus natans*).

"What a funny name!" said Vi. "Who are they?"

"They are beetles, too," rejoined Lemna; "but very sociable, and spend their lives in dancing."

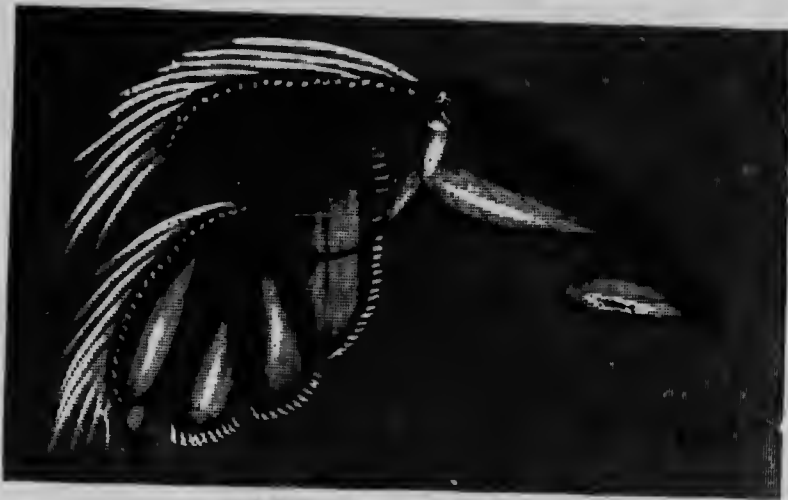
"How silly!" said Jackie, looking anything but pleased. "I hate dancing. We have to do it in winter—every Thursday. It's utter rot!"

Lemna took them by the hand, and they rose to the surface; but, as their heads touched the top of the water, they seemed to feel a difficulty in getting through to the air above. At last, however, they emerged, and all three sat together on the lolling, heart-shaped leaf of a pondweed. But how different was the pond when viewed by them in their present state! Now they were tiny little folk, barely three inches high, and the pond looked like a vast lake, covered with luxuriant plants and inhabited by huge, uncouth creatures. Here and there the bright eyes of a floating frog stared at them; beyond was a primeval forest of tall reeds, mares'-tails, and other plants. Clear globes of frogs' spawn swam around them, while little groups of shiny, metallic beetles darted round and round in never-ending circles, and disappeared into the depths beneath, only to reappear elsewhere and resume their endless dance.

Now and again the body of a fierce water-ogre would suddenly emerge from below and pause awhile; then,

with a swift stroke of his oars, the monster would disappear, probably to swoop down upon some hapless insect or grub. The very leaf on which they sat was teeming with life, and, even there, Molly was busily cleaning away the slime, that the plant might breathe more freely.

"I say, Lemna," inquired Jackie, "how was it we couldn't get through the water when we wanted to come out? We seemed to hit against something."



THE PADDLE OF A WHIRLIGIG.

"So you did," she replied.

"What was it?" urged Jackie. "It almost seemed as if we broke through a very, very thin sheet of ice."

"Well," said Lemna, "it was something like that. There is always a thin skin, or film, difficult to break through, on the top of the water."

"I can't understand that," said Vi.

"Perhaps not," replied Lemna; "but you will later."

Jackie had again relapsed into one of his thoughtful moods.

"I think I know what you mean," he said shortly. "Don't you remember that Uncle Jack once showed us how to make a needle float on a glass of water, by putting it there just ever so gently?"

"I do," said Vi. "But why did it float?"

"Can't you see?" he replied. "It rested on the ice. Then, when he dropped it into the water, it sank, because it broke the ice."

"Quite right, Jackie," said Lemna. "That is precisely the case. You will see, by-and-bye, a lot of curious creatures running about on this film or ice, as you call it—living on it, exactly as you live and run about on dry land."

"What fun!" said Jackie.

"Now, look at the whirligigs," suggested Lemna. "Aren't they happy?"

Indeed they were! Their bright, blue-black bodies shot round and round incessantly; then, without a moment's warning, one would dive downwards, followed by his comrades. But the water-ogre was watching them, too. He suddenly made a dart at a particularly lively party who were dancing a complicated quadrille; but he was not quick enough. In a moment they had disappeared, or were busily dancing far out of his reach.

"The silly old ogre wasn't quick enough that time," said Jackie, with a laugh.

"No," said Lemna; "he is very fond of a meal of whirligigs; but, naturally, they are not at all anxious to be eaten, so they keep a keen lookout for him and all other enemies. A whirligig is highly esteemed as a tit-bit by birds as well, and, in spite of all their gaiety, they have to be very careful. Look!" she added, pointing to a party of early swallows who were circling the pond. "There are more enemies, and our little friends are well aware of their presence."



"How do they manage to live at all?" asked Jackie. "The beetles rush at them from below, and the birds swoop down from above; surely, they never get any peace."

"Oh, yes, they do," answered Lemna. "Nature has provided them with the best defence."

"And what's that?" inquired Vi.

"Sharp eyes," answered Lemna. "Each of them has two pairs—one pair looks up in the air, the other down into the pond, so that they can see exactly all that goes on around them."

"I'm glad Miss Forman hasn't got two pairs of eyes like that," said Jackie. "She's sharp enough as it is; but if she were a whirligig beetle, there would be no fun at all, would there, Vi?"

"Fancy Miss Forman a beetle!" said Vi; "how funny she would look!" and the children laughed heartily at the idea.

"Now," said Lemna, "it is getting late, and you must be going."

"But Natterjack says he is going to change his clothes, and we want to see his new suit first," cried Jackie.

"Then come along," said a familiar voice, as Mr. Froggie swam towards them. "Jump on my back, and I will give you a ride. Hold tight!" he continued, as the children scrambled on to his smooth skin. A few strokes with his long, muscular legs, and they were at the bank. "Jump off," he cried. They did so, and found themselves once more on dry land, with the pond before them, while a tiny figure on the pondweed waved farewell; it was Lemna.



## CHAPTER VI

### MASTER DRAGON-FLY

“**N**OW then,” suggested Jackie, “suppose we go and look at Natterjack’s new suit?”

Froggie gave a croak of approval.

“You won’t have far to go,” he replied; “he’s only in the clump of rushes over there, and has nearly finished his changing, I know. He always retires to his room on these occasions.”

“What does he do with his old clothes?” inquired Jackie. “Mother always gives mine to boys in the village.”

“I don’t think our old friend would do that,” said Froggie, looking very wise. “They would be no good to other toads, because they all have a new suit ready for them whenever they want one.”

“How jolly!” said Jackie. “And there’s no one to scold them if they tear their things.”

“Well,” said Vi, “I think it must be perfectly lovely to be a toad. They are always bothering me about my clothes. I try to keep them nice, but they will get torn—they are so flimsy. What’s the good of all this lace?” she added, pointing to the trimmings on her pinafore. “It’s sure to get caught in something, and then I shall be scolded. I can’t help it, though I try my very best.”

“Come on,” said Jackie, “let’s go and see Natter-

jack ;" and they carefully pulled aside the rushes, looking everywhere for their friend. They found him at last in a snug corner all by himself. He looked up at them and was just a little cross.

"Oh! It's you?" he said. "I wonder how it is that I can't change my clothes without being disturbed!"

"I'm sorry if we have disturbed you," said Vi.

"All right," said Natterjack, airily; "I've nearly finished."

His head and shoulders were resplendent in his new suit: the olive and yellow of his skin was fresh and glowing; so were the reddish warts which studded his somewhat bloated body. But his hindlegs were still encased in their old costume, and he was busily engaged in peeling off what corresponds to the nether garments of a man. It was a very solemn performance and required the assistance of both hands. Bit by bit Mr. Natterjack removed his old clothes and revealed the bright new suit underneath. At last he had cast off the whole of the old skin, even to the delicate socks which covered his hindfeet, and, heaving a vast sigh of relief, stood before them radiant in his new garment.

"That's more comfortable," he remarked. "It fits better than the old one, which was a little tight in places. I don't mind taking off the lower part; it is the head and back that give the most trouble. Now I shall have to dispose of my cast-off clothing, after which I shall go and get supper."

"How is that done?" asked Vi. "Jackie was telling Mr. Froggie, just now, that mother always gives his old clothes to little boys in the village."

"Indeed!" said Natterjack, in some surprise. "Mine is a much readier way. Watch me very closely, and you will see."

The children stood by, greatly interested. First of all he surveyed his worn-out skin with much satisfaction and some pride; then he calmly began to eat it, thrusting it into his capacious mouth with his paws and gulping as he did with the worm on a previous occasion.

Vi didn't like the idea at all.

"I think it a very horrid way of getting rid of your clothes," she said.

"Very likely," replied Natterjack, as he swallowed the last mouthful; "but we have always done so, and I see no reason for making a change in our habits."

"Well, you needn't get cross about it," said Jackie.

"I'm not," retorted Natterjack; "but I hate to be interrupted when I'm changing my clothes and getting rid of the old ones."

"Very well," said Vi; "we'll leave you. I hope your old suit won't disagree with you. Good afternoon, Mr. Natterjack."

"Of course it won't," he answered airily. "Now, if it were green gooseberries, eh?"

This was a home-thrust.

"Good afternoon," said Jackie, hurriedly; and the children walked off towards the house, feeling that the toad had secured the last word, while Natterjack hurried away to join his companions.

\* \* \* \* \*

The next day Lemna had much in store for her visitors.

"I am going to explain to you the secret of the insect world," she said; "and then you will be able to watch more closely the changes which are about to take place around you; for, you must remember, the pond is only just bursting into life after its winter sleep."

"But, Lemna," said Vi, "how ever can insects live in the pond? I thought they lived in the air."

"They do both, Vi," replied Lemna. "Many of the most beautiful—dragon-flies, for example—live entirely in water till they finally hatch out."

"What do you mean by that?" inquired Jackie.

"Do they hatch out of eggs, like chickens?"

"Not at all," replied Lemna. "Insects always go through three stages of existence: first, the larva; second, the pupa; and then the complete insect."

"I know!" cried Jackie, and his face brightened. "Like butterflies. First the caterpillar, then the chrysalis, and then the butterfly."

"Exactly," said Lemna. "Butterflies are insects, too."

Vi looked round at the weedy forest which enclosed them.

"I don't see any caterpillars here," she remarked.

"No," added Jackie; "and I don't see how they could breathe, either."

"And yet," said Lemna, "there are many around you. Of course, they are not a bit like the caterpillars you see on cabbages, or in the flower garden: everything in Nature is made to suit the place where it lives. The caterpillar is coloured to resemble the food on which it thrives, and pond caterpillars are just the same. They are provided with means of defence against their enemies, and also means of living; only I am sorry to say they are not vegetarians, like your friends in the garden. Most of them are very savage, and feed upon other animals. There is a constant struggle going on beneath the surface of the pond. It is a very jungle, filled with fierce beasts of prey whose one aim is to find some other creature who will serve as food."

Jackie was disposed to be thoughtful, and bring his logic to bear upon the question. Presently he asked, triumphantly:

"Then, how does anything live at all? If everything eats everything, there will be nothing left."

"And yet," replied Lemna, "there is plenty of everything. The reason is, that every frog, and every insect, lays so many eggs that it is impossible for all to perish. As I told you, each frog and toad lays many thousand eggs, yet only a few hundred frogs are hatched every year. Look," she continued, pointing to a very tiny, transparent, balloon-shaped creature who was floating along; "that is called Cyclops, because he is supposed to have only one eye, like the giant you have heard of."

Jackie nodded approval; he was devoted to giants.

"Well, that tiny creature lays its eggs eight times during the year—about forty eggs each time. How many eggs does it lay in a year?"

Vi tightly shut her eyes in order to perform this mathematical problem.

"Eight times nought is nought," she murmured; "eight times four is thirty-two. Three hundred and twenty eggs," she exclaimed.

"That's not many," said Jackie, scornfully.

"Indeed!" replied Lemna. "But each of the forty eggs she lays, hatches and lays eggs; until at last, if every cyclops' egg were to hatch and live, at the end of summer there would be four thousand millions of tiny cyclops sailing about in the pond."

Vi's eyes opened very wide.

"It's like the nails in the horse's shoes," she said.

"Yes," continued Lemna. "You see what a tiny thing the cyclops is, don't you? Ten of them, placed side by side, measure one inch—just as wide as a half-penny. Well, if all the members of the family of one cyclops were laid in a row, they would measure over six thousand miles; or, spread out on the ground, they would cover rather more than half an acre; or,

piled up like a haystack, they would make a heap twenty feet long, ten feet high, and ten feet broad."

"I can't think so much," said Vi, shaking her head. "It confuses me."

"But, Lemna," said Jackie, who had again been thoughtful, "that is only one cyclops. How many are there in the pond now?"

"Several thousand," said she, laughing. "So now, Jackie, you can work out what the number of cyclops will amount to in this year."

"I give it up," he said. "But surely that is enough to feed all the animals in the pond?"

"Oh, no," said Lemna. "As I told you before, every insect, when it is a larva, has to eat; that is the one and only thing it has to think about—except, of course, hiding from its enemies. Water-insects, of all others, want the most food when they are larvæ. And now I am going to show you one in particular who is a terror to all the others, and almost as much dreaded as the ogre beetle—that is, Master Dragon-fly."

"Oh, I do want to see a baby dragon-fly," cried Vi, delighted. "How pretty it must be! You remember them last year, don't you, Jackie?"

"Rather!" replied her brother; "and what fun we had in catching them;" and his mind wandered to one or two damaged and faded specimens, the results of his prowess.

"Come, then, and you shall see him," said Lemna, "but I'm afraid you'll be terribly disappointed."

She led the way to a thickly-tangled corner of her aquatic garden, and gently pushed aside the waving tendrils of the plants.

"Oh!" said Vi, very crestfallen, "what a horrid thing!"

There it lay—the future glorious, soaring dragon-fly, who was soon to leave his leafy seclusion to dart, with

bright metallic body and glistening transparent wings, hither and thither in the blazing sun. Could so foul-looking a creature ever develop into so glorious an insect? There it lay—a dirty grey, torpid, sprawling body, mounted on six spiny, useless-looking legs, covered with mud, grovelling in it; a fat, bloated head, with large, protruding eyes, and two short antennæ, or “feelers,” as Jackie called them. For a moment it moved clumsily, as if annoyed at being disturbed. Then the large eyes glistened, and it crept stealthily, with a cat-like movement, towards a merry little water-flea.

Lemna pointed to it, and whispered :

“Now, children, watch it very closely, and you will be surprised at the way in which he catches his food.”

“Does he rush at it?” asked Jackie.

“No,” replied Lemna.

“Does he seize it with his claws?” asked Vi.

“No,” repeated Lemna.

“Then however will he manage?”

The whole skin of the animal’s face suddenly seemed to fall away, and a long claw shot out and seized the flea, gripping it tightly and drawing it steadily towards its mouth.

“Oh!” said Jackie, “it’s got a claw like a lobster.”

Master Dragon-fly greedily devoured his morsel, and then sank to rest in the mud.

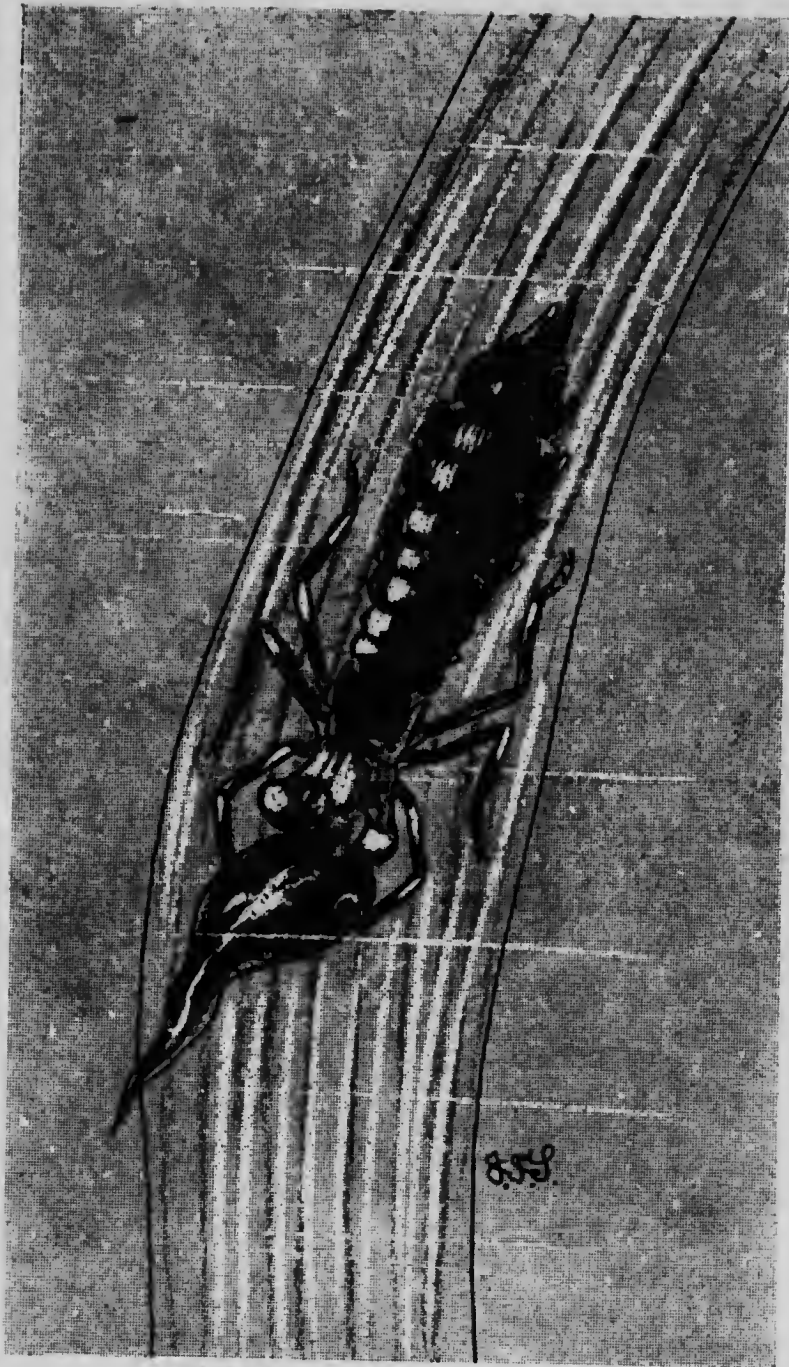
“But,” said Vi, “the claw has gone.”

“No, it hasn’t,” said Jackie; “it’s there, but he has tucked it away somehow.”

Lemna, who was much amused at these observations, said :

“Jackie is right. The claw, as you call it, is tucked away; only it is not a claw, but a long lower lip. Look again, and you will see it folded over his face like a mask.”





MASTER DRAGON-FLY ENJOYS A TADPOLE.



They closely examined the curious insect. A perfect mask shielded its face, but left the watchful eyes exposed, and could be shot forward to grip its prey with deadly effect.

"I don't think him at all nice," said Vi.

"Wait till you see him in his summer dress and flying," replied Lemna. "He is rather an ugly duckling, just now."

"But, Lemna," said Jackie, "how does he get air? He seems quite happy here, and doesn't help himself to any of the bubbles. He looks far too lazy to go up to the surface to breathe, like the ogre."

"He is one of the many fish-like animals who get their air from the water," replied Lemna. "Still, he is not as lazy as you think; he can soon dart out of harm's way. Look," she continued, pointing upwards, "here comes the ogre. He would find Master Dragon-fly a very toothsome morsel."

The children saw the dark, boat-like form of the ogre darting downwards, clinging to the weeds as he came nearer and nearer to stealthy Master Dragon-fly. But the large eyes of the latter were peering from behind the mask and saw the danger. He curled his body slightly, like a lobster, and—very much in the same way—shot backwards into a still thicker tangle of weeds.

"However did he do that?" inquired Jackie. "He never moved his tail at all."

The ogre, leaving his hold on the weeds, shot upwards.

"I'm so glad," said Vi, "that he has been disappointed—nasty, greedy thing!"

"Well," said Lemna, "isn't Master Dragon-fly just as greedy?"

"Yes," returned Vi, with some hesitation, "and I don't like either."

"You were asking," said Lemna, turning to Jackie,

"How it was that Master Dragon-fly could shoot himself backwards so quickly."

"Yes," he replied.

"Well," continued Lemna, "you know how a gun jumps back when you shoot it off?"

"Rather!" said Jackie. "I've got a little brass cannon, and Uncle Jack gave me some powder for it. Well, when I shot it off, it jumped right back, ever so far, and Miss Forman was cross about it for days."

"Then, Jackie," said Lemna, "Master Dragon-fly is just like your gun. He fills himself with water, and



THREE FLUFFY HAIRS STICKING OUT OF A HOLE.

squirts it out very hard, and that drives him backwards at once."

"Clever chap, at all events," said Jackie. "But does he turn into a chrysalis, the same as a caterpillar?"

"Not exactly," replied Lemna. "He changes his skin several times, and is able to walk about and eat, just as usual. However, you will see all that for yourselves when the time comes."

"Are all the insects down here so horrid?" inquired Vi.

"Oh, no," said Lemna. "Some are very gentle, modest folk; but, as a rule, they have to hide away, or they would be eaten. I will show you one more very

interesting larva before you go, and that is little Miss May-fly. She has been here for two years, very nearly, and is coming out at the great May-fly Dance this year."

"Two years!" repeated Vi. "Does she take two years to grow up?"

"Yes," replied Lemna; "and not only that, but she seldom lives more than a few hours after she has left the pond."

"What a lot of bother for nothing! Why can't she live longer?"

"For many reasons," said Lemna. "The chief one is, that she has no mouth."

"How silly!" said Vi. "I should have thought, after taking all that time, she would have remembered that a mouth is necessary."

"She makes up for it now," said Lemna, brushing aside some of the mud.

The children stooped down and examined with interest three fluffy hairs sticking out of a hole. Another, close by, showed a funny head, and two eager, beady eyes.

"There she is," continued Lemna. "She burrows into the soft mud, you see, and leaves her tail sticking out at one hole and her head at another."

"Why?" asked Jackie. "What's the good of leaving her tail poking out in that way?"

"Because those little hairs we have just called her tail are not a tail at all," said Lemna. "They are breathing tubes—tiny little pipes which suck in the water, as a fish does with its mouth."

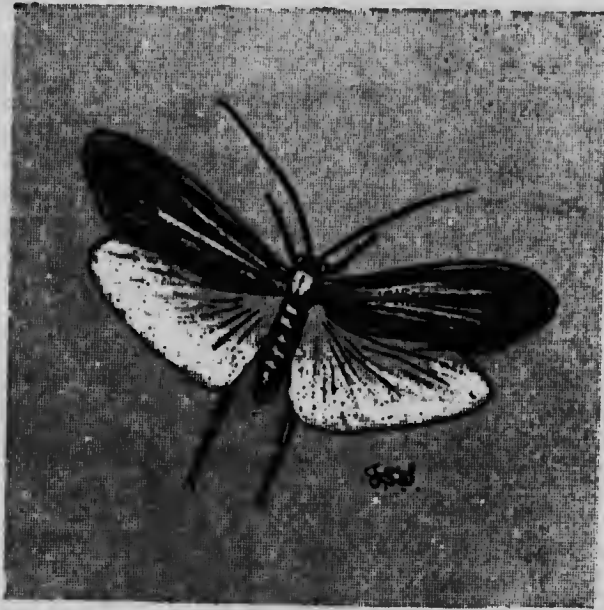
"But how can she get anything to eat, if she is always in that hole?" asked Vi.

"She is living in the midst of food," replied Lemna. "She eats mud and vegetable matter, all together. You see her forelegs—they serve her purpose as a spade, to

dig. Poor thing! Her body is very soft, so she has to lie hidden, for all the hungry beetles are on the lookout for her as a great delicacy. The water-boatman would enjoy her immensely."

"Is that the ogre?" asked Vi.

"No," answered Lemna. "The water-boatman is



"HER FIRST COUSIN, THE CADDIS-FLY."

another person altogether. You shall see him by-and-by."

"It does seem a shame that she can't protect herself better," said Vi.

"Well," continued Lemna, "her first cousins, the caddis-flies, can do so. But it is getting late now, and I must not keep you any longer. To-morrow I am going to show you the most gentle of all the pond beetles. I know you will admire him. So good-bye, and remember to be here in good time."

She led the children to the surface, where Froggie was comfortably floating in the water.

"Hullo!" he said, "I thought you were never coming. Give me your hands."

They did so, and soon stood on dry land once more.

Vi gave a backward glance at the pond.

"Well, Jackie," said she, "I never knew that there were such thousands of animals down here; though they all seem to think of nothing but eating one another up."

"Perhaps, after all, it is a good thing," replied Jackie.

"Remember what Lemna told us about the tiny cyclops and its millions of eggs. Besides, why shouldn't they eat? I know I'm jolly hungry, and I hope there's a nice egg for my tea. Come on."

## CHAPTER VII

### TADPOLES

**M**ARCH, with its windy days, was a month of the past. Coming in like a lion, it had found the pond still and desolate ; going out like a lamb, it left the watery little kingdom waking fast and fresh from its winter sleep and pulsing with life.

Jackie and Vi had welcomed the coming of April, for the advent of summer meant more hours in the open air and less of the discipline of the schoolroom. Consequently, their spirits rose with the approach of long summer afternoons, and the wonders in store in the cool, shady retreat of the Fairy Lemna.

"Any way," said Jackie, referring to the pond, "she"—meaning Miss Forman—"won't be able to find us there. She doesn't know Lemna, or Mr. Natterjack, or Froggie, and I don't think she'd care to jump into the pond to look for us."

"How funny she would look floundering among the duckweed," said Vi, laughing heartily ; "and what a fuss there would be down there, if she splashed in suddenly to take us home."

"Come on," said Jackie. "Lemna's going to show us another beetle to-day, she said—a gentle, kind beetle."

"That will be something new, won't it?" said Vi. "Oh, Jackie, it does seem horrid to think of all those

animals eating one another—and the poor little frogs' eggs, too!"

"You ate two hens' eggs for tea last night, at all events," said Jackie, "and didn't seem to mind doing it, either."

"So did you," said Vi.

"Well," continued Jackie, "you'd make a nice fuss if I were to call you horrid. And what about the



THE FROG-SPAWN HAD NOW ALL RISEN TO THE SURFACE.

chicken you had for dinner, and the bacon for breakfast? Don't you eat other animals, as well as the pond people?"

"I suppose I do," replied Vi; "only it seems different, somehow."

"So it does," agreed Jackie. "Perhaps it's because we are too lazy to catch and kill them for ourselves, but leave that to other people."



They had reached the pond, and were gazing at its still surface, now thickly covered with a green mantle of aquatic plants. In and out, and round about, gambolled the merry whirligigs, chasing one another, their blue-black bodies giving back the glint of the sunbeams which played upon them, diving below and coming up again, for all the world like a party of boys released from school. Comfortable, fat frogs floated placidly, keeping their noses well above water.

"Isn't it lovely?" exclaimed Vi. "Oh, look, Jackie! Something has just come up to the top."

"One of the ogre beetles," said Jackie, in an awe-struck voice. "See, he is filling his horny wing-cases with air."

The frog-spawn had now all risen to the surface, and floated lazily in the warm sunshine which daily gave it life.

"How are you?" said the well-known voice of Froggie. "You are lucky to come on such a day as this. I have just been to the nursery, and shall be surprised if you do not see some of the tadpoles hatched."

"What fun!" said Vi, clapping her hands. "We mustn't waste a minute, must we, Jackie?"

"Then in with you both," said Froggie. "Lemna is waiting, I know."

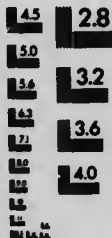
Oh, the glory of the watery seclusion! It was even lovelier than before. The green light was more refreshing, and the crystal air-bubbles shone again as it poured upon them. Truly the sun was a great and subtle magician, who could call forth all animated Nature with a glance, cause it to spring into being with his smiles, and mourn and die away when his face was hidden. Lemna smiled as the children looked around them, seeing afresh, as they did at each visit, some subtle change in her realm.





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"Yes," she said, as if in answer to their unspoken comments, "the pond is again quickening into life very fast, and soon the plants will begin to put forth their flowers, to lure the insects. Each leaf will then become a perch for some one of my subjects, for many of them leave the water in the summer months, to live in the air, after their long life here. The sun seems to draw them upwards for their brief, joyful existence, and then they disappear and are seen no more. But they leave me their store of eggs—tiny eggs—which carry on the race in the coming year."

"I was going to ask you a question," said Jackie.

"What is it?" inquired Lemna. "You know I am always ready to answer."

"Why does the ogre have wings, when he lives in the water?" he inquired. "It's like a cow having fins."

"But he doesn't always live in water," replied Lemna. "He often goes for a fly in the evening, and enjoys it immensely. Sometimes he flies right away, and never returns."

"What becomes of him?" asked Vi. "Does he get eaten up by birds?"

"Not always. Often he finds another pond, and settles down there."

Vi looked rather disappointed, and remarked:

"That's not very nice for the animals in the other pond."

Jackie laughed.

"You forget," he said; "he may get eaten there, by his brother ogres, or he might marry and get eaten by his wife."

"So he might," said Vi, relieved.

"Now," resumed Lemna, "I'm going to show you a new beetle altogether—such a big one. He is quite gentle, and never eats anybody."



"HE IS CALLED THE SILVER BEETLE."

"Then," said Vi, with animation, "please let me see him at once."

"In a minute," said Lemna. "He is coming down now."

As she spoke, a brilliant silver flash passed above them and rested for a moment upon the weeds. As it did so the silver died away, and they saw a very large, brownish-black beetle clinging to a tuft of vernal starwort.

"Oh!" said Jackie, "what a whopper!"—Jackie's language was often more expressive than polite.

"Yes," replied Lemna; "it is, as you say, a 'whopper'—one of the largest beetles in England. In fact, there is only one larger, and that is the stag beetle."

"How lovely he is," said Vi. "What is his name?"

"He is called the Silver Beetle" (*Hydrophilus pisceus*), replied Lemna.

"Why," said Jackie, "he's brown. I don't see any silver about him."

Just then the beetle in question turned, and they saw that the whole of his chest was covered with a big, silver bubble of air.

"Now, do you understand?" responded Lemna. "He carries his supply of air on his chest."

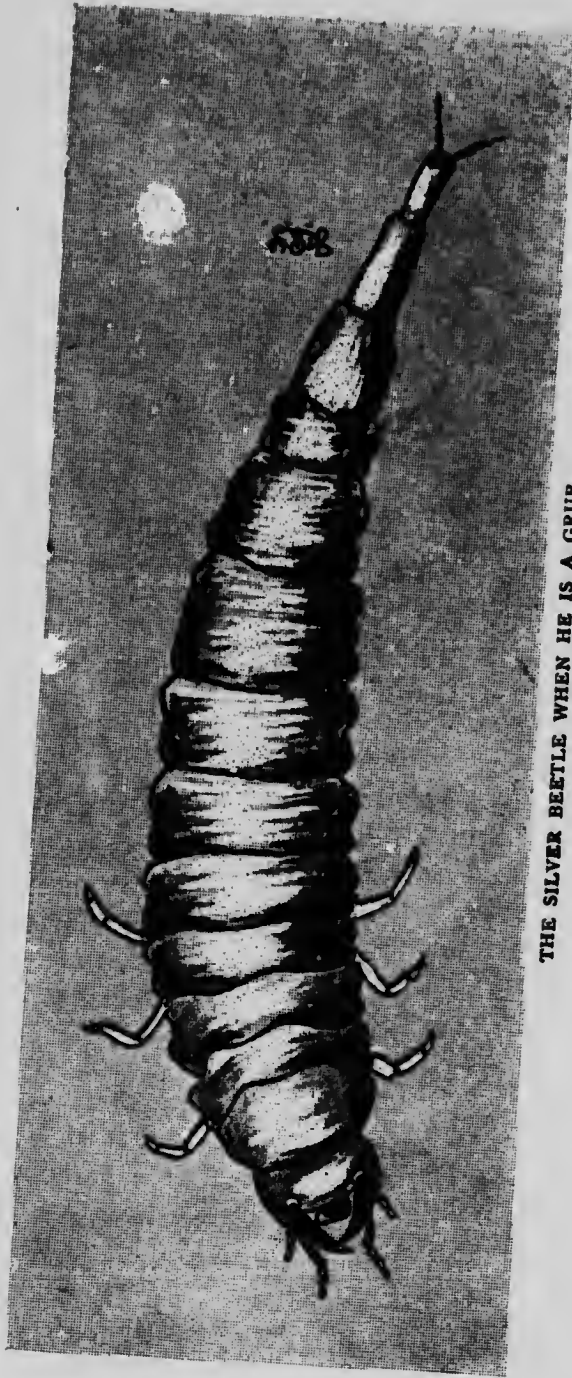
"Oh, Lemna!" ejaculated Vi, "he is beautiful! But what is he doing on the starwort?"

"Feeding upon it," she replied. "He is a strict vegetarian, and eats nothing else."

"I like him," said Vi, with confidence. "He's not so cruel as the others."

"But," said Lemna, "when he is a grub he is just as bad, and will attack even a mussel and eat it."

"I can't understand that at all," said Vi, shaking her head. "Why should he want to eat others when he is young, and not when he is old?"



THE SILVER BEETLE WHEN HE IS A GRUB.

"On the other hand," said Lemna, "you will see some young creatures who eat weed when they are in one stage, and insects when they grow up. It is the law of Nature, my child, and we cannot alter it without great risk."

"But, Lemna," said Jackie, who had been anxiously examining the silver beetle, "how does he manage to carry all that air upon him? Why doesn't it float off, up to the surface? If I were to dive into water I shouldn't carry a bubble of air on my chest. I wish I could, for it would be awful fun."

"That's what I was going to tell you," replied Lemna. "Look at his beautiful yellow plush waistcoat."

The children admiringly examined the silver beetle's chest, clothed with a thick, downy covering which seemed to hold the air and prevent the water from getting into it.

"You see," she continued, "his chest is overspread with tiny hairs which are almost waterproof, and so he carries his supply about with him. When he has breathed it all in, he goes up for more."

"But it is nowhere near his mouth," urged Jackie.

"My dear little boy," said Lemna, "you have yet to learn that very few insects, grubs, or spiders ever do breathe through their mouths. Don't you remember Miss May-fly, and the breathing tubes in her tail?"

"Still, it does seem funny," said Vi, "to talk of anything that doesn't breathe through its nose or mouth."

"But," replied Lemna, "the silver beetle has no nose, and its mouth is always occupied in eating. There, it is going to the surface again for more air."

Slowly the silver beetle detached itself from the starwort and floated gently upwards, while Jackie watched its movements with great interest.

"Why, Lemna," he said, "it doesn't swim a bit like

the ogre. *He* uses his legs like oars, but the silver beetle swims just as if he were walking in the water."

"Just like a dog," added Vi. "He's a dear creature, and I like him very much indeed."

"The poor fellow has had a hard life," continued Lemna. "It was the fashion, some time ago, for people to keep what were called aquaria—little glass boxes full of water, which were almost as cruel as your bowl of goldfish; and, in consequence of his mild disposition, he was eagerly captured by those who made a trade of selling these things, and now there are very few left. You see, they couldn't wait until he and his wife had arranged for their family to be hatched, and so very few silver beetles exist nowadays."

"Poor creature!" said Vi. "How horrid of them! If it had been the ogre, I shouldn't be a bit sorry."

Jackie suddenly brightened.

"Oh, yes!" he exclaimed. "I knew I had forgotten something. Mr. Froggie told us, as we came along to-day, that very likely there would be some baby tadpoles hatched this afternoon."

"Did he?" replied Lemna. "I daresay he is right. The warm weather should have helped them greatly. Shall we go and see?"

"Oh, please," said Vi.

"Come, then," she said; and taking them by the hand, they rose gently to the surface, where the frog spawn was floating.

What a change had come over the little black dots in the jelly balls since the children had first seen them! First of all the black dot had stretched; then its shape took something of the appearance of a tiny dumb-bell; but now they could see the black dot, or yolk, had changed into a live tadpole, which kicked and wriggled with tremendous activity in its jelly-like sack.



"Look, Vi," said Jackie. "Do you see them? They are simply longing to get out of their shells."

"Dear little fellows!" said Vi, highly delighted. "How they are jumping about! Won't they ever be able to get out?"

"Oh, yes," said Lemna, "they will soon find their way, and then you will see them begin the first stage of their amphibian existence."

"What a long word!" said Vi, who had forgotten a previous conversation with Natterjack and Froggie. "Amphibian! What does it mean?"

"I know," said Jackie, and he smiled with a sense of superior information. "They are things that live on land as well as in water."

"No," replied Lemna, "you're wrong."

"Well, that's what Uncle Jack said," argued Jackie.

"I fear he didn't make his meaning understood," replied Lemna.

"Well, a seal is an amphibian," said Jackie.

"No, it isn't," said Lemna.

Jackie was becoming nettled.

"You shouldn't contradict," he retorted—"it's rude."

"But," said Vi, "a seal lives on land as well as in the water."

"Yes," replied Lemna, "and so do water-rats, and otters, and many birds; but they are not amphibians."

"Then what is an amphibian?" asked Jackie, peevishly. "I want to know what it is, not what it is not."

"Patience, Jackie," said Lemna, with a warning smile. "An amphibian must, as you say, spend a portion of its life in water; but that is not all. It must first of all breathe in water, like a fish, and then, when grown up, it must breathe just as you do, through its mouth and nose, and have lungs like yours, not gills

like a fish, as it had at first. Do you understand me? The amphibian begins life in its egg, is hatched into a fish-like creature, which changes itself into a perfect land-going animal, and throws aside all its fish-like nature."

"It sounds very wonderful," said Vi; "but please, Lemna, are tadpoles quite like fish? They don't look like them."

At this moment a triumphant tadpole burst its sack, and began to wriggle and sport about his empty home.

"Look," said Jackie, "there's one out already."

"There will soon be more," said Lemna. "If we watch closely we shall see them."

The hatching of the first egg was followed by that of many others, and very soon quite a little crowd of tadpoles was wriggling about in the water close to Lemna and the two children.

"I never knew they were such jolly little fellows," cried Vi, in delight. "See how lively they are, and how tiny."

"And how they crowd together on the leaves of the weeds," said Jackie. "Why, it's just like a Rugby scrimmage."

Jackie could not have chosen a more descriptive word. All the tadpoles were pressed together, and seemed to be hanging on to one leaf; others came, who pushed and wriggled, and pushed again, so as to get a good place. Vi was a little frightened.

"Are they fighting?" she inquired anxiously.

"Oh, no," said Lemna, with a smile; "they are just as full of fun as kittens, or tiny chicks; and they like to be sc. iable."

"I know what they look like," said Jackie; "a lot of puppies scrambling over a saucer of milk. I suppose they are eating something, aren't they?"

"No," replied Lemna; "nothing of the kind. Young tadpoles never eat for several days after they have left their eggs."

"How do you know that?" asked Jackie. "Perhaps they eat some of the little things we can't see, but which live in the water: I mean the curly things that Uncle Jack showed us in his microscope."

"I tell you they do not eat," repeated Lemna; "and for the simple reason, Jackie, that they have no mouths."

"Poor things!" said Vi. "Don't they starve?"

"No," replied Lemna; "because their mouths are now beginning to grow. In a few days you will see that they will be quite ready to use them, and when they do begin they are positively ravenous."

Jackie was unbelieving, and pointed to the pushing, struggling knot of tadpoles, all fighting for a good place on the leaf.

"Then," said he, "if they have no mouths, how do they hang on to the leaf? They have no legs, and must fasten on somehow."

"Now that is a very sensible question, Jackie," said Lemna. "It is true they have no mouths as yet, but they have a sucker, by which they hold on to the leaf till they have grown a little and are more able to take care of themselves."

"I know," said Jackie. "Like those bits of leather on a string, that you put in water and squeeze on to stones."

"Exactly," said Lemna; "they hang on to the leaves like that."

"Lemna," said Vi, who was much interested in the constant turmoil of the tadpole colony; "what are those funny tufts on their heads, like a sort of fern?"

"Those are their 'baby' gills," she replied, "which

help them to breathe. The water passes through them, and they take up the air from it."

"But you said he was like a fish!" cried Jackie, triumphantly — he was very sharp this afternoon. "Fishes never have tufts like t' . . ."

"Wait awhile, Jackie," said Lemna, "and you will learn more about him. I am not going to explain that just yet."

Jackie was not to be satisfied with this answer.

"All right," he said; "I will wait. But I don't think a tadpole looks a bit like a fish."

"Why not?" asked Lemna, who was pleased to see him take a really intelligent interest in the little creatures.

"Well," he replied, "they haven't got scales."

"True," said Lemna.

"For him," suggested Vi.



THE TADPOLES SEEMED TO BE HANGING ON TO ONE LEAF.

"Is that all?" asked Lemna.

"Yes," replied Jackie; "but that's enough, isn't it?"

"Not quite. You have argued well, but, although he has no scales, the tadpole is a cold-blooded animal, with a fish's heart. He has no fins, but he has a beautiful tail, as you see, which answers the same purpose; and he breathes through gills. Another thing I will tell you about him, although you can't see it: he has what is known as a 'swimming bladder,' which all fish have, by means of which he goes up and down in the water."

Jackie, still striving to argue with Lemna, replied:

"If he is cold-blooded, isn't he a reptile? Miss Forman told us that reptiles are cold-blooded animals—snakes and lizards, you know," he added, vaguely.

"Yes," said Lemna, smiling; "people used to say that frogs and toads—and tadpoles, of course—were reptiles; but they didn't know. There is very little in common between a dry, hard, scaly lizard, with its dusty skin, and a soft, moist frog, who breathes almost as well through his skin as he does with his lungs. No, Jackie; you have learned your lessons well, but you must agree with me that Mr. Froggie is not much like a reptile, who, after all, is never an amphibian. People thought that, because reptiles and frogs are cold-blooded, they all belong to the same family; but you can see the difference now, can't you?"

"Yes," said Jackie, "I see what you mean, and I'll tell Miss Forman about it, too."

"Poor Miss Forman!" said Lemna: "I fear she will have to answer a lot of questions. And now," she continued, "that you have seen the frogs, there are the newts."

"Oh!" said Vi; "but they are horrid animals, aren't they?"

"Yes," added Jackie. "Old Charles told me about them. He said they could spit fire;" and his eyes opened wide as he delivered this awe-inspiring piece of information.

"And if horses drink from a pond where newts live, they all die," continued Vi, on whom old Charles's stories had made lasting impression.

"And they have poisonous fangs like an adder, and their bite is fatal," concluded Jackie.

"Indeed!" said Lemna, in some surprise.

"Oh," said Vi, shuddering, "I don't want to see them. They might bite me."

"No, they won't," replied Lemna; "you can make your minds quite easy on that point. The newt is not able to spit fire, he has no poisonous fangs, and as to the horses dying—don't you know that water where frogs and newts live must always be pure and safe; otherwise, how could they live in it? Besides," she added, "the newts who come here are very lovely; they are the Great Warty Newt, the most beautiful of their kind in England. But you must wait to see them until to-morrow, I fear; it is time for you to go. Mr. Froggie will wonder what has become of you. Good-bye."

So, with a last look at the happy little crowd of tadpoles, the children caught the broad hand of Froggie, who was waiting, and were quickly landed on the shore once again, when they heard the booming of the tea-gong.

"Hallo!" said Jackie; "it's tea-time. Come on, or we shall be late, and there'll be a row." And, without even waiting to thank Froggie for his kind offices, they rushed homewards, arriving just as Miss Forman appeared at the door to see what had become of her charges.

## CHAPTER VIII

### THE GREAT WARTY NEWT

VI was just a little timid about newts as she and Jackie went down to the pond. Ancient superstitions had taken root in her mind, and were somewhat difficult to uproot.

"Suppose, Jackie," she hazarded, "that Lemna had made a mistake?"

Jackie openly derided.

"Don't be a little silly," he said. "As if a fairy like that ever made a mistake! You've trusted her up to now, and nothing has happened."

Vi gave a sigh of resignation, but Jackie's logic had not convinced her.

"Hullo!" said Mr. Natterjack, coming towards them in all the glory of his new suit, as they approached the pond. "I'm glad to see you. Hope you didn't think me rude the other day when I was changing my clothes, but it is always nervous and tiresome work, you know. I'm now, you see, as gay and fresh as can be;" and he swelled his fat body till the skin was almost transparent.

"You are like the 'frog and the ox,'" said Jackie.

"What's that?" asked Natterjack.

"Don't you know?" replied Jackie, who was well acquainted with his Æsop's Fables. "Well, once upon a time a frog saw an ox, and thought how nice it would feel to be as big as he was——"



"Big as who was?" said Natterjack. "Of course the frog was as big as he needed to be, and couldn't be any other size."

"You don't understand," interrupted Vi. "The frog wanted to be as big as the ox."

"Why couldn't you say so at first?" said Natterjack.

"Don't interrupt," said Jackie; "it's very rude. Well, he began to blow himself out—as you did just now—and went on getting bigger and bigger, and then he burst——"

"Just like a frog!" said Natterjack. "They are silly things! But you don't believe all that nonsense, do you?"

"Why not?" asked Vi.

"Because no sensible frog would ever want to be as big as an ox. What good would it do him? How would he be able to hide, or get into a nice, damp place to rest, if he were that size? If that is the sort of natural history you learn, I don't think much of it."

Vi had a sudden inspiration.

"Oh, please, Mr. Natterjack," she said, "is it quite safe to see the newts? They don't bite, or spit fire, do they?"

"Good gracious, child!" exclaimed Natterjack, much amused; "who has been telling you all that nonsense? No; they are first cousins of mine, and I know them well. They are quite harmless—more so than I am."

"But you never hurt people, I hope!" said Vi, remembering that she had heard things about toads, too.

"Well," said Natterjack, "I can be unpleasant when I like."

"How?" asked Jackie, deeply interested.

"If a dog were to catch hold of me," replied Natterjack, "he wouldn't want to do so again. Nothing



ever tries to bite me twice. But why do you want to know about newts ?”

“ We are going to see them to-day,” said Jackie—  
“ that’s all.”

“ Then I’m sure you need not be afraid,” returned Natterjack, reassuringly. “ They will be very busy, and I think you will be surprised at what you see.”

“ Oh, yes,” continued Vi; “ and the dear little tadpoles are coming out of their jelly shells.”

“ Indeed !” replied Natterjack, with some interest. “ I’m glad to hear it ; because now there will be a chance for us. I was wondering when we shall be able to begin our bathing.”

“ Do you go into the water, too ?” asked Vi.

“ Didn’t I tell you so before ?” said Natterjack.

“ Yes ; Mrs. Natterjack is only waiting till the frogs and newts have finished, and then she will lay her eggs.”

“ That will be nice,” said Vi.

“ And now,” said their friend, “ I must go for a walk and see about luncheon, for there is a grand toads’ concert to-night, and we are all going to sing. Good-bye,” and, croaking in his peculiar, drawling manner, he was soon lost in the grass.

“ Well,” remarked Vi, “ I am rather happier about those newts. I don’t think I shall mind seeing them, after what he has said.”

“ Of course not,” said Mr. Froggie, who had arrived unseen. “ We are all relations—toads, newts, and frogs ; and we are all amphibians—the only ones there are in this country.”

“ But newts have tails,” said Jackie.

“ That doesn’t matter,” replied Froggie. “ The only real difference between a newt tadpole and a frog tadpole is that the newt never loses its tail. I think it rather clever of us to do so, otherwise it would be

horribly in the way when we came to walk about with it."

"But newts never walk about," said Vi. "They always live in the water, don't they?"

"Newts—always—live—in—water?" repeated Froggie, in an astonished voice, and with very large eyes of surprise. "Not a bit of it. Newts very seldom live in water; they only go there to lay their eggs, as we do, and as Mr. Natterjack's wife will, when the time comes. Oh dear no! Why, the young newts don't go near water for three years, at least!"

"I tell you what it is, Vi," remarked Jackie; "we have been told a whole lot of crammers about newts, and the sooner we begin to see for ourselves, and not trust to others, the better."

"Now that is very sensible of you," said Froggie. "Go and see for yourselves. You know Lemna is waiting, and I hope you'll be pleased with your visit;" and, with that, they plunged into the water.

As usual, the pond-folk were all very busy. The children seemed to be in the heart of a big, bustling city with which they were gradually growing familiar. They could recognise the boat-shaped ogre darting about, seizing and devouring all that came in his way; the tiny water-shrimps jerked, now here, now there, hunting for food as if they were dogs let loose in a coppice. Molly the Charwoman went on steadily cleaning, ever cleaning—as did *Planorbis*, the catherine-wheel shell. The whirligigs dived suddenly, then, seeing some lurking enemy in the weeds, sprang upwards like lightning, to join their circling comrades on the surface. Young Master Dragon-fly shot out his mask from the tangled weeds; the tadpoles struggled and pushed as they clung to the leaves; and the placid cyclops, mother of many millions, floated gently for awhile—until she was devoured. The huge silver beetle—the docile

pond-elephant—swam his dog-like course, keeping cleverly in shelter lest he should be discovered, attacked, and overpowered by his many enemies. Besides these were hundreds of other strange beasts, swimming and crawling, whose names they had yet to learn.

In the midst of all stood Lemna, the Queen, who smiled as she saw the children gladly recognise the creatures with whom they were already familiar.

"I see," she remarked, "that you have begun to enter into the spirit of Pondland, and to appreciate its marvels."

"Oh, yes," replied Vi. "I feel every day that I am learning more and more about it; and please, Lemna, I've made up my mind not to be afraid of newts."

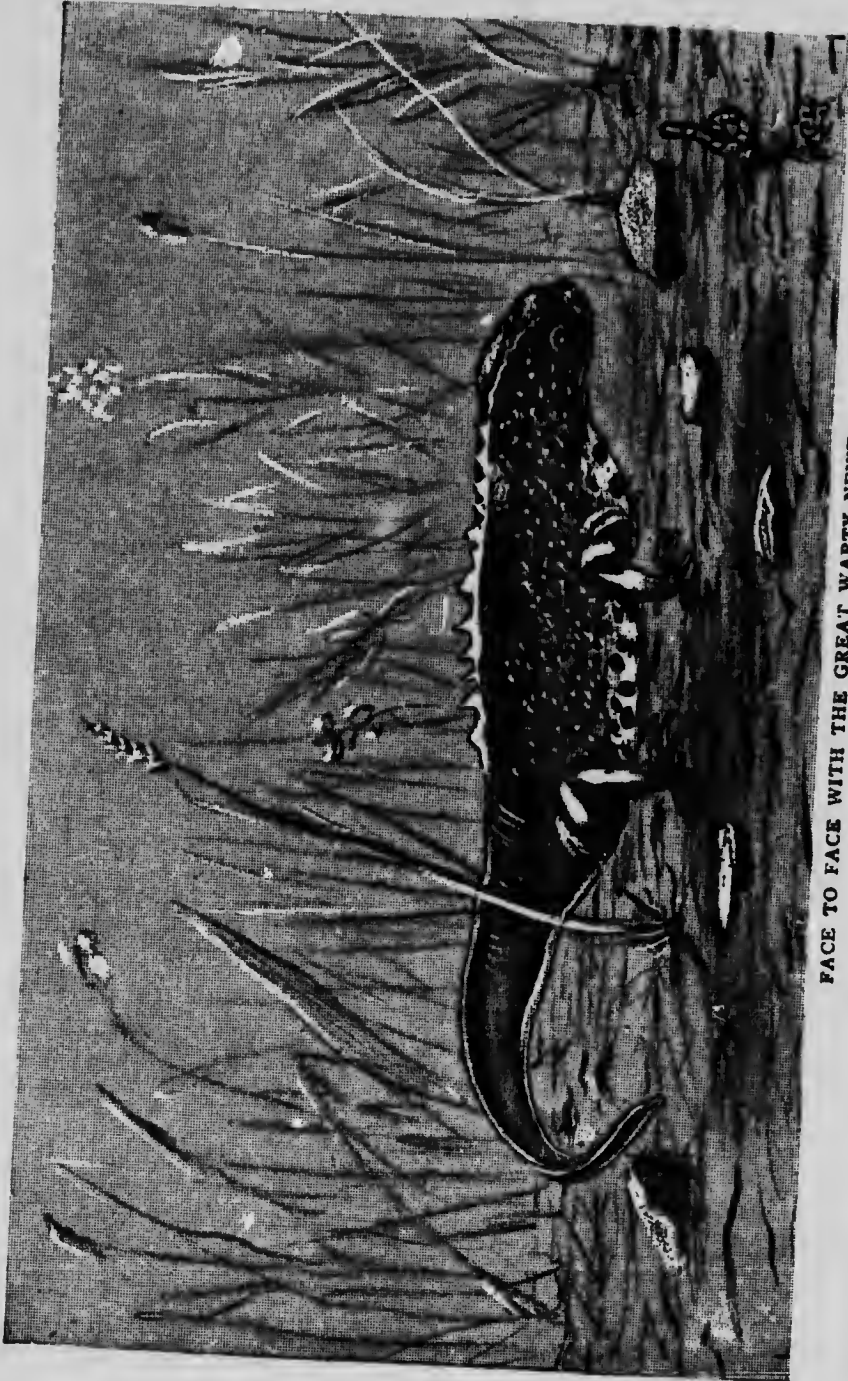
"That's right," said the fairy; "you should learn to love all creatures, great and small."

"Mr. Froggie has been telling us," said Jackie, "that, after all, newts are only first cousins to himself and Mr. Natterjack."

"That is so," agreed Lemna; "but here they are in the flesh."

A dark shadow slowly glided above them and gracefully sank to the bottom of the pond, followed by another, and the children found themselves face to face with the Great Warty Newt.

They were, indeed, magnificent creatures, though rather uncanny at first sight, with their slender, blackish bodies, long, waving tails—striped with brilliant silver-blue on either side—and slightly mottled, orange chests. But what struck Jackie most of all was the delicate, transparent, notched crest, tipped with crimson, which rose from the back of the smaller animal. Their skin, almost black, was covered with warty lumps, not unlike those of Natterjack. Jackie was deeply interested.



FACE TO FACE WITH THE GREAT WARTY NEWT.

"Why has that one got that thing on his back?" he demanded.

"That one,' as you call him, Jackie," responded Lemna, "is Mr. Newt, and he has on his spring dress, which is always smart. 'That thing' is his crest. See how gracefully it waves in the water, like delicate seaweed. He is quite a peacock, isn't he, in his gay apparel?"

"Yes," said Vi; "but he is ever so much smaller than the other."

"The other is his wife, you see," Lemna informed her. "She is much longer, but not so gay. In my kingdom the gentlemen are always smarter and generally smaller than the ladies."

"How funny!" said Jackie. "With us, the ladies wear fine clothes, and the gentlemen just have to be content with anything."

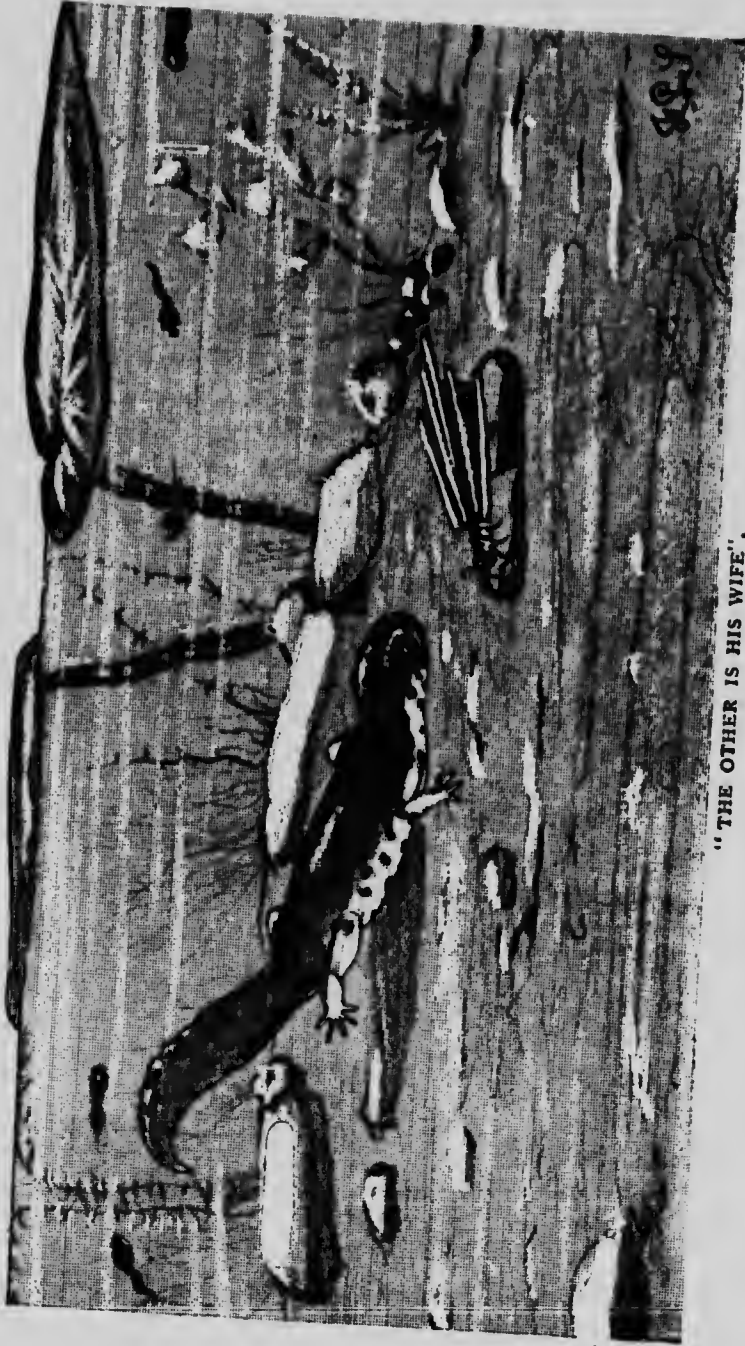
"Ah!" replied Lemna. "It is very hard indeed to account for what man does; he seems to have entirely broken away from the laws of Nature, to live a life of his own making."

The two newts, lazily, but very gracefully, circled about them as they stood watching their movements. Now and then one or other of them would seize an insect as it passed and gulp it down; then, with a flick of its long, powerful tail, would rise to the surface to take a mouthful of air, and again plunge downward to resume its swim.

"How beautifully they move!" said Vi. "They just seem to glide about."

"Yes," replied Lemna; "and yet, this is the first time they have been in the water since they grew out of their tadpole state, and that was three years ago."

"There, now," said Jackie. "That's what Mr. Froggie told us. We always thought that newts lived in the water, and never left it."



"THE OTHER IS HIS WIFE".



"Oh, no," said Lemna; "they never come to the pond until three or four years after they have grown up, and after that they come down every year for a few months—from April till June. Then they go away again and live upon the land till the following year."

"But what becomes of them?" asked Vi. "We never see them."

"I suppose not," replied Lemna. "They generally live in families of ten or twelve, in some snug hole not far away, and only creep out at night to get their food. In the winter they sleep all the time. This is the newts' holiday, you see, and they thoroughly enjoy it."

"It must be like going to the seaside for them," said Jackie.

Mrs. Newt seemed more active than her husband. She was gently, and with great care, inspecting the leaves of the water-crowfoot. Presently she seized one of them with her hindlegs and began to curl it inwards towards the stem.

"What is she doing?" inquired Vi, noticing the ease with which she used her hind-paws.

"Hush!" said Lemna. "Don't disturb her; she is very busy. When she has finished we will go and see."

Mrs. Newt presently rose to the surface for air, and again descended and commenced upon another leaf, which she curled up in a similar manner.

"Come now," said Lemna, "and see what she has been doing."

Taking her hands, the two children gently rose with the fairy, and examined the leaves which had received so much attention at the hands—or, rather, legs—of the newt. The tip of each leaf had been curled backwards, until it had formed a kind of basket, inside which, hidden away, was a "jelly ball" egg, very like the

frog-spawn with which the children were already so familiar.

"Oh!" said Vi. "How clever! She is hiding away her eggs, so that the others shall not see them."

"That is the general idea," replied Lemna; "but I can't say that it is quite the right one, for the other animals know well enough where her eggs are to be found. Still, of course, out of sight is sometimes out of mind, and the temptation is not so great if they don't see them."

"But what animals eat them?" asked Jackie.

"It would be far easier to name the animals that do not," she replied, smiling. "Nearly every creature in Nature is fond of eggs — even little boys like to have them for tea; but the ogre is very partial to them, and eats as many as he can. So does the water-boatman—of whom I have told you. Then, Master Dragon-fly is on the lookout, and his deadly mask will spring out, seize and gobble one up very quickly. Worst of all is young Master Ogre—the



EGGS OF NEWT. THE TIP OF EACH LEAF HAD BEEN CURLED BACKWARDS.



ogre's little boy—who has been called the Water-tiger, because of his ferocity. All these are on the look-out, always."

"Then how is it that there are any newts at all, if every one eats up the eggs?" asked Jackie.

"For the same reason that I explained to you about the cyclops," replied Lemna. "Not one in a thousand of the eggs laid here by the amphibians lives to be a full-grown animal. Some are eaten before they are hatched, many are eaten as tadpoles, and even when they are matured there are enemies awaiting them."

"What enemies?" inquired Vi.

"Don't you remember the tale of 'Froggie who would a-woeing go'?" asked Lemna, smiling.

"What became of him?"

"I know," said Jackie: "'A lily-white duck came and swallowed him up.'"

"Exactly," replied Lemna; "and a like fate awaits many a poor froggie. He has another enemy, too, and that is the snake."

"How terrible!" said Vi, in an awestruck voice; and she shuddered.

Jackie had a certain lurking weakness for snakes; he had seen the boys of the village with them, and had wondered often at their greenish, glossy backs and glowing, golden heads.

"Does he eat frogs?" he asked, with great interest.

"Yes," replied Lemna; "to a hungry snake, a tender young frog is a very toothsome meal."

"I don't like it at all!" said Vi. "Everything seems wrong. All these creatures are born into the world, simply to be eaten up again."

"Yes," said Lemna; "but what would happen if they were not? Each frog and toad lays about nineteen thousand eggs. Fancy, what a plague of frogs there would be, if all hatched out and grew up!"



“ THE OGRE’S LITTLE BOY—CALLED THE WATER-TIGER.”

Remember, twelve frogs measure a vard—or rather more—in length, if they were to sit one behind another. So that, if each mother frog were to go for a walk with all her children, she would be at the head of a procession of more than a mile long. All these froggies would want food, and would eat up all the flies and worms. Then, what would happen? There would be no scavengers to clear away the dead animals, and the air would be poisoned; there would be no flowers, for there would be no insects to fertilise them; there would be no bees; there would be nothing but a land full of starving frogs. Think, too, of the next year: the nineteen thousand froggies would lay their eggs, and the tadpoles would hatch out; but there would be nothing for them to eat, and they would die. In short, the world would cease to be habitable. You must always remember that, Vi, when you see animals at work eating up one another. If they didn't, the 'balance of life' would be upset, and the whole world would suffer."

Jackie was very thoughtful.

"Just fancy!" he said: "our lives depend upon the appetite of the ogre and his companions. If he wasn't so hungry we shouldn't be able to live at all."

"And to think," continued Vi, "that we have been doing lessons for years, and have only just found it out."

## CHAPTER IX

### THE OGRE TAKES A FLY

A DAY of April showers followed, so Jackie and Vi were confined to the nursery, to find such amusement as their library afforded. They were naturally most anxious to pursue their studies in the direction of the pond and its inhabitants, but the books at their disposal did not seem to help them very much. They found that frogs, toads, and newts, were described as reptiles.

"Now that, we know, is all rot," said Jackie, who had been listening to Vi's somewhat disjointed perusal of the work in question.

"Of course it is," assented Vi. "I could have told the man who wrote it that they are not reptiles; the idea of them thinking they are!" she added wrathfully.

She continued her reading somewhat impatiently, until she found a passage about the newt—or, as the book in question named it, the "Water-lizard."

"That's all rot, as well," said Jackie, checking her. "How can the newt be a lizard? A lizard is a reptile."

By common consent the point was referred to Miss Forman, who was seated before a basket overflowing with small stockings, all demanding attention; most of them were Jackie's, and she sighed gently as she surveyed the pile before her.

"I say, Miss Forman, this book says that the newt is a water-lizard," cried Jackie.

"Why not, Jackie? If the book says so, it must be true," she replied, smiling wearily.

"But I don't think so," urged Jackie. "Besides, it calls frogs and toads reptiles!" he added, with withering scorn.

"Well, what are they?" asked Miss Forman, somewhat at a loss.

"Amphibians," replied Jackie, decisively; "and newts are amphibians, too, I'm sure."

Jackie had thrown down the gauntlet in defence of his beloved Pondland, and was prepared to be the champion of his amphibian friends.

"But, Jackie," replied Miss Forman, indulgently, "a newt has four legs and a tail, like a lizard."

"Yes," assented Vi, doubtfully.

Jackie pondered over this knotty problem, but was not convinced. Suddenly he looked up, and said sweetly:

"Miss Forman, a dog has four legs and a tail, and so has a cat, yet they are different animals."

"That is foolish," said Miss Forman, finding this argument difficult to answer. "I said a newt is like a lizard."

"No, it isn't," said Jackie, in the excitement of the moment and forgetful of manners.

"Jackie," said Miss Forman, sharply, rising in her wrath, "that was very rude of you. I will not be spoken to in that manner. If you don't say you are sorry I shall tell your father; and you know," she added meaningly, "what he will do."

Jackie, the champion of newts, did know; there had been painful interviews between them on several occasions, and he now bethought him that discretion is the better part of valour.

"I'm sorry, Miss Forman," he said; and then, in an undertone, like a modern Galileo, he muttered, "But they're not lizards at all."

Vi came to the rescue; she was by no means convinced, and, feeling that Jackie was right, was inclined to be loyal, and stand up for the poor victim of nursery oppression. Miss Forman fondly hoped that the incident was closed, and resumed her work, somewhat ruffled at the passage-at-arms that had taken place. To her came Vi, with deep humility and as one seeking instruction.

"Miss Forman, will you look at this picture?" she asked meekly, pointing to an atrocious wood-cut libel of the newt. "He hasn't got a lizard's tail. A lizard's"—here she turned the pages to exhibit a picture which professed to be a faithful portrait of the animal in question—"is long and pointed; and this newt"—turning again to the amphibian—"has a broad, flat tail."

"Oh, don't bother me with those things!" said Miss Forman, who was not proof against this attack. "I have no time to attend to them. The book says 'Water-lizard,' and so it is. You had better ask your Uncle Jack, next time he comes."

"I shall," assented Vi, quietly, and with a little toss of her head. "I believe I'm right, and this book is wrong."

Unluckily, in the triumph of her victory, she cast the offending book into a corner, to show her contempt for its author. Miss Forman, ever ready to regain her influence, availed herself of the opportunity thus presented.

"Vi," she said sharply, "come here."

Vi silently obeyed. She, too, was suffering in the interests of science.

"Pick up the book this instant, and put it back on

the shelf. Don't let me ever see you do that again," she added, in tones of command.

Vi immediately complied, though with a naughty shrug of the shoulders, and Miss Forman feared that trouble was in store, for Jackie was brooding over his wrongs, and Vi was in open revolt. Tears were imminent, and the governess was not altogether sure as to whether a newt is a water-lizard. Her youth had been otherwise employed, in the acquisition of genteel accomplishments. Jackie and Vi retired to a corner of the room and amused themselves with their slates, drawing from memory sketches of the animals with which they were already familiar, and a strained silence reigned over the nursery.

At length a knock came upon the door, and a trim maid announced that the children were required in the drawing-room. But, while the incident was forgotten for the moment in hurried preparations of clean hands and duly-adjusted hair, Jackie's faith in the knowledge of his teacher was shaken.

"I tell you what it is, Vi," said he, after they were in bed; "it is no good trusting to that book, or to what people tell us about newts. We'll just have to ask Lemna. She won't tell us not to contradict, or get cross when we want to know anything."

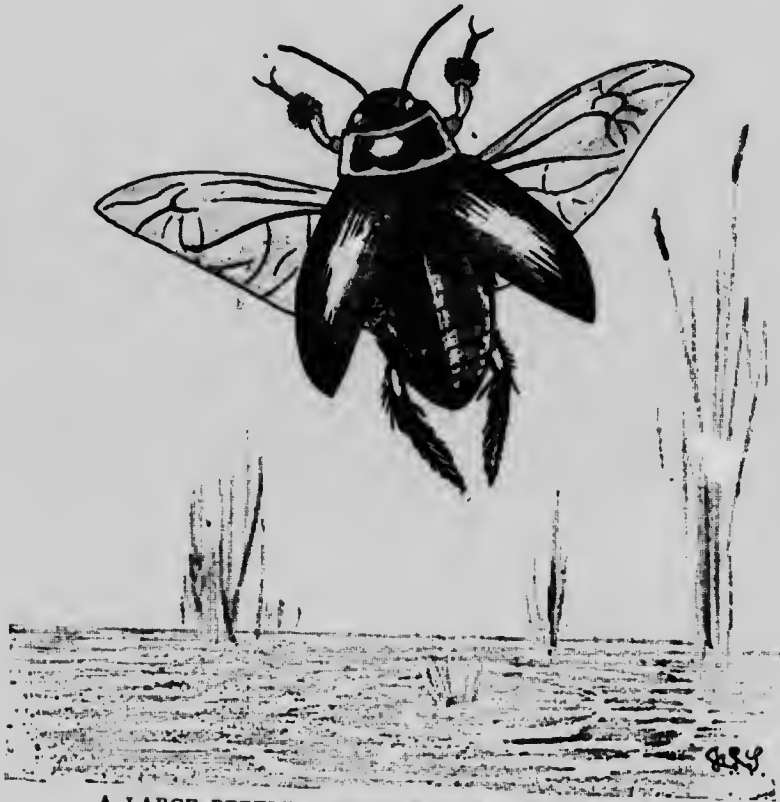
As he spoke the filmy luminous mist rose before them as it had done on a previous occasion, and slowly resolved itself into the form of Lemna.

"Children," she said, "you are quite right: the newt is not a water-lizard. Good-night," and the vision was gone.

"That's settled, at all events," said Jackie. "Good-night, Vi."

"Good-night, Jackie;" and the two little inquiring heads were soon hushed in peaceful, childish sleep.

But what is the moral of this incident? Never argue with a child who has begun to study natural history, unless you are quite sure you are right; otherwise, you may warp and cramp the natural spirit of observation,



A LARGE BEETLE FUSSING AND B ZING AROUND.

and ruin what might be a brilliant mind. Every child has not a Fairy Lemna to resolve its doubts.

\* \* \* \* \*

The rain of the previous day had done much to refresh the face of Nature, but Jackie and Vi shook their heads doubtfully, knowing full well that their wanderings, so long as the grass was wet, would be confined to the paths.



"Never mind," said Vi; "to-morrow it will be lovely, and there will be ever so much for us to see."

"I suppose there will," replied Jackie, rueful'y; "but that doesn't help us now, does it?"

However, they walked and talked during the whole afternoon, privily watched by Miss Forman, lest peradventure they forgot her injunctions and went on the grass. The sun was setting, and Jackie, hearing an unusual sound, suddenly looked upward, when a large beetle came fussing and buzzing around. There was something strangely familiar about it. Where had he seen that boat-like body before?

"Look, Vi," he shouted. "There he is—the ogre, out for a fly;" and, followed by Vi, he darted in pursuit.

Now, at the bottom of the path was the conservatory, wherein once dwelt the two luckless toads who had been condemned to semi-starvation, under the impression that they could exist on such stray insects as came their way. Towards this the ogre flew, with all the importance of his race when on the wing. There is nothing more self-assertive and important than a beetle, when he makes up his mind to fly. He arrived at the greenhouse, and seemed greatly struck by its appearance. Jackie and Vi ran up, their eyes intent upon him. Something about the conservatory evidently interested the ogre, for he took a turn or two about it.

"How jolly!" said Vi. "He is giving us quite a view of him, isn't he?"

"Doesn't he look funny, though," said Jackie, "with his wing-cases stuck up like that? He seems quite a different creature, and yet I can't be mistaken."

"Hullo!" cried Vi, "what's the matter with him?"

Now "Hullo!" is not a nice word for a little girl to use—often; still, it may be permitted at times, and this was one of them, for the ogre suddenly shut up

his wings with a click, and fell plump on to the glass roof of the greenhouse. The children were astonished, and so, apparently, was the ogre, who, after falling,



FELL PLUMP ON TO THE GLASS ROOF OF THE GREENHOUSE.

very naturally rolled down the smooth glass and fell upon the path in front of them. There he lay, struggling and stupidly kicking with his oar-like legs, which

performance only ended in his spinning round and round on his hard back like a teetotum.

"Poor thing!" said Vi, forgetting for a moment all the offences of the ogre when in his more native element.

"Isn't it a lark, Vi?" said Jackie, laughing. "He's like the turtles Uncle Jack told us about; he can't get off his back."

But Jackie was wrong, for the ogre eventually succeeded in turning over. Even then his legs seemed very useless on dry land, because he could not realise that he was not in the water, and *would* try to use them as oars. He looked about as much at home as a sea-lion in a desert.

"I'm going to have a good look at him," said Jackie, and bent to pick him up.

The ogre evidently resented exceedingly this action on the part of Jackie—his oars flapped more vigorously than before; but Jackie did not care. Both children's heads were close together over their new-found treasure, when suddenly Jackie gave a cry of disgust and flung the offending beetle far from him into the grass, while Vi retreated hastily.

"Oh, Jackie," she cried, as she buried her face in her pocket-handkerchief, "what a horrible smell!"

Jackie wofully wiped his fingers in his own none-too-clean handkerchief.

"Phew!" he said, with huge contempt. "What a horrid beast! Did you see? He squirted a lot of white stuff over my hands."

"I didn't *see*," said the smothered voice of his sister; "but I can *smell*."

"I should think you can," retorted her brother, "and so can I. Only," he added, holding his hand as far away from him as possible, "I can't get away from it as you can."

"Oh, Jackie," cried Vi, "it's just like those moorhens' eggs that were bad when you tried to blow them, and one burst."

Jackie nodded: he was painfully reminded of that incident at the present moment.

Just then Miss Forman appeared at the door, smiling, and beckoning for them to come in to tea. Jackie gave a little laugh.

"She won't smile so much when she smells this," he said grimly. "I shall catch it; I know I shall."

Though sympathetic, Vi still avoided her brother as an unclean being.

"You couldn't help it," she said. "How did you know the nasty thing was going to do that?"

The remark brought very little real consolation to Jackie, who, followed at some distance by his sister, walked meekly towards Miss Forman. Just then, from the grass where he had been hastily thrown, the ogre rose once more and continued his busy flight.

Jackie stopped short.

"Beast!" he said, referring to the departing beetle, and this ejaculation relieved him considerably.

"Come along, children," said Miss Forman, encouragingly. "Tea's ready."

As Jackie approached the worthy gentlewoman seemed to be conscious of an unpleasant odour, and sniffed doubtfully. Then she held out her hand to Jackie, but, as Vi had done, recoiled from him in disgust.

"Whatever have you been doing, Jackie?" she cried, in alarm.

"It's the beetle," he returned doggedly.

"Yes, it's the beetle," repeated Vi.

"What beetle?" asked Miss Forman.

"The ogre," said Jackie, in solemn tones, looking unspeakable things in the direction taken by that insect.

Vi now came to the rescue. She, at least, could approach Miss Forman without offending her sense of smell.

"You see, Miss Forman, it was like this: the ogre—that is, the beetle—fell on the top of the greenhouse and rolled off, and Jackie picked it up, and then it squirted a lot of nasty white stuff over him; and oh! it does smell horrid! Just like rotten eggs."

"How often have I told you, Jackie," said Miss Forman, "not to play with these nasty things? Now see what a state you are in! Come at once, and let me wash your hands. I hope this will be a lesson to you not to meddle with the horrible creatures."

Jackie, a very pariah in nursery circles, entered the house alone, and retired to the bedroom which he shared with Vi, where Miss Forman diligently scrubbed his hands with soap, water, and nail-brush. But, although the smell was in some degree banished, a faint odour, which defied all attempts at disguise, still clung to his hands. Scent and lavender-water seemed only to add fresh terrors. So much, indeed, was this the case, that it was mutually agreed that Jackie should eat his tea at a separate table, where he could not actively offend, and thus the little outcast discussed his meal in solitary grandeur.

The children made their way to the pond on the following day, and naturally had much of importance to ask concerning the lamentable happenings which temporarily condemned Jackie to seclusion from his sister and others. He had conceived a violent dislike for the ogre, and Vi, who had always regarded the latter as a cruel monster, was even more contemptuous.

"I wonder," she said, with a toss of her curls, "that Lemna allows him to live in the pond at all. I know I shouldn't—the nasty, disgusting creature!"

As they stood on the margin of the pond they could

see the gentle, lazy bodies of the newts slowly gliding and floating with indolent grace beneath the surface of the water ; then, with a single stroke of its webbed tail, one or other would turn and rise to the weedy surface and take its mouthful of air, afterwards slowly and luxuriously settling down again to the bottom.

"They *are* lazy," said Vi, who had been watching their evolutions with interest. "They just seem to allow themselves to float about anyhow. I believe they would even be too lazy to come up for breath, if they weren't afraid of being drowned."

"You're right," said Jackie. "They aren't half as lively as the whirligigs, for example, or the tadpoles, or——"

"The ogre?" suggested a sweet voice, followed by a silvery, tinkling laugh which rose from the pond.

Both children burst out laughing.

"It's Lemna, teasing us," said Vi. "Dear Lemna, we do want to have a serious talk with you."

"Then come," answered the voice.

"Look out!" cried Jackie, as he and Vi, hand in hand, plunged into the depths of the pond.

Every day Lemna seemed to grow more beautiful, and Vi, feminine-like, noticed this. The fairy was now in a merry mood ; first the rain, and then the warm sun, seemed to have given her both gaiety and wit, and galvanised her into the fullest life.

"It's all very well," remarked Jackie, "to chaff us about the ogre, but I tell you it was no joke."

Lemna, reclining in one of her submerged forest glades, and resting her head upon the smooth, soft back of Mrs. Newt, laughed aloud.

"It's very unkind of you to laugh at poor Jackie," said Vi, seriously, endeavouring to reproduce Miss Forman's accents of reproach.

Lemna paused for a moment.

"My dear little children, I'm not laughing at you, but at the ogre," she said. "It is quite the funniest thing I've heard for ages."

"But why laugh at *him*?" asked Jackie.

Mrs. Newt here became uneasy, and slowly sailed upwards for air, when Lemna rose.

"Come along and look at him," she said.

Taking their hands, they floated to the surface, where they saw the ogre sulkily floating, his tail just sticking out of the water, so that his air-chamber, which was inside his wing-cases, could be filled.

"It was a funny adventure," continued Lemna.

"You see, Mr. Ogre thought it would be very nice to have a fly, so he clambered out on to a leaf in order to do so. I needn't tell you how awkward he is on dry land—you have seen it for yourselves. Well, off he went, full of importance, humming and buzzing, and thinking himself the bravest, finest beetle that ever spread his wings to fly."

"I know," said Vi—"we saw him."

"He had not gone far," resumed Lemna, "when he found himself over what he thought was another lovely pond. He sailed round and round, and had a good look at it, and then, in his usual silly way, shut up his wings so as to drop in with a splash; but instead of finding a nice, cool pond, he fell whack upon a nasty hard place, and rolled and tumbled right down to the ground."

"So he did," said Jackie. "It wasn't a pond at all, but the roof of the greenhouse."

"I see," said Vi, "and the silly old thing mistook glass for water."

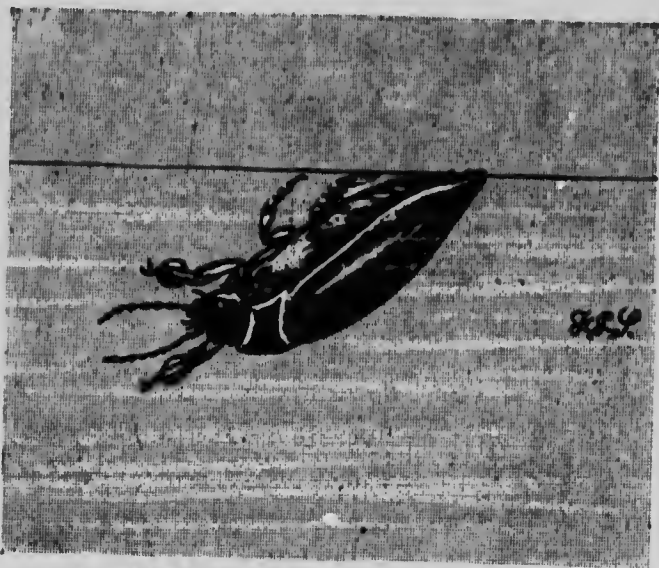
This time all three joined in the laugh at the expense of the poor ogre.

"Oh!" said Jackie, holding his sides, "that is funny! What a lark! And how cross he must have



been, when he found himself rolling and tumbling down."

"Of course he was," said Lemna, mischievously. "He is never a very good-tempered beetle. Then, just as he was feeling dazed and angry, a little boy picked him up and held him tight. That made him frightened, and cross, too, because he thought the little boy was a new kind of bird who was going to eat him, and so——"



THE OGRE SULKILY FLOATING ON THE SURFACE.

"He spat out a whole lot of nasty white smelly stuff, all over poor Jackie," concluded Vi.

Lemna nodded.

"Yes," she said; "that is what . . . always does when he is frightened, or if any other animal seizes him. It is his way of protecting himself."

"It's a very nasty way!" said Jackie.

"But it never fails," replied Lemna. "Fancy a duck getting a mouthful of that white stuff!"



"Ugh!" said Vi, with huge disgust; "don't talk of it, Lemna."

Jackie eyed the offending beetle with great scorn.

"You are a nasty, low beast!" he said. "But make your mind quite easy—I shall never pick you up again; never, as long as I live!"

## CHAPTER X

### THE WATER-BOATMAN

"NOW, we must not spend any more time in laughing at the ogre and his misfortunes," said Lemna. "Every day is precious, and you have much to see. Welcome, welcome, sweet sun that gives life to the pond!" she exclaimed, raising her delicate arms to the vivid green roof of floating weed above her, through which pencils of light darted, making a dappled carpet of the soft, muddy bottom.

"Well, then, let's see the tadpoles," said Vi, with great decision.

"Oh, yes," said Jackie; "let's."

His grammar was occasionally at fault, but what of that?—his meaning was abundantly clear.

On looking upwards at the giant stalks and spreading leaves, the children were aghast with surprise. Within the past two days the tadpoles had been hatching with alarming rapidity. On every stalk and leaf were little struggling knots in their baby stage, clinging on by their suckers and looking very much like strange flowers on the weed-stems, save that they were continually in motion.

"Are they never still?" asked Vi.

"As still as little children usually are," replied Lemna.

"Remember, they have had to lie quiet in their jelly sacks for so long a time, that now they are enjoying their freedom."

But there were other tadpoles than the babies.

"There's a fine fellow!" said Jackie, pointing to one larger than the rest, who swam past him with a very independent air.

"It is a beauty!" said Vi.

"That is one who was hatched out the last time you were here," explained Lemna.

"He's eating something!" cried Jackie. "I thought you said they didn't eat."

"Oh, yes, they do," said Lemna; "when they are two or three days old. This one has now real jaws of his own, which the others haven't. As yet he is a vegetarian, and eats nothing but weeds."

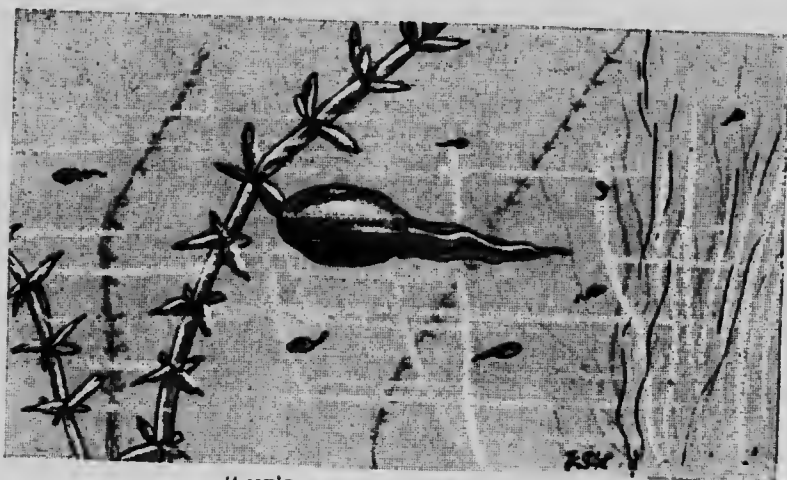
"His food doesn't look very nice, but I daresay he likes it," remarked Vi.

"Of course he does," replied Lemna. "That is one of the blessings of Nature: she provides particular food for every creature, ready at hand whenever it is wanted. The reason that butterflies lay their eggs on certain plants is that the young caterpillar may come out of his shell to find his food actually awaiting him."

Meanwhile, the tadpole who had arrived at the dignity of jaws was feeding ravenously, and enjoying his first taste of the weedy tangle which would be his food for some time, at least. He buried himself in the dense growth, gobbling away as hard as he could, utterly lost in the delights of food. Watching him, with large, gleaming eyes, was Master Dragon-fly, his dirty-brown body pressed well against the mud, and his mask moving slightly with impatient greed. His sprawling, spiny legs slowly drew his uncouth form closer and closer to the little glutton, and the children watched, fascinated by the cat-like, stealthy tactics of Master Dragon-fly. There was no undue hurry; he was sure of his quarry. Silently, but surely, the

deadly mask unfolded itself, shot out and tightly gripped the struggling tadpole, drawing it towards his horny mouth, which was opening and shutting in anticipation of its rich feast.

The creature retired to the bottom of the pond, where it began to devour its prey, its large eyes intently watching to see that no enemy came in sight. As, bit by bit, the tadpole disappeared, gulped greedily into that hungry maw, Vi expressed her disgust :



" HE'S EATING SOMETHING."

" I don't like dragon-flies. They are nasty, cruel creatures ! "

" Perhaps," replied Lemna ; " but remember what we said the last time you were here, about the thousands of frogs."

" You little silly ! " cried Jackie ; " tadpoles have got to be eaten, and why shouldn't Master Dragon-fly do it as well as anybody else ? "

" I know they have," said Vi. " But tell me, Lemna, how is it that some of Dragon-fly's brothers are so much smaller than he is ? See," she continued, " there is quite a tiny one."

"Ah!" replied Lemna, "that is a matter I wanted to explain. You must know that there are several kinds of dragon-flies."

"Are there?" said Jackie. "I never thought of that."

"Of course there are," replied Lemna: "two very particular kinds."

"And what are they?" demanded Vi.

"Well, my dear," said Lemna, "we won't bother about their long Latin names, but will call them the large dragon-fly and the small one."

"And the big fellows here turn into big dragon-flies, and the small ones into little dragon-flies," said Jackie.

"That is so," replied Lemna. "I won't tell you anything more about them just now, because I hope you will learn for yourselves what they are like when they leave the pond. I will show you the Water-boatman, of whom I have often spoken. I want you to study him more closely than you have hitherto done, for you will find him very interesting. See, here he comes!"

A beautiful, silvery creature shot out from the jungle of weeds, propelled by short, sharp strokes of two very long, oar-like legs, which he extended, and on which he seemed to rest—just as a boatman rests on his oars—as he clung with his forelegs to a leaf.

"Hullo!" cried Jackie, who by this time had learned the general appearance of insects, "he's swimming on his back."

"That shows his sense," replied Lemna. "Have a good look at him, and notice how his back is shaped."

"He is very like a boat," remarked Jackie.

"You will observe," said Lemna, "that his back has a distinct keel."

"So it has," replied Jackie. "See, Vi—he is exactly like my little boat that I sail at the seaside, and that ridge on his back is just like the keel."



THE WATER-BOATMAN.

"Then," continued Lemna, "his chest is quite flat, and covered with velvety fur."

"Like the silver beetle," said Vi; "and that bubble is his air supply. I suppose?"

"Yes," returned Lemna; "that is how he breathes. He goes to the surface now and again for air, and then comes back, to row about down here."

"How jolly!" said Jackie, and he beamed with pleasure. "I should love to be a boatman."

Just then the boatman, as if waiting to make a sudden dart, began to paddle gently with his hindlegs, or oars, while still holding on to the weed: he had evidently seen something. Then two strokes of his oars carried him right away.

"Look," said Lemna, "how he feathers his oars!"

"What's that?" asked Vi.

"Why, you know!" said Jackie: "turning them, that they lie flat, so as not to stop the boat. Don't you remember Uncle Jack showing us how to do it on the river?"

"Oh, yes," replied Vi, "of course; but how does he do it, Lemna?"

"I'll show you," she said. "Come along, and let us follow him."

They all hurried after the boatman, who was pulling away right merrily at his oars.

"The blades," she continued, "are made of hairs, which stick out when he pulls; then, as he shoots along, all those little hairs fold flat down against his leg, so that he can move very quickly indeed."

Suddenly the boatman shot like a flash to the surface.

"How did he do that?" asked Jackie. "He didn't move his oars a bit."

"That's because he is not a heavy creature," replied Lemna. "You know how difficult it is to hold a cork under water, don't you, Jackie?"

"Rather!" he replied. "I've often tried to do it in the bath at home, but it always bobs up to the top again."

"Well, the boatman is just like a cork," explained



Lemna. "As long as he keeps his oars going, he is all right; but the moment he stops, he 'bobs' to the surface."

"But he didn't just now, when he was near the weeds," remarked Vi.



"THE BOATMAN'S 'OAR'—THE BLADES ARE MADE OF HAIRS."

"No," she replied; "that was because he held on to them with his front legs. He had anchored his boat. Do you see what I mean?"

"I understand," said Vi.

Jackie was thoughtful, and with him this was always the prelude to deep questioning.



"I wonder," he said presently, "how he manages; because the boats on the river have to be painted and varnished. Uncle Jack said that rowing wore the paint off the sides. The boatman can't have any to wear off; besides, he hasn't got hard wing-cases, like the ogre. Doesn't he hurt himself, always rowing about like that?"

"No," said Lemna, pleased at Jackie's reasoning. "He has no wing-cases, as you say; but his skin is very hard, and his wings—or, rather, his outer wings—are horny, so he is able to row about quite safely. Come closer to him," she suggested, and they floated upwards together.

The boatman was sunning himself on the surface, and was fully charged with air; but he was not quite content, even then, and, seizing a floating leaf, pulled himself upon it and lay flat, revelling in the warmth of the afternoon sun. Then he began his toilette: gently loosening his wings, he began to brush them with his long hindlegs, removing any slime or dirt which clung to them from his travels in the pond beneath.

"Look," cried Jackie, "he's cleaning himself just like a blue-bottle fly."

"Yes," said Vi; "but his long legs are better than a blue-bottle's, because they can reach all over his back."

"That is so," Lemna agreed; "and the hairs on them make beautiful brushes, don't they?"

"So they do," said Jackie. "He's just like Uncle Jack brushing his coat before he goes out; only he can do it a lot better, because he can brush his back, and Uncle Jack always asks me to do that."

"And me, too," said Vi, determined not to give Jackie all the credit for the brushing of their favourite uncle's clothes.

"I think," said Lemna, "he is now going to fly, and

so is brushing himself—'just like Uncle Jack.' He's very particular about his appearance when he's going out."

In the course of his toilette the boatman had succeeded in jerking himself well into the middle of the leaf, and didn't seem at all easy.

"How he is tumbling about!" said Vi, laughing at his awkward figure, now that he was out of his element.

The boatman was pulling hard at his oars, which action only resulted in his being thrown about on the leaf in a very lame manner.

"He's like a sailor on shore," said Lemna—"not able to forget the sea, and so he's trying to row on dry land."

"I tell you what he is," cried Jackie: "he's a regular fish out of water!"

"Not quite that, Jackie," replied Lemna, "as you will see."

By-and-by, after turning many somersaults, the boatman once more fell into the water, where, though he seemed a little more at his ease, he was not quite comfortable.

"What's the matter now?" inquired Vi. "He's not flying, as I thought you said he was going to do."

"I still say so," replied Lemna.

"Then why doesn't he begin?" demanded Jackie.

"I'll tell you," said Lemna. "We agreed, just now, that he was like a cork, didn't we?"

"Yes," replied Jackie.

"Well," continued the fairy, "he's floating on the top of the film of the water—the 'thin ice' we were speaking of the other day—and he hasn't yet been able to break it. He'll soon manage it, though."

The boatman was evidently trying to sink, but was

kept afloat by his natural buoyancy, coupled, of course, with the air in his velvet chest. When at length he managed to penetrate the film, and flashed to the very bottom of the pond, Jackie was hugely contemptuous.

"I don't call that flying!" he said.

"Hush!" commanded Lemna. "Wait a moment;" and, even as she spoke, the boatman sprang from the bottom with tremendous force. So great was his speed, indeed, that his little body shot right out of the water into the air, and, once there, he unfolded his thick, horny wings, and flew gaily about the surface of the pond with a pleasing, important hum, which seemed to indicate that he was enjoying himself tremendously.

"Now, Jackie," said Lemna; "that doesn't look like a fish out of water, does it?"

"No," Jackie replied, "more like a bird in the air;" and Vi, pleased with her brother's little joke, laughed.

The boatman, however, did not take a very long "fly," and was soon back again on the top of the water, carefully folding his wings and tucking them snugly away, so that he could begin his life of a boatman once more, by plunging into the depths of the pond.

"See, Jackie," said Vi, "how careful he is."

"Yes," added Lemna. "More thoughtful than little boys who leave their clothes lying about the bedroom, isn't he?"

Jackie affected not to hear this remark, for he had frequently been severely reprimanded for untidiness in this respect.

"There he goes!" said Vi, as the boatman, with a regular sweep of his oars, darted by them. "I like him very much indeed; he is quite the nicest creature here."

"Don't be too sure," cautioned Lemna. "He has his faults and failings, like all animals, and the worst



WITH ONE STROKE OF HIS OARS HE WAS UPON HIM.

of it is that you cannot cure them of their weaknesses, as you can little boys and girls; their habits are always fixed and unchangeable, even if they are bad ones."

The boatman, after all this exercise, was inclined to be hungry. Lemna knew perfectly well that his supper-time had arrived.

"He is going hunting," she continued, "for his outing has given him an appetite."

"How does he hunt?" inquired Jackie.

"Quite easily," she replied. "Like a greyhound, he moves so quickly that he is a match for anything. I told you so," she added, pointing to a clump of weeds which were being violently agitated by a terrible struggle. What had taken place was this:—

The boatman, having an eye to supper, had gone down to the weeds, to watch and wait until he saw something which would appeal to his taste. Not that he was at all particular—he had a healthy appetite, not unlike Jackie in this respect—and all was fish that came to his net. He very sensibly preferred large fish to small fry, and allowed several toothsome waterfleas and shrimps to pass unnoticed. As it happened, one of the dragon-flies was passing along, seeking whom *he* might devour, and so intent was he upon his quest that he did not see the tiny boatman, who was clinging to the weeds above him.

Now it struck the boatman that Master Dragon-fly would suit his requirements very well, so, with one stroke of his oars, he was upon him, which naturally caused a commotion, for Master Dragon-fly strongly resented the idea of figuring as supper for his antagonist. The struggle was a fierce one, for both were resolute persons; and when two people are very determined in argument, it is usually a long time before they arrive at a conclusion.

Master Dragon-fly fought as well as he could, and tried to use his "mask," but the boatman's hard back was a difficult thing to grip. With the tadpole the matter had been very easy, because he had a nice, soft, plump body; but the boatman was a harder nut to crack. Besides, he had two strong front legs, which seized the drab body of his prey. Then came the master-stroke which gave him the victory: he drove his beak into the soft, yielding carcase of his supper.

The children, of course, knew nothing of the manner in which the struggle was conducted, but suddenly the boatman darted out of the tangle, carrying the body of his victim, which was fully twice his own size.

"Look!" cried Jackie, eagerly; "he's making off with young Master Dragon-fly in his mouth."

"I am glad," said Vi, maliciously, and with almost unconscious vulgarity. "It serves him jolly well right, for eating up the poor tadpole."

"But," said Lemna, "he's not carrying him in his mouth, Jackie. If you look, you will see those front legs are gripping him, and his beak is buried in the body."

"What does he want with a beak?" asked Jackie.

"Didn't you say, just now, that he was like a bird in the air?" she replied, smiling.

"But I didn't altogether mean that," replied Jackie.

"Well," continued the fairy, "the boatman's beak is not quite like a bird's—it more resembles a hook; but he sticks it into the body of his victim, as you see, and then sucks out all the juices, leaving only the shell behind."

"Like a weasel," suggested Vi.

"Exactly," replied Lemna.

The boatman had now settled down to the enjoyment of his food; but there were others whose keen eyes had seen the body of Master Dragon-fly, amongst

them the sulky ogre, who saw an opportunity of getting a tender morsel without much trouble, and plunged downwards with this intention.

"Look!" exclaimed Vi; "here comes the ogre. He will soon drive off the boatman, and get the Dragon-fly for himself."

"Coward!" cried Jackie, who had not forgotten the ogre's want of manners on the previous day—"to go and take the food out of the mouth of a little thing like that!"

But the boatman didn't care a bit; he just pulled hard at his oars—burdened as he was, he could still use them well—and dodged the ogre.

"His food is dearer to him than life itself," explained Lemna.

Indeed, the boatman seemed quite willing to submit to the attacks of all the ogres in the pond—and there were many—before he would give up his supper. Still sucking hard at his juicy morsel, he swam hither and thither from his pursuers until he had quite exhausted the body of his victim, and it was of no more use than a squeezed lemon, when he went to the surface, to float and have a sleep.

As soon as he released his hold of the empty body it slowly sank, but, before it could reach the bottom, the ogre was upon it, and devoured it.

"Anyhow," said Jackie to Lemna, "he couldn't have got much that time, could he?"

"No," she replied; "but don't you see that, if the body were not eaten, it would have gone bad and fouled the water? Therefore, Jackie, the ogre has done one useful thing this afternoon."

"I'm glad to hear it!" said Jackie, with huge scorn; "and I hope he enjoyed the leavings of the boatman."



## CHAPTER XI

### THE WATER-SPIDER

**J**ACKIE and his sister, as their visits to Pondland continued, with occasional breaks when the weather or domestic circumstances were unfavourable, grew in knowledge daily. They were becoming accustomed to the greedy habits of the inmates of the pond, and to the terrible and constant struggle for existence which went on beneath its almost placid surface.

The frog tadpoles duly bustled out of their eggs, while those who had been hatched earlier continued to eat freely of the vegetable diet which the pond afforded. Master Dragon-fly and his brothers took their fair toll of early and late hatchings, as did the ogre and the boatman. This merry trio were rapidly growing fat on the perpetual feast ; nor did Mr. Newt despise a very small tadpole.

The children presented themselves as usual, one afternoon late in April, and found Lemna awaiting them.

"I am going to show you the tadpoles to-day," she remarked.

"But we see them every time we come," answered Jackie.

"I know you do," replied Lemna ; "but as they are now nearly a month old, it will be well to observe what progress they have made." A nice, plump tadpole



shot by them as she spoke. "Here is the very fellow for us," she observed; "one of the little wrigglers who came out of the jelly balls."

Certainly a month's feeding had wrought wonders with the little being. Vi examined him closely, and remarked:

"What has become of the feathery gills which all the little ones have? They are gone from this one."

"How funnily he keeps opening and shutting his mouth!" said Jackie. "Just as if he were talking."

"One at a time, please," said Lemna. "Yes, Vi, the gills have gone; and, Jackie, why do you suppose he keeps opening and shutting his mouth?"

"I don't know," replied the latter.

"Because he is breathing now like a fish. As soon as his feathered gills left him—his 'baby' gills, you remember we called them—he began to breathe like a grown-up tadpole: your poor goldfish used to breathe in the same way."

"But where is his sucker?" inquired Vi. "He has now nothing to hold on with."

"He doesn't need it any longer," replied Lemna. "When he shed his skin, which he did some days ago, the sucker fell off with it."

"And his mouth is getting larger, too," said Jackie; "and his eyes stick out more."

"That is so," replied Lemna. "Look at the lumps on either side of his tail: his hindlegs are coming."

"I know," said Jackie. "The hindlegs are always the first to come."

"Not quite right, Jackie," said she. "The hindlegs are the first to show themselves, that is all. But his front legs are coming on just as fast."

Master Tadpole, however, was not going to remain on exhibition any longer; so, with a stroke of his oar-like tail, he bustled away.



THE WATER-SPIDER'S HOME.

"How funny it must seem," remarked Vi, "to commence life by breathing in one way, and then begin afresh by changing to another!"

"If you will only wait," replied the fairy, "you will see a still greater change: he will become a different kind of being altogether."

Walking through the tangle of weeds, they now came to a remarkable object, in appearance like a shiny thimble, which was carefully deposited among the stalks.

"Whatever is that strange thing?" asked Vi.

"I knew it would interest you," replied Lemna.

"Isn't it beautiful? It is a house."

"A house!" repeated Jackie, in amazement. "Who lives there?"

"The owner will soon come down," replied the fairy.

"He is very proud of his home, where he brings up his family: it also serves as a dining-room."

A fierce-looking little spider came bustling down from the surface while they were talking. Like the silver beetle and the boatman, he carried on his chest a bubble of air.

"Is he the owner of the house?" asked Vi.

"Yes, my dear," replied Lemna; "this is the Water-Spider's home."

He was busily engaged for a moment, though what he was doing they could not very well discover. Presently Jackie remarked:

"He'll soon have to go up for more air, as he must have used nearly all that he brought down."

"No, he hasn't," said Lemna; "he stores it in his house."

"How jolly," said Vi, "to build a house under water, and then fill it with air!"

Jackie gravely shook his head as he remarked:

"How clever these insects are!"

"Oh dear, Jackie!" said Lemna, laughing; "why do you always make such mistakes? Spiders are not insects at all."

"Not insects?" repeated Jackie, drawing himself up with some dignity. "What are they *but* insects? They are just like—insects," he added, lamely failing to find a more expressive word.

"I am afraid you haven't examined them closely



"HE HAS EIGHT EYES."

enough," replied Lemna, "or you would see they are not. But here he is again, bringing more air for his little house. Now, let me show you one reason why he is not classed as an insect. Look at his legs. How many has he?"

Jackie counted:

"One—two—three—four—five—six—seven—eight; what a lot!" he said.

"And how many legs have insects?" asked Lemna.

"I don't know," replied Jackie.

"Then count them on the boatman, who is resting over there," she said.

"You count this time," said Jackie to Vi; "I counted the spider's legs."

Vi carefully examined the boatman, checking each limb on her finger:

"One—two—three—four—five—six!" she cried, holding up five fingers and a thumb.

"There," said Lemna. "Insects have six legs only, while spiders have eight. But that is not all," she added. "Notice his eyes. Are they like the boatman's?"

Vi uttered a cry of delight as she bent over the spider.

"Why, he has a lot of little eyes, all bright and shining like tiny diamonds!"

"So he has," assented Jackie.

"Yes," Lemna explained. "Instead of having a lot of little eyes, all put together into one big one, like an insect, he has eight distinct ones, arranged in two curved rows."

"I see them," said Jackie. "But what are those things that stick out over his mouth? Are they feelers?"

"No," she replied; "they are forceps, or pincers, with which he seizes his prey. They are very much like the boatman's beak, except that there are two of them. If you examine them closely, you will see that they are like clasp-knives, and the blades shut up exactly as yours does."

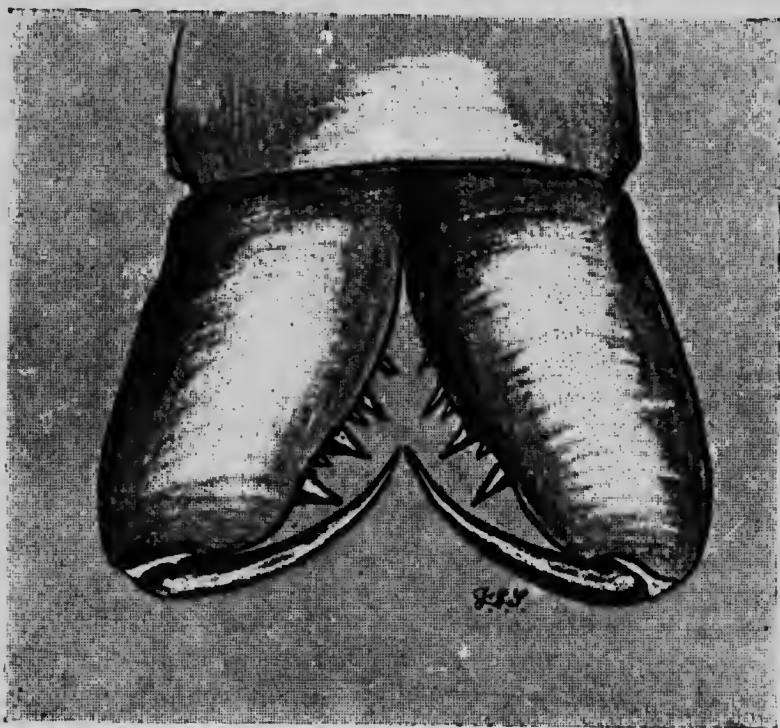
Jackie was proud of his knife, although it was not remarkable for either sharpness or usefulness.

"Then," said Vi, excitedly, "he opens the blades when he sees anything he wants, and they shut and hold it quite tight while he eats it."

Jackie assumed his air of superior wisdom.

"Spiders don't eat flies," he said; "they only suck all the goodness out of them."

"Right at last, Jackie," said Lemna, laying her hand approvingly on his shoulder. "Spiders, like the boatman, live by sucking their food, and the two clasp-knives hold it. But they are even more deadly weapons than they seem, for they are poisoned knives,



" THEY ARE FORCEPS, OR PINCERS."

and, when they stick them into any other insect, they kill it, just as an adder does with his poisonous fangs."

"I know," said Vi. "We read about it in the tale of Tom Thumb. Don't you remember?"

But Jackie had outgrown his taste for such mild stories, although he still cherished a partiality for giants and ogres, and some of their methods.

"But I want to know about the way a spider spins his web," said Vi. "I could never understand how he does it."

"Then come and examine his house, while he has gone for more air," said Lemna.

Shaped like a lady's thimble, and about the same size, it was made of fine silk, and, now that it was filled with its large, silver air-bubble, made a beautiful nest.

"If it is full of air," said Jackie, "why doesn't it float to the surface? I know when I put a corked bottle into water it always floats, because of the air it contains."

Jackie was very fond of conducting experiments with water—most little boys are; but the powers that he strongly disapproved of his scientific research into the nature and properties of liquid substances, and as far as possible discouraged such investigations.

"This little diving-bell," replied Lemna—"for this nest is one—is firmly tied to the stalks of weeds, so that it cannot float;" and the children noticed that the spider's house was very carefully moored by tiny strands to the surrounding weeds, so that it was perfectly secure and firm.

"How clever he is," said Vi; "he seems to think of everything!"

"He is obliged to do so," replied Lemna.

"But I don't yet understand how he spins his web," repeated Vi.

Just then the water-spider, bearing a fresh supply of air, came down to his house.

"Notice his body," continued Lemna. "Do you see those little warts under the tip of his tail?"

The children bent as directed, and discovered, underneath his body, a cluster of little wart-like prominences.

"I can see them," cried Jackie.



"Those," said Lemna, "are called 'spinnerets.' A pretty name, isn't it?"

"Very," replied Vi. "Have they anything to do with his spinning?"

"They have," answered the fairy. "Each of those spinnerets has a lot of holes in it, like a pepper-pot—very tiny ones, of course—and, when he spins, an almost invisible thread comes out of each hole. He then twists them together, to make a rope."

"Then is each bit of a spider's web regularly twisted, like cotton?" inquired Vi.

"Yes," Lemna answered.

"But where does it come from?" asked Jackie. "What is it?"

"Inside his body," replied Lemna, "there is a little gland which makes a sticky fluid, and forces it out of the pepper-pot as it is wanted."

"Like treacle," suggested Jackie.

"Right," said Lemna—"the fluid is very like treacle. When it is twisted and exposed to air, it dries hard and becomes strong, so that the spider can use it for building his house, or, in the case of garden-spiders, making his web."

The water-spider was now joined by a second.

"Hullo!" cried Jackie: "here's another;" and he pointed to the new-comer, who entered the house.

"That is his wife," Lemna explained. "They live together very happily in their home, where they will bring up their children."

Mrs. Spider had risen to the top of the diving-bell, where she was very busy for some time.

"What is she doing?" asked Vi.

"Laying her eggs," replied Lemna. "She will lay quite a hundred and seal them up in a silk net, or cocoon."

"Like my silkworms made," said Jackie.



"Quite correct," she replied. "Then, very soon, there will be a lot of little water-spiders swimming about."

Mr. Spider once more went to the surface.

"He doesn't stay at home very much," remarked Jackie.

"No," replied Lemna; "he is very busy, making the home comfortable and snug, and it is hard work, as he is constantly bringing down fresh air to his house."

"It must be a terrible trouble," said Vi. "Why doesn't he build it somewhere out of the water, where he wouldn't have all that bother?"

"I can't tell you," replied Lemna, "except that he loves the water and doesn't care to leave it."

Mrs. Spider had finished laying eggs for the moment, and went to the surface for a breath of fresh air, propelling her olive-brown body with vigorous strokes of her reddish-brown legs.

"Now they are both gone," remarked Jackie; "but I suppose he will soon be coming back again."

Hardly had he made this statement before Mr. Spider re-appeared, this time bringing something for his larder.

"Look!" continued Jackie; "he's got a fly."

"Oh, yes," said Vi; "and he is holding it with his clasp-knives."

The clasp-knives, as Lemna had called them, held the luckless fly very tightly indeed towards the spider's mouth, and he began to suck its juices.

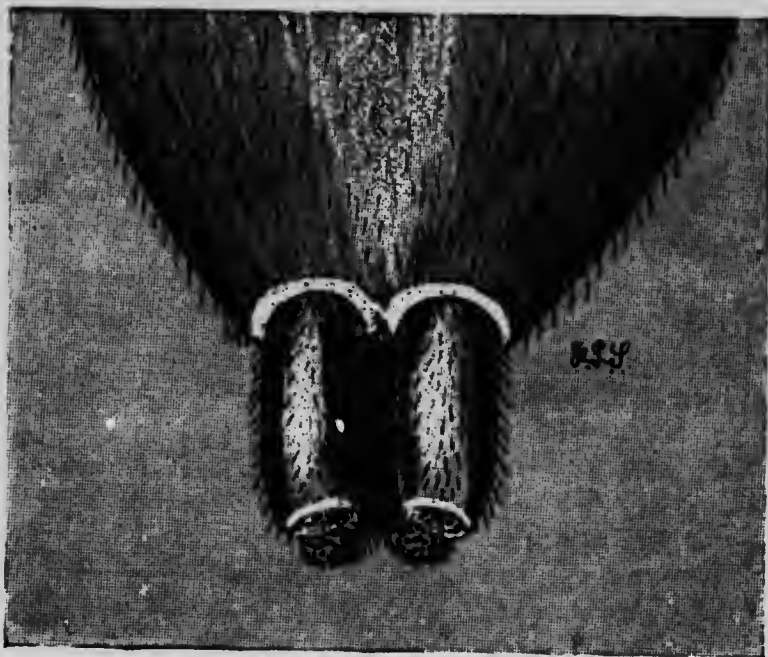
"Nasty thing!" said Vi. "How can he enjoy that?"

"You cannot account for tastes," replied Lemna. "Nature has taught him to like flies, and provides them for him. Spiders help you a great deal. If there were none of them, you would, like the Egyptians,

have a plague of flies, and all your meat would go bad."

"I don't see the good of flies at all," said Jackie. "They just buzz about, and get into the jam, and settle on grandpapa's bald head when he wants to sleep, and make him cross."

"There you are wrong," remarked Lemna. "Flies are very useful little people; their business is to be



SPINNERETS OF THE WATER-SPIDER.

scavengers, and to lay their grubs in decaying meat or anything of that sort, so that they may eat it up; otherwise the air would be poisoned and not fit to breathe."

"Oh, dear; how wonderful it all seems!" said Vi. "Every insect seems to do something to make the world fit to live in."

"Of course," replied Lemna.

"Why, of course?" asked Jackie. "I know," he continued, breathlessly—"I know of an insect that is a horrible nuisance, and does no good at all, but a lot of harm."

"What is that?" inquired Lemna.

"Look here!" said Jackie. "Last spring mother put away a whole heap of blankets, and my winter clothes and great-coat. Well, when she came to look at them again, they had all been eaten by clothes-moths. Now then, what good are they, I should like to know? They do a lot of harm, and we could very well do without them."

Lemna was amused.

"Perhaps you are right, Jackie; but it is your own fault that the clothes-moths do all this mischief. You have been very cruel to them, and robbed them of their food."

"No, we haven't," he answered. "I'm sure we never did anything to them."

"Oh, yes, you did," said Lemna. "The clothes-moth eats wool, doesn't it?"

"Of course," replied Vi; "that's what mother said. They hadn't touched the cotton things—only the woollen ones."

"Where does wool come from?" asked Lemna.

"The sheep's backs, of course," responded Jackie.

"And how do you get it?" she continued.

"I know," said Vi. "They cut it off with shears. I've seen them do it."

"What would happen if they didn't cut it off?" inquired Lemna.

"I don't know," replied Jackie.

"Then, I will tell you. The sheep would feel its weight, and it would come out, just like a dog's hair, and they would rub it off against the trees and hedges."

"Oh, yes," replied Vi; "I've seen it there. Haven't you, Jackie? Little tufts of wool on the brambles."

Jackie nodded.

"Well," continued Lemna, "what would happen if the sheep kept on rubbing the wool off, year after year, against the brambles?"

"Why," Jackie replied, "the brambles would get all covered with wool."

"And die," said Lemna, conclusively. "The branches would be clogged with it, and rot away. That is where the clothes-moth is useful. Nature intended the sheep's wool for his food, and you send your men with shears to cut it off and rob him. So he comes to look for it in your houses, and he is so just a little person that he won't touch any of the clothes you are wearing—only those you are not using. He thinks you have shed your skin, like the toad, and so he sets to work to eat it up. No, Jackie; the clothes-moth is a very reasonable person. It is only because you have taken away his food that he comes to look for it in your cupboards."

"Still, it is a nuisance," said Vi, "to find all one's nice clothes spoiled."

"I wonder," said Lemna, thoughtfully, "what the clothes-moth thinks of you!"

## CHAPTER XII

### WIGGLERS—AND OTHERS

THE month of April, with its showers, had given place to a mild and balmy May, whose every day seemed to prolong the joy of life—an ideal month. Jackie and Vi rejoiced accordingly, for, as the days were sensibly longer, they were permitted, as a great treat, to go out after tea. Lemna was more radiant than ever; her bright green mantle took fresh colouring as the season progressed. Summer had begun, and the infant life of the pond was reaching maturity.

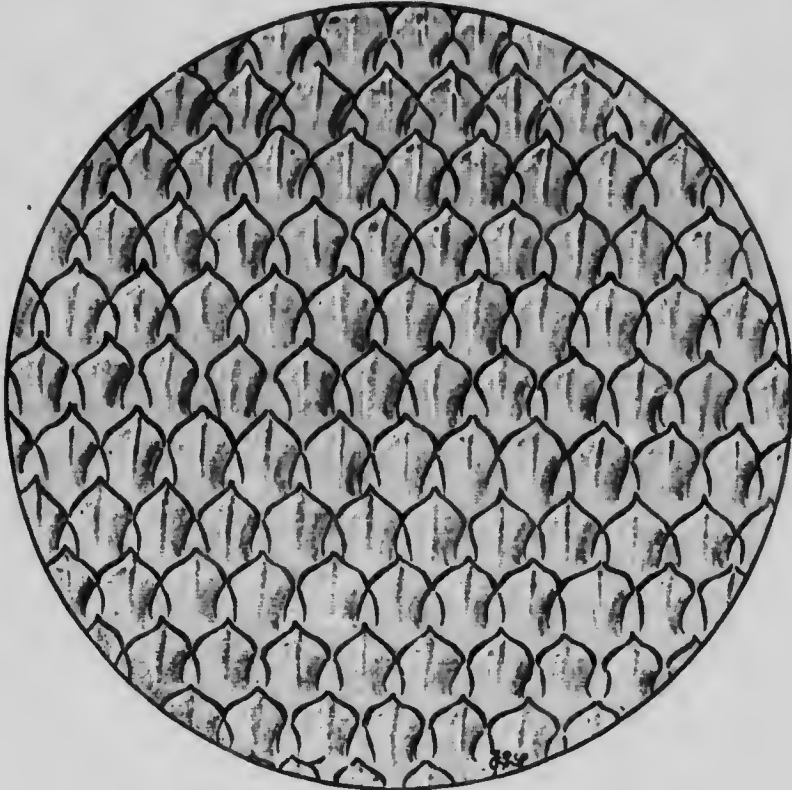
“I say, Lemna,” remarked Jackie, “we’ve seen lots of things already, but you’ve never told us about the little shrimps, and the tiny creatures which the big beetles and boatmen are always eating. Aren’t they as interesting as the others?”

“Of course they are,” replied Lemna. “The smallest citizens of the pond are just as entertaining as the big ones; but our time has been too fully occupied to attend to them. However, this afternoon we will look round at the humble folk, and see if anything is to be learned from them.”

“It’s of no use asking if they are of any service to the pond,” said Vi; “for I am sure they must be, after all you said about the clothes-moths. I suppose they exist to furnish food for the others,” she added. “Rather a hard life; but they seem to be necessary and useful.”

"Of course they are," said Jackie. "Where would you be, if there were no sheep and oxen, and fowls and pigs?"

"After all, that is only one sphere of their usefulness," remarked Lenina; "they have other things to do.



"ALL SNAILS HAVE ROUGH TONGUES."

They are most serviceable as food; but they too must live, you know. Generally speaking, the tiny people are scavengers, and sweepers for the community."

suggested Jackie.

she replied. "There are hun-  
people who exact the part of scavengers,

clearing up and tidying the place. Look at the duckweed."

The children glanced at it. When first they had come to the pond it had formed a roof above them, through which the light had filtered gently. Since then its furious, constant growth was apparent.

"It certainly has grown since we first saw it," remarked Vi.

"Indeed it has," replied Lemna; "but it would have choked the pond had it not been checked. See, there is the Catherine-wheel Snail (*Planorbis corneus*) browsing away upon it; and a cousin of his, with the same kind of shell (*Planorbis stagnalis*) is busy in the same way. They eat all the vegetables, and keep the dead leaves from rotting."

"How does he eat?" inquired Jackie. "He doesn't seem to have any mouth."

"I'll explain," replied Lemna. "All snails have rough tongues——"

"I know," said Jackie. "Like our cat."

"Oh, yes," added Vi; "covered with little bristles."

"If a cat's tongue is rough," remarked Lemna, "I wonder what you would think of a snail's, which has sharp teeth studded all over it!"

"Then," responded Jackie, "I hope it doesn't lick people, to show its affection, like a dog."

"No," returned Lemna; "it only licks its food."

"But how many teeth has it got?" inquired Vi.

"And does it ever have toothache?" added Jackie.

"Patience, children," said Lemna; "you are getting excited again. The snail has about thirteen thousand teeth."

"Poor thing!" interposed Jackie. "We've only got a few, but they're troublesome enough. How ever does it manage?"

"I don't think snails ever suffer from toothache; at

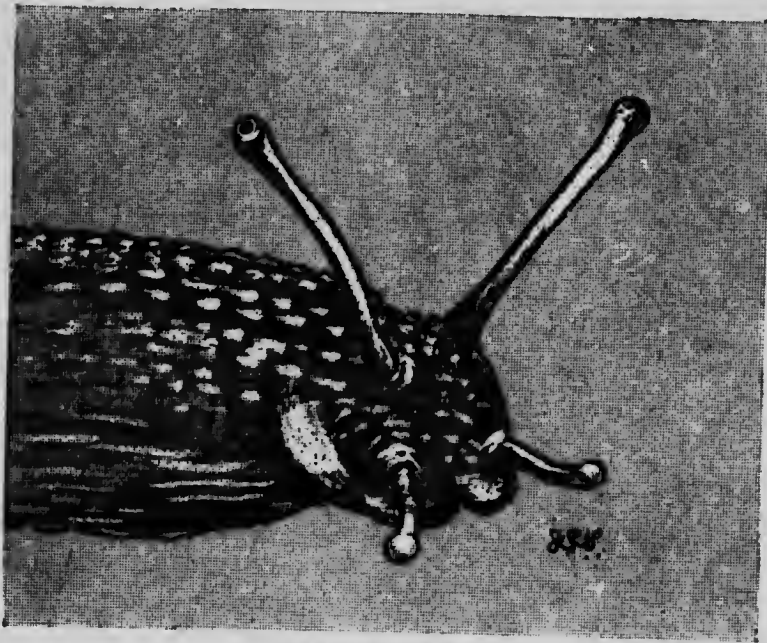


least, I hope not," replied Lemna. "Do you ever have tongue-ache, Jackie?"

"No," he replied. "Why?"

"Because the snail carries his teeth on his tongue, just as the cat carries what you call bristles. There are about a hundred and thirty rows of them, with a hundred teeth in each row."

"Are garden snails the same?" asked Vi.



"THEY ARE HIS EYES."

"Yes," replied Lemna.

"Then no wonder father kills them," said Jackie; "and no wonder they eat up everything so quickly."

"Look!" exclaimed Vi, pointing to the catherine-wheel shell. "He's poking out his horns."

"Yes; and what silly kind of horns they are!" said Jackie, contemptuously. "If they were like a bull's, or a goat's, they would be of some use; but



they are just soft things that couldn't hurt any one. I know it, 'cos I've often touched them with a stick when I've seen them in the garden, and they've drawn them in at once. If they were proper horns, they would want to use them."

"If they were horns," replied Lemna, "the snails would, of course, use them as such; but they are not. They are his eyes."

"I see now," said Vi. "He pushes them forward that he may see things quite close. Like the old man in church, Jackie, who holds his book close to his eyes so that he can read. Now, if *he* were a snail, he would push his eyes right out; then he could read without holding the book so near to his face."

The children thought this a great joke, and Lemna joined in their laughter.

"A snail, however, doesn't want to look about much," she said. "He is quite content to find himself on a leaf, and, when that is finished, he seeks another."

"But suppose anything comes to eat him?" suggested Jackie. "I know there *are* lots of things ready to do so. I'm fond of winkles, myself."

"Then," replied Lemna, "he goes inside his house and shuts the door."

"What door?" asked Vi.

"Some snails have a little hard door," replied the fairy; "and when that is closed they are quite safe; although, of course, there are many people here who can bite through their shells. The ogre, for instance, can do so when he likes. When this occurs, poor Mr. Snail is quite helpless, and has to submit to be eaten up. But I want to tell you about his horns, or eyes."

"Oh, yes," said Vi. "How does he stick them out like that?"

"His eyes are like the fingers of your gloves, Vi,"

said Lemna. "You know, when you take them off, they often turn inside out."

Vi nodded.

"The tips of the fingers come down into the hand part of the glove, 'specially if I've been eating sweets," she replied.

"Rather!" said Jackie. "I know all about that."

"Well; that is what Mr. Snail does with his eyes," continued Lemna; "the horns are like two glove fingers, and when he is not using them he turns them inside, just as your gloves turn inside when your fingers are sticky."

"And is Molly the Charwoman the same?" inquired Vi.

"Yes," replied Lemna.

"Now I will show you why she is a'ways so busy, cleaning stones and weeds."

Molly (*Bythynia tentaculata*) had just been operating upon a stone which lay at the bottom of the pond. She had cleared all the slime from a little patch on the top of it, and was now placing bands of something on the spot she had cleaned.

"What's she doing?" asked Jackie.

"Laying her eggs," replied Lemna. "She always first cleans the place where they are to go. She lays fully sixty or seventy, and yet clears a place for each, so that it takes many days to settle her family comfortably."



"SOME SNAILS HAVE A LITTLE HARD DOOR."

The Water-shrimps (*Gammarus pulex*) were very lively, jerking about continually, particularly around a catherine-wheel snail which lay at the bottom of the pond. The children had often noticed them, though usually in the clutches of the voracious beetles, who seemed particularly fond of them. Jackie now directed his attention to them more closely.

"Aren't they like fleas, Vi?" he remarked. "You know, the ones we got when we played with the puppies over at the farm."

Vi particularly remembered this circumstance; it had been an unhappy experience. As a result of having brought home several of those little insects which are the terror of the careful housewife, and whose lively manœuvres are often responsible for a restless night, they had been forbidden to play with the puppies.

"You are hardly right, Jackie," said Lemna; "water-shrimps are not related to the insects you mention."

"What are they doing?" inquired Vi. "They look as if they were biting the poor snail. Will he come out in spots, and want to scratch himself?"

"No," replied Lemna. "They are busy cleaning, as usual. This poor snail is dead, and they are eating up his body."

The children, examining more closely, saw the shrimps going in and out of his shell.

"Why," said Jackie, "they've nearly eaten him up already."

"When they have quite finished," added Lemna, "they will live in his house."

"Why?" asked Jackie.

"To be quite safe from the Ogre (*Dytiscus marginalis*) and the Boatman (*Notonecta glauca*). Water-shrimps usually live in the leaves of the Vernal Starwort, and play about there; but it is sometimes rather risky," and Lemna pointed to a clump of the plant in question

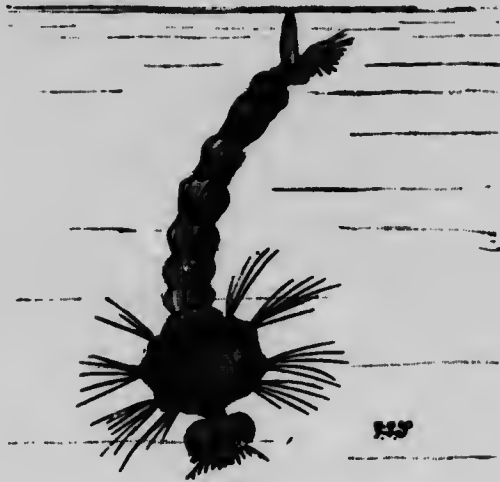
(*Callitriche verna*), in whose hair-like roots the children saw the merry little folk darting and jerking about, hunting for food here and there like dogs in a thicket.

"Lemna," said Jackie, "you are always talking about slime. What is it? And how does it get into the water?"

"I'm sure it's nasty stuff to look at," said Vi.

"And you want to know what it is!" said Lemna.

"You will hardly believe me when I say that slime is



"HERE'S A WIGGLER."

nothing more or less than the Fresh-water Sponge" (*Spongilla lacustris*).

"What!" cried Vi, in amazement. "Sponges are nice clean things to wash with; but this— Ugh! Fancy washing one's face with a river sponge!"

"Beastly!" added Jackie, very decidedly; "but it can't be the same."

"It is, though," returned Lemna; "and lives just as your sponges do."

"But ours are not alive," said Jackie. "At least, if they are, I never noticed."

"They are not, Jackie," said Lemna. "Your sponges come from the sea; but they were quite alive once upon a time. You only use their skeletons in your bath. All the little holes in the sponge were once very much alive, with a tiny creature inside each."

"How do they live?" inquired Jackie, greatly impressed. "This slime just sticks, and does nothing. How can the creatures get any food?"

"The water brings them that," replied Lemna. "It flows through the little holes, and takes with it hundreds of tiny little animals for the sponge to live upon."

"Well," said Jackie, "I don't mean to try a fresh-water sponge in my bath. Miss Forman wouldn't like it."

"I am sure she wouldn't," Vi agreed.

"Now come and see another tiny little creature," said Lemna—"one who lives part of his life in the pond;" and she pointed to a little fat-headed, snake-like being which was floating, head downwards, on the surface.

Jackie was jubilant.

"Wigglers!" he cried. "See, Vi; here's a wiggler! I know them."

"Why, there are heaps of them in the water-butts at the back of the stables," said Vi.

Both children were delighted to have found an old acquaintance in the pond, for "wigglers" are ever dear to young hearts; Lemna, also, was pleased to see her charges so interested.

"So you call them 'wigglers'?" she inquired. "You know what they are, of course?"

"Certainly," said Jackie, positively. "A wiggler is a—a wiggler, and nothing but a wiggler."

"You might as well say a tadpole is a tadpole, and nothing but a tadpole," remarked Lemna.

"So it is," answered Jackie, "until it turns into a frog."

"And does a wiggler always remain a wiggler?" she asked.

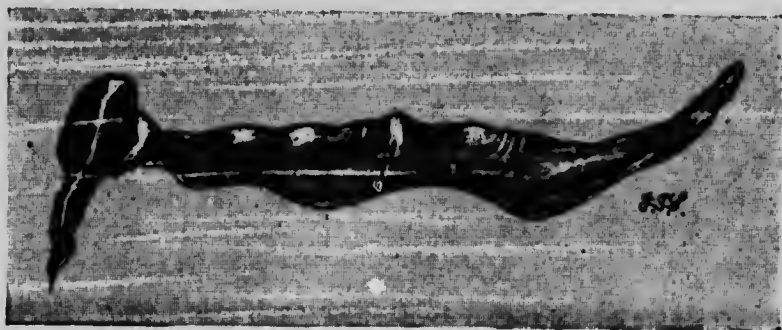
"I suppose so," answered Jackie; "there are always lots of them."

"But it does not," returned Lemna. "The wiggler has another life: it grows up and becomes——"

"What?" asked Vi.

"A Gnat" (*Culex pipiens*), replied Lemna. "Very soon you will hear them buzzing about; and feel them as well, I daresay," she added, smiling.

"Horrid beasts!" replied Jackie. "They sting awful hard."



FASTENED UPON AN UNWARY TADPOLE.

"They do," said Vi. "Last year they stung me terribly, and Miss Forman had to put stuff on my hands to cure them, and then she said it was my own fault, for going by the river in the evening."

"Each of you has made a mistake," said Lemna. "Gnats never sting."

"Don't they!" said Jackie, shaking his head indignantly.

"But they sometimes bite," continued Lemna.

"Well, what is it that hurts so? Is it the bite?" he inquired.

"Just that," replied Lemna. "The bite hurts

considerably, but there is no poison in it. You will see what I mean later."

Jackie felt a little humble; he had again made one or two blunders.

"I think they are very silly things," he continued, pointing to the wigglers, hanging head downwards from the surface. "Just look at them! Instead of floating properly, like frogs, so that they can breathe, they hang their heads under water, where they can't get any air at all."

"Do you like to keep your head above water, Jackie?" inquired Lemna.

"Of course," he replied. "When my head is out of water, I can breathe."

"And that is exactly why the wiggler sticks his tail out of water," said Lemna. "He has his breathing-tubes in his tail, and prefers to breathe that way."

"A very uncomfortable way, too, I should think," said Jackie. "I tried to hang head downwards once, but it made my face very red and gave me a headache."

"Ugh!" said Vi, suddenly starting aside, as a long, greenish, snake-like form glided by. "How that thing did frighten me!"

The green creature gently propelled itself through the water with wonderful grace, and suddenly fastened upon an unwary tadpole who was yet clinging by his sucker to a plant. The long body then seemed to shorten, and at the same time grow fatter and fatter, until it became fully half its former length, and certainly twice as fat.

Jackie laughed aloud.

"Are you frightened?" he asked. "That's a leech—a horse-leech; isn't it, Lemna?"

"Yes," she replied; "and he is making a meal of a tadpole."

The leech had taken firm hold of its prey, and they

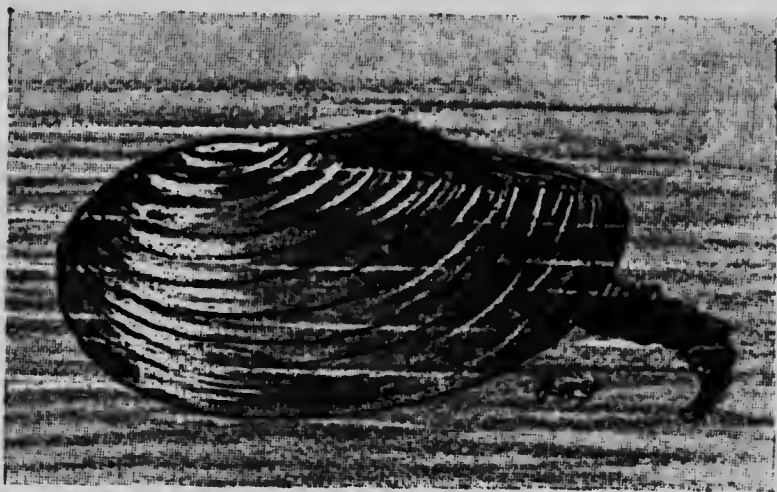


could see the soft body rising and falling as it pumped the blood from the poor little creature.

"How does he suck them?" asked Vi. "I know they *do*, 'cos Uncle Jack told us how doctors used to keep them, to suck people's blood when they were ill."

"He has a sucker-disc——" Lemna began, when Jackie interposed.

"I know," he said, joyfully. "Like my leather sucker! Like a tadpole's sucker."



THE TWO SHELLS SHUT TIGHTLY UPON THE BODY OF THE INTRUDER.

"That is exactly the case," said Lemna; "and his mouth is in the sucker, so that he can bite and draw out all the blood while he is holding on. Look, he has finished," she added, as the empty body of the tadpole sank in gentle curves to the bottom of the pond.

Meanwhile, the fat, olive-green body flattened itself once more into a mere ribbon, and with gentle motions went on its way.

"It's very like a snake, with its yellowish-green



chest," said Vi, making a little face as the leech turned gently and continued its swim.

Now a tadpole, although a good meal for a boatman, does not go very far with a leech, whose average length is three inches. Having whetted his appetite, the creature, followed by Jackie, Vi and Lemna, went in search of another toothsome morsel. There was a creepiness about his proceedings that appealed to Jackie, for whom anything suggesting the reptile world had great attractions. At this particular moment, also, a fresh-water mussel was enjoying itself as it hung on to the stems of the plants by inhaling long draughts of water. Mr. Leech felt that here was a feast for a king.

"Oh," said Vi; "he's going to eat the mussel!"

"What fun!" cried Jackie. "It'll be like grandpa eating oysters; he's very fond of them, and eats them alive."

The shells of the mussel were wide open, and he was very happy. Mr. Leech flattened out his body till it was very long indeed, and then, hoping to catch the mussel napping, deftly made his way inside the shell. There was a short, sharp snap, and the two shells shut tightly upon the body of the intruder, while both children laughed.

"Oh, how splendid!" said Vi. "Who would have thought the mussel was so wide awake?"

"Just look at the leech wriggling!" added Jackie. "Does it hurt?"

"Of course it hurts," said Vi. "How'd you like your finger shut in a trap?"

"There," said Lemna; "you see that even a senseless-looking thing like a mussel can do something. I don't think Mr. Leech will live to kill any more tadpoles."

"I'm very glad," said Vi. "I don't like leeches."

"But there are plenty of them," said Jackie, "if that's any comfort to you."

"Now, children," said Lemna, "you must run away, or Miss Forman will be looking for you. When you come again, I shall have more to show you of the tadpoles."

## CHAPTER XIII

### THE WATER-SCORPION

THE day was hot—too hot for May, indeed—and there was a decided feeling of thunder in the air. Jackie and Vi paused for a moment as they watched the surface of the pond. Suddenly Vi exclaimed:

“How still it looks; and yet, how full of life. Isn't it wonderful, Jackie! No one would ever guess the heaps and heaps of things that are going on down below, would they?”

“No,” replied Jackie; “and that's the best of it. I wish we could live down there always, and never have any nasty old lessons to do.”

“I don't know,” said Vi. “I think it would be very cold in winter. You might get frozen into a block of ice, like the mammoth Uncle Jack snowed in in his photo album.”

“Any way, there would be no bothering lessons!” retorted Jackie, who had that morning been engaged in a spirited discussion with his governess, and was somewhat ruffled in consequence.

Vi was tactful, and sought to change the painful topic.

“But see,” she said, quickly, “how the plants have grown since March! Even the snails have not been able to keep them down, and—oh, do look!—there are flowers coming, too!”

“Where?” replied Jackie, who felt very little

interest in such matters. "Why do you bother about flowers? Just like a girl! They'd sooner get a whole basketful than climb a tree for bird's eggs, or catch a butterfly. What good are flowers to any one? You take them indoors, and stick them in water, and then they fade, and you've got to throw them away. Now a bird's egg, or a butterfly, you can keep."

"But flowers are pretty," said Vi, who felt the reproof. "Look at those over there—just like little strawberry blossoms."

A tinkle of silvery laughter from Lemna, who was rocking to and fro on a rush, now attracted their attention.

"I am so glad you love my flowers, Vi," she remarked; "they are the Water-crowfoot (*Ranunculus aquatilis*), the earliest of my garden to put forth their blossoms. I was admiring them myself, for they tell me that the glorious month of June is coming, when the pond will be at its best, and alive with insects. Do you know that the tadpoles have changed their coats?" she inquired.

"Have they?" replied Jackie.

"Yes, and I want you to see them," she continued.

"Come along;" and her bright green mantle fluttered for a moment in the air as she plunged beneath the carpet of Duckweed (*Lemna minor*).

The children quickly followed, and were soon standing by her side, gazing at the dense forest of the pond which was now so familiar to them.

"Where are the tadpoles?" demanded Jackie, in a great hurry.

"There," replied Lemna, pointing to a shallow spot where a number of merry forms were sporting, curling, and wriggling like a lot of children released from school.

"By jove!" exclaimed Jackie, as they approached cautiously; "how they have altered!"

"Look at their eyes," added Vi. "They are ever so much bigger!"

"And their mouths," continued Jackie, greatly excited. "How they have grown!"

"Why, they are getting quite like frogs," added Vi.

"And see," cried Jackie, "their hindlegs, too, are coming. Hullo! Did you see that?"

"What?" demanded Vi.

"Why—that one," pointing to an unusually fine tadpole. "He caught a water-shrimp, and ate it."

"I thought you knew better, Jackie," replied Vi, reproachfully. "Tadpoles only eat vegetables."

"But I saw him!" persisted Jackie.

"You couldn't," she retorted, "because Lemna told us that they always eat vegetables."

"Then she was wrong," promptly replied Jackie.

"You are right, Jackie," interposed Lemna. "The tadpole did eat a water-shrimp."

"But you told us——" began the crestfallen Vi.

"I know I did," replied Lemna. "Though I didn't say that tadpoles *always* eat vegetables. I said the young ones do so, that was all. If you look closely, you will find that these are now more like young frogs than old tadpoles. Notice how big their mouths are. That is because they have shed the horny jaws with which they used to eat weeds. When their skins came off, the jaws came, too."

"Like our baby teeth," interposed Jackie, with a grin.

"Quite so," replied Lemna. "The tadpole's baby teeth are gone, and he has his second set now; although, of course, he has no teeth at all."

"Why do they keep going to the top of the water?" inquired Vi.

"Why do other animals do so?" asked Lemna.

"To breathe," said Vi; "but you told us that tadpoles breathe like fishes."

"So they do, when they are young," returned Lemna; "but they have now grown-up lungs, such as yours—or, at all events, like a frog's."

"Oh, dear!" exclaimed Vi. "How very confusing! First of all they breathe with feathery gills; then with fishes' gills; and now they breathe like frogs. What a lot of different ways of doing the same thing!"

"That is exactly a tadpole's way," replied Lemna: "he is constantly changing one thing for another. As you have just said, he changes his breathing apparatus three times; but he also changes his mouth, and his stomach as well."

"How?" inquired Jackie, to whom that necessary organ was of great interest.

"Why, don't you see," explained Lemna, "when he lived upon vegetables he had a vegetable-eater's stomach; now he has one that will digest meat—insects, I mean."

"How funny!" said Jackie, laughing. "These little fellows have been swimming about for ever so long, and we thought they were just enjoying themselves; and now we find that they have been hard at work all the time, changing one bit of their inside for another!"

"There is yet a further change coming," remarked Lemna. "Their legs will grow, and their tails gradually disappear as they get their webbed feet."

The froglets—for they could hardly be described as tadpoles any longer—continued to sport about, rising now and then to the surface to secure their mouthful of air. Even their hindlegs came into play. It was a most fascinating sight.

"You see," continued Lemna, pointing to the weeds close at hand, "you are not the only ones who take an interest in tadpoles."

The children, following the direction indicated, observed a terrible-looking creature eyeing the tadpoles with great satisfaction—a dull, yellowish-brown insect, not at all unlike Master Dragon-fly, except that he had no mask; nor had he the ugly, sprawling legs of that amiable person. But he was not without weapons, and deadly ones, for his head was provided with two strong, curved nippers, which were now wide open, ready to seize the first tadpole coming his way.

“What a horrid brute!” said Jackie. “He’s almost as ugly as young Master Dragon-fly.”

“He is called the Water-devil, or Water-tiger,” said Lemna, “but is really nothing more or less than a young Ogre Beetle” (*Dytiscus marginalis*).

“He seems to take after his parents,” remarked Jackie, “for he is evidently ogreish.”

“Only more so than his father,” said Lemna; “because he does nothing but eat. Instead of devouring his food, however, he just sucks out the juices, as the Boatman (*Notonecta glauca*) does, and leaves the carcass for the scavengers to clear away.”

“But why does he curl his tail upwards?” asked Vi. “He almost looks like the picture of a scorpion.”

She was right. The water-tiger’s tail, so curved, gives him a menacing, scorpion-like appearance.

“For the same reason, exactly,” replied Lemna, “that the big-headed wigglers float head downwards. He has long breathing tubes on his tail, and sticks them well up, to draw air from above.”

By this time the tiger had secured a tadpole and was holding it firmly in his cruel nippers. Escape was impossible, and the poor victim’s struggles grew fainter and fainter as the water-tiger gorged himself on its rich juices. Having finished his meal, the nippers opened and the empty body of the tadpole sank, to end its existence in the maw of the water-shrimp.



THE WATER SCORPION.



"That, at all events, seems quite fair," remarked Jackie. "The tadpole eats the shrimp, and the shrimp eats the tadpole, after the tiger has finished with him."

"But you forget that water-tigers eat shrimps, too, when they get the chance," responded Vi.

"That's all right, though," replied Jackie, musingly. "We do the same, so we can't call it cruel."

"I never thought of that," said Vi, as they left the tadpoles and made their way towards the thicker growth in the middle of the pond.

Here strange creatures met their gaze on all sides: above them were the ripples made by the whirligigs as they shot round and round; then, too, they saw the floating bodies of ogre beetles, one of whom would suddenly shoot downwards in search of food, returning to float again amid the duckweed; bright little boatmen with their vigorous oars shot here and there; stealthy Master Dragon-fly peeped out of the weeds; the Silver Beetle (*Hydrophilus pisceus*), timid and retiring, swam his dog-like course, always keeping well within shelter; the Water-spider (*Agryoneta aquatica*) hustled up and down with air for his silken house; ribbon-like horse-leeches stole about, seeking food; snails ate steadily at the weeds; the little "wigglers" curled and twisted joyfully, furnishing many a tasty morsel for some ravenous enemy lying in wait; and Miss May-fly buried herself in her muddy seclusion. The Pond City was indeed a busy place, for no one was idle: all were intent upon one duty—eating—and each did its best. Now and again the slow, sluggish form of Mr. Newt (*Molge cristatus*) glided along and snapped a tadpole, or rose majestically to breathe and sink again languidly, yawning after such great exertion.

As the children and Lemna plunged into the tangled mass of the forest, Vi was a little frightened; for if the

open bottom of the pond was full of life, the forest was even more so. A hundred creatures brushed past her, and the same continued struggle for existence was taking place. On every side she saw the cruel mask of Master Dragon-fly peering at her with his greedy eyes like some forest goblin.

"Oh, Lemna! Why have you brought us here?" she asked.

"It's fine!" said Jackie. "An enchanted forest, with dragons and things lurking everywhere."

"Don't be afraid, Vi," replied Lemna. "Nothing will harm you. I want to show you yet another monster who inhabits the pond, though not such a large one as the ogre. It is called the Water-scorpion" (*Nepa cinerea*).

"Oh, no, Lemna! I think I'd rather not, please," pleaded Vi, shrinking back.

"Come on," said the valiant Jackie, taking her hand. "It's all right; don't be afraid."

They were now standing amid the dense foliage of the Hornwort (*Ceratophyllum demersum*). About them were thousands of air-bubbles, resting on the leaves, or breaking away and rising upward as some creature brushed past and dislodged them.

"Hullo!" remarked Jackie, turning to Lemna. "I thought you said that your snails always ate up the dead leaves. There is one which hasn't yet been eaten."

"For a very good reason, Jackie," replied Lemna. "It is not a leaf at all, but a water-scorpion."

Vi gave a gasp and wanted to run away, but Lemna restrained her.

"You need not be afraid," she continued. "It will not hurt you. Indeed, he wouldn't take the trouble, for he is one of the laziest of all the pond-dwellers;" and Vi took courage from her companion.

"Well," remarked Jackie, "it is like a leaf, and a nasty, dirty brown leaf, too."

The scorpion, apparently lifeless, continued to hang, and the children examined him carefully.

"How thin he is," Jackie resumed. "He's as flat as a pancake. No wonder I took him for a leaf!"

"What horrible claws!" said Vi. "I'm sure they hurt."

"Those are not, strictly speaking, claws," responded Lemna. "They are his forelegs, but he uses them as claws."

Jackie was instantly interested—he always appreciated weapons of offence in all animals. "I say, Lemna!" he cried; "they are like the spider's pincers, aren't they?"

"Somewhat similar," she replied; "but in this case each leg is a folding claw, like your knife, Jackie. You know what happens when the blade shuts upon your fingers, don't you?"

"Rather!" answered Jackie. "It nips me tight, and pinches. It once used to cut me, but it doesn't now, 'cos the blade is too blunt, and father won't allow me to have it ground."

"The water-scorpion has legs that shut up with a click, just like your knife, Jackie, and hold tightly to anything they close upon, until it is eaten," explained Lemna.

Just then a poor little shrimp, all unconscious of a lurking enemy, came along quite cheerfully, enjoying itself in the thick foliage and hunting just like a dog in a field. The tiny black eyes of the scorpion saw it, the deadly leg closed upon it, and instantly the shrimp was devoured.

"It is lucky," said Lemna, "that those legs are so active; otherwise the scorpion would starve, as he is very sluggish, and won't exert himself."

"In that case," remarked Jackie, decidedly, "he won't live long, for the boatman or the ogre will soon gobble him up."

"Oh, no, they won't," replied Lemna. "Nobody seems to care for him. Here he lives, surrounded by dragon-flies and hundreds of enemies, but they all seem to avoid him as food, and so he just lies in wait



"THERE HE GOES!"

for anything he can catch, and doesn't trouble himself about his neighbours."

"But how does he breathe?" inquired Vi. "Does he never go to the surface for air, like the spider, or the ogre?"

"He is too lazy to do even that," replied Lemna. "Look at the two long hairs which form his tail: those, of course, are his breathing-tubes. He sucks in the

air from the bubbles, to save himself the trouble of going to the surface."

The children watched the scorpion's tail slowly tap a bubble of air from the hornwort and absorb it, and Lemna continued :

" He requires very little air, and can get quite enough in that way."

" What are those marks on his back ? " asked Jackie.

" His wings," replied Lemna. " You see, they are folded up, very much like the boatman's."

" Wings ! " exclaimed Vi, in some surprise. " Then he does fly ? He's not too lazy to do that ? "

" Oh, no," said Lemna. " I daresay we shall see one flying to-day, if we go to the surface."

They passed upward through the close weed, and, emerging into the air, rested upon the slender, forked leaves of the hornwort, which afforded shelter to these unpleasant-looking insects. Pointing to a water-scorpion, who had slowly made its way thither and clambered on to a leaf, she continued :

" He won't be long, now ; he is loosening his wings."

The children watched the process with great interest. When at rest in the water, the scorpion was as ugly an insect as one could wish to see ; but, as his wings unfolded, he seemed to grow more comely.

" There he goes ! " shouted Jackie, as the scorpion rose in the air and flew gracefully over the pond.

" Oh ! " exclaimed Vi ; " what lovely wings. Why, he has two pairs, like a dragon-fly."

The water-scorpion, in all his glory, his outer wings extended, disclosed an underpair, of smoky grey-brown, with a vivid scarlet streak.

" Look at the scarlet edge of his beautifully-coloured body," said Lemna.

Vi nodded.



THE TWO SCORPIONS WERE FACING ONE ANOTHER.

"Yes, it just matches the streak on his wings, doesn't it? He has a black mark down his back, too."

"Just like a pug-dog," responded the ready Jackie.

"Now," suggested Lemna, "you won't think so badly of him, will you?"

Vi looked up with a quaint smile.

"Do you know what old Charles once said?" she asked.

"No," answered Lemna.

"Fine feathers *don't* make fine birds," replied Vi, laughing; "and I think his remark applies to water-scorpions, don't you?"

"Vi is right: 'Handsome is as handsome does,'" said Jackie, gravely.

Lemna joined as heartily as either of the children in the laugh against herself.

"You are both correct," she remarked; "and so am I. Now come down again, for I have something yet to show you concerning the creatures, which will please you, Jackie."

Once more they descended the gigantic weed and entered the dark, leafy forest where the scorpions loved to lurk. But there was a serious disturbance going on, and they peered down, and saw two of them engaged in deadly combat.

"Hullo! What fun!" said Jackie. "Here's a fight!"

"Nasty things!" ejaculated Vi. "They might at least be content where they are, without fighting."

The two scorpions were facing one another, with their forceps-like legs open and ready, slowly moving round. Their intensely black eyes were fixed upon each other as they gave occasional nips with their legs. One had already been wounded.

"What are they fighting about?" asked Jackie.

"Nothing," replied Lemna.



"Yes, they are!" retorted Jackie.

"I will tell you now, what I did not mention before," continued Lemna, gently ignoring Jackie's rudeness. "Scorpions eat one another."

"Like the Indians," said Jackie, who loved to read about Captain Cook.

The struggle was over. One of the combatants had secured his adversary in both his claws and was proceeding to devour him.

"Hurrah!" cried Jackie. "He's going to be eaten up;" and eaten up he was.

"I don't admire his taste," said Vi, who was not at all pleased with this performance. "He won't get much meat out of such a dry, flat body as that. I should think it was hardly worth the bother."

"And yet," replied Lemna, "water-scorpions prefer a scorpion diet to any other food which comes their way."

"Then, all I can say is, that there is no accounting for tastes; and I'm jolly glad I'm not a water-scorpion," responded Jackie.

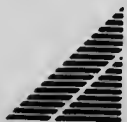
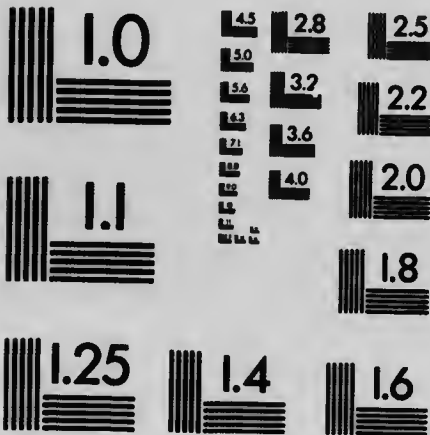
"And so am I," said Vi, with great decision.





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## CHAPTER XIV

### THE DANCE OF THE MAY-FLIES

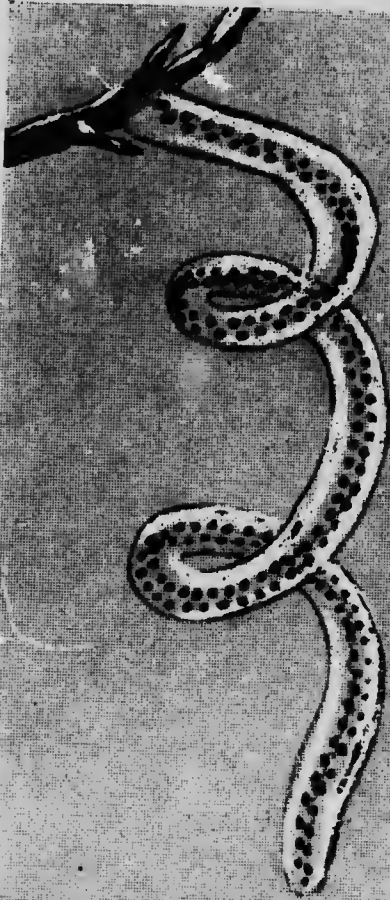
MAY was well advanced, and full of promise for a glorious, blazing June. Now and again heavy storms had come to refresh the earth and stimulate the plants, which lifted their heads joyfully after their cooling bath of rain-drops. Jackie and Vi did not share the joys of the vegetable world ; to them a rainy day was a trial too grievous to be borne with patience. Once it was over, however, they loved to sniff the freshness of the air laden with the smell of growing plants.

"Just like going into a greenhouse," Vi remarked, when she walked with Jackie on a fine evening after a heavy storm.

They had instinctively wandered to the pond, and stood watching the bodies which for a moment rose from the depths to take their store of air, before plunging again to their life below. At first they had been impressed by the stillness of the surface ; but now, as their knowledge increased, they saw in each tiny ripple the evidence of some hidden life which came to prolong its existence by means of the air from above.

"Isn't it funny," said Vi, "that last year we shouldn't have noticed anything in the pond except a lot of water and weeds ; but now we can see the ogres floating, with their tails out of water, and the boatmen, and the tadpoles, and the newts, and spiders, and those horrid scorpions as well ?"

Vi had taken a great objection to the latter, which even the beauty of their scarlet-striped wings had not overcome.



TOAD'S EGGS, ARRANGED IN A DOUBLE CHAIN.

"That's because you are learning to use your eyes," interposed a coarse voice, as Natterjack (*Bufo calamita*) presented himself.

"Why, Mr. Natterjack, what a stranger you are!"

said Vi. "Whatever have you been doing all this time?"

"Singing," replied Natterjack, gravely. "We've been having great concerts for some time, and now our bathing season has begun, and the vulgar toads (*Bufo vulgaris*) have come down, too. This is the toads' holiday."

"Indeed," said Jackie, surveying Natterjack, whose sleek brown coat, with its bright yellow streak down the back, was glowing with colour. "You are looking very well."

"Beautiful!" said Vi. "I never saw your skin so brilliant before."

"Ah!" responded Natterjack. "We always reserve our best clothes for the bathing season. Mrs. Natterjack has just gone down to the pond to lay her eggs."

"How exciting!" said Vi. "Do tell us about them."

"You had better see for yourselves," replied the gay toad, "and judge how far superior we are to the ordinary frogs, who are most untidy in their habits of laying."

"I know," said Jackie. "Toads lay their eggs like newts, and wrap them in leaves."

This was a wild statement, but he wanted to show Natterjack that he knew something about the pond.

"No, they don't," replied Natterjack. "You had better observe, instead of making guesses. There's no guess-work about anything we do."

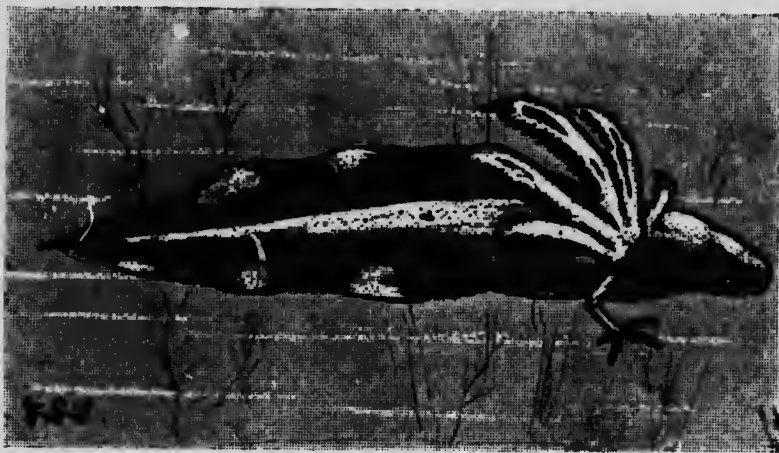
At this moment there was a slight rustle and splash at the edge of the pond, and the children saw Mrs. Natterjack climb out of the water and bustle away.

"Excuse me," he continued, full of importance; "but I must run away now. Good-bye;" and, before the children had time to say a word, he had hurried to join his wife. They heard his long-sustained croak

as he called soothingly to her, as if to reassure her that he was near at hand.

"He's in a mighty hurry," said Jackie. "Let's go and see the wonderful eggs he was talking about;" and, without more ado, they plunged into Pondland, where Lemna, whose beauty seemed to grow more and more pronounced at each visit, welcomed them.

"How lucky that you should come this evening," she said; "for I have something to show you which



NEWT TADPOLE (THE LITTLE PLUME-LIKE GILLS).

you may not be able to see again. One of the most important and interesting events of the whole year."

Vi was in a fever of impatience.

"Oh, please, Lemna, do let us see the Natterjacks' eggs!" she cried. "He says they are ever so much nicer than the frogs'."

"I had almost forgotten them," said Lemna, smiling. "You are right to remind me. At this season of the year, so much is going on that I hardly know what to show you first." She led them to a corner of the pond and pointed to what seemed to be a coil of jelly-like

string, evenly spotted with little black dots. "Those are Mrs. Natterjack's eggs," she added.

The children examined the coil with great interest.

"How funny!" said Vi. "They are awfully like frogs' eggs, but much nicer. Look, Jackie, how carefully they are arranged in a double chain: not all higgledy-piggledy, like the frogs', who just heaped theirs up anyhow."

"But I think, somehow, the frogs were more sensible," said Jackie.

"Why?" asked Vi.

Jackie looked very knowing.

"If I were a newt, I know what I should do," he replied. "I should begin at one end of the string and swallow it all up!"

"Perhaps you are right," remarked Lemna; "but all toads lay their eggs like this. You will be able to tell the difference, in future, between a frog's eggs and those of a toad."

"Yes," replied Jackie; "and the toads don't lay theirs until the frogs' are hatched, do they?"

"No," said Lemna. "The frogs always lay early in the year; then the newts, whose eggs you have seen wrapped up in the leaves; and, last of all, the toads."

"Won't the newt tadpoles be hatching soon?" inquired Vi.

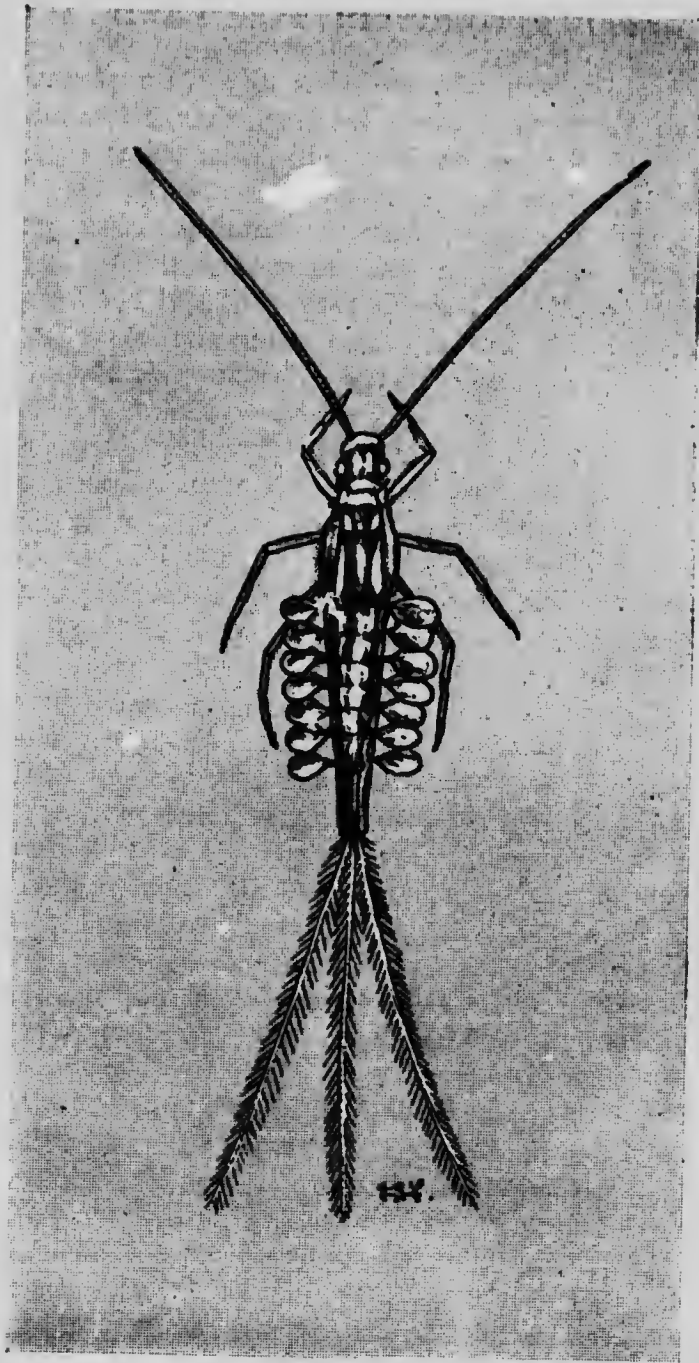
"They are hatched already," replied Lemna, pointing to some tadpoles clinging to the leaves of the water-crowfoot.

"Where are their legs?" demanded Jackie. "These are just like frog tadpoles."

"Of course they are," replied Lemna; "and they go through exactly the same changes."

"Then, how can you tell they are newt tadpoles?" asked Vi. "I can't see any difference."

"There is one, though," said Lemna. "If you look



MISS MAY-FLY.



more closely, you will see that the little plume-like gills are longer and more feathery than those of the frog tadpole; later on they will make other changes, which frogs never do."

Mrs. and Mr. Newt, slowly swimming about, passed the children as Lemna finished speaking.

"I suppose Mrs. Newt is very proud of her family," remarked Vi, "after all the trouble she has taken to wrap up her eggs so that the other animals should not eat them?"

"I don't think so," replied Lemna. "When once she has laid her eggs she doesn't trouble much what becomes of her children."

"Then it's not a bit nice of her," retorted Vi. "She ought to be very pleased to see them swimming about."

Just then Mr. Newt grabbed at one of his family, and gulped it down with an air of great enjoyment.

"Look at him!" said Jackie, in astonishment; "he's eating his own family. What a beast! Fancy, if father had eaten you up, Vi!"

"That's the worst of him," said Lemna, sadly; "he will eat his children, and so will Mr. Newt. However, there are plenty more to hatch, than to be comforted."

"I hate newts," said Vi; "they are so horrid!" and that word expressed her utmost scorn.

"And now," said Lemna, "we must not spend any more time with the newts, for the great event of the year is going to take place."

"Oh!" responded Jackie. "What's that?"

"The May-flies' Dance!" said Lemna, and her face lit with pride. "You are—as I said—very lucky children to be able to watch it."

She led them to the patch where the little Miss May-flies (*Ephemera vulgata*) had been living in their burrows, and they detected an air of excitement and unrest among these mud-dwellers.

"What's the matter with them?" asked Jackie.

Lemna, pointing to one who was just emerging from its hole, replied:

"That little grub has been living there for two years—very quietly, too, and afraid to go out, for fear of the greedy people who are ready to eat it up."

"Poor thing!" said Vi, with ready sympathy. "However, it will now get its liberty, and make up for its long imprisonment, won't it?"

"Yes," replied Lemna, doubtfully; "I suppose so."

"Of course it will," said Jackie, confidently. "But why doesn't it come out? It seems afraid."

"So it is," answered Lemna. "There is a perilous journey before it can reach the surface. It has to pass through the forest, where many enemies are waiting. How would you like to journey through a jungle full of tigers, and snakes, and lions, and wolves?"

"Not at all," replied Jackie, promptly. "I should be awfully frightened."

Finally, the soft body crawled slowly from its burrow, and, with a wild rush, went forth to seek the surface and safety.

"There she goes!" cried Vi. "Oh, what a hurry she's in!"

But the would-be May-fly was doomed to destruction. There was a quick, silvery flash, and the death-dealing boatman snatched the soft morsel and bore it away in his beak.

"What a shame!" commented Jackie. "He might have let it get to the top."

The example of the first budding May-fly was soon followed by others, and from all sides a quick succession of fat, white, soft bodies now crept to the edge of their holes and started quickly upon the perilous journey which lay between them and freedom. A horde of beetles, boatmen, tadpoles, and Master Dragon-fly, the

ogre's ugly child (or Water-devil), and the newts, all waited for the royal feast which was this evening to be theirs.

"Look at the cowards!" cried Jackie, very wroth. "Why can't they leave them alone? The poor little creatures can't fight—I suppose that's why they attack them!"

Still, although many fell victims to the hungry crowd, there were quite a number whose journey was crowned with success, and who reached the surface and the air.

"Come along," said Lemna; "we will see what is going to happen;" and all three rose to the top of the pond, and waited anxiously on the leaf of a sweetly-blooming water-crowfoot.

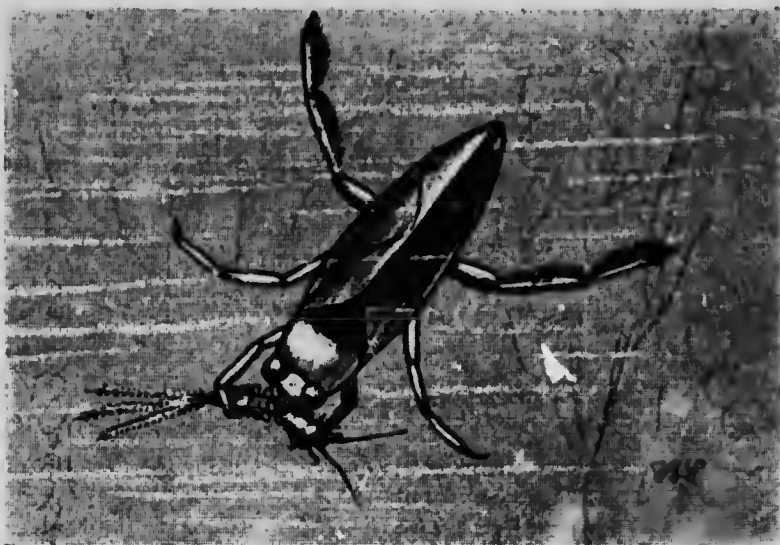
The sun was sinking, hot and red-faced, in the west; the evening clouds were tinged with pink, as if blushing in sympathy with him. The strawberry-like flowers of the water-crowfoot were closing, and the birds were beginning to betake themselves to roost. The beetle world was awaking for its nightly fly, and the moths, who had been dozing in the daytime, tightly pressed against the rough bark of the trees, took courage to leave their hiding-places and unfold their sombre wings to flit about. The hush of approaching night grew deeper, broken only by the chorus of frogs and toads, who sang right lustily from their reedy home. They, too, had cause for rejoicing, for they soon would be full busy in the chase, stalking the night-flyers who were abroad. The faint squeak of a bat struck a sharp note in the deeper bass of the frog concert.

"How lovely everything is!" remarked Vi, as the cool evening breeze stirred her curls.

The stillness disposed them to silence, and they watched the white forms which floated upon the water. One, in particular, lay before them, to which Lemna

## THE DANCE OF THE MAY-FLIES 183

silently pointed. The soft, wet skin slowly dried, and became hard and horny. During the change the insect seemed to grow smaller and smaller, then gently split across the back. Not a movement escaped the children, who gazed with deep interest as the white body before them seemed to grow lighter and float higher out of the water. Then the struggling insect sought to free itself; a final effort, and the creature,



THE DEATH-DEALING BOATMAN SNATCHED THE SOFT MORSEL.

fully winged, flew gently from its case, alighting on a tall reed beside them.

"He's out!" said Jackie, softly. "But why does he fly about?" he continued. "After two years in the mud, surely he wants to enjoy his freedom!"

The insect seemed exhausted, as it slowly dried itself.

"There is another surprise in store for you," said Lemna. "It is not out yet."

"But it is!" persisted Jackie. "I saw it. Look, there is its empty shell floating in front of us."

"It is only half-hatched," explained Lemna; "and that is what is so wonderful about May-flies. The one you now see is what fishermen call the Green Drake. It is going to change before your eyes into a perfect May-fly."

As she had said, the children next saw the moist skin again dry in the air; once more the struggling insect split its covering, and from the rent coat emerged the perfect fly.

"Oh!" exclaimed Vi. "How beautiful it is! Look at its long, hairy tail, and its clear, delicate wings!"

"The Green Drake has gone," said Lemna. "There is its skin, clinging to the reed; and now you see the Grey Drake—the perfect May-fly."

As the May-fly rested awhile, drying her gauzy wings, the children saw the changes taking place all around them. Green Drakes and Grey Drakes were everywhere—the air seemed to be filled with their fragile bodies. Faster and faster they came, and, as their wings grew dry and strong, the merry swarm started to dance in the twilight, now up, now down, in and out of the clustering weeds and rushes; now flying high, now skimming low and brushing the surface of the pond with their long filaments or tails. It was a fairy dance.

But, though thousands were bursting their skins and starting into life, still more fell victims to the dwellers in the pond. Here a ripple and there a ripple told of some hungry tadpole who had snatched the toothsome morsel on the very eve of its freedom. The dance grew fast and furious as the Grey Drakes quickly emerged from their first stage; their darting movements were almost blinding, and confused the eye. Jackie at length cast off the spell which seemed to be upon him.

"I suppose, now, they will want something to eat," he remarked.

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"What can they eat?" asked Vi. "There's no honey for them, because all the flowers are gone."

"Do they eat one another?" demanded Jackie, thinking of Mr. Newt.

"No," replied Lemna; "they are not going to eat anything."

"Then how do they live?" inquired Vi.

"They don't live," responded Lemna; "they die."

"But they are lively enough now!" urged Jackie.

"Now listen," said Lemna, seeing that the time for explanation had arrived. "The May-flies die because they have no mouths, and cannot eat. During the two long years they spend in the mud, they store up just enough strength to come to the air—to dance their merry measure of a few hours, to lay their myriad eggs, and then, ere the sun rises to-morrow, they are gone. When morning breaks, perchance some few sluggards—patriarchs of a few hours—may yet remain; but of all the thousands you see around you to-night, not one shall see the sun at mid-day—all will be gone."

"Ah!" said Vi, with a deep sigh. "Do they spend all that time in the mud, and only live a few hours? How strange it is!"

"Yes," replied Lemna; "two years is a long preparation for a life of as many hours."

A dark shadow now flitted across the pond, followed by others.

"Swallows!" cried Jackie. "What are they doing?"

"Catching May-flies," replied Lemna. "Short as is their life in the air, there are plenty of animals ready to make it shorter. Now come and see how Mrs. May-fly lays her eggs—eggs which will not be fully hatched till you are two years older."

Mrs. May-fly was hovering over the surface of the pond in company with some hundreds of her sex.

Above her danced hundreds more of her companions. Slowly she deposited a little lump, or cluster, of eggs, which fell upon the water, when the mass separated into hundreds of tiny flat eggs, which seemed to spread in all directions and sink into the pond.

"Come," said Lemna, "and witness the sight from below."

Leaving their green leaf they slowly glided to the bottom of the pond and looked upwards, whence, from all sides, came a steady rain of eggs, whirling and dancing as they fell like snowflakes on a winter's day.

"How is it they don't sink at once?" asked Jackie. "They seem to spread out and scatter themselves, so that no two fall on the same spot."

"I am glad you noticed that," replied Lemna, "for it is one of the wonderful provisions of Nature. The little eggs of the May-fly are not glued together, as are those of most insects. As a result, when they fall upon the water, they float before they sink. Then—because they are flat—they do not drop straight to the bottom like a stone, but with a zig-zag movement which scatters them, and thus each egg rests in a different place until it is hatched. The soft white grub then digs its burrow with its forelegs, and retires to wait and eat until its two years are past, and it can rise, as you have seen to-night, to spend its last few hours in the calm of the evening, and leave its legacy of eggs before it dies."

"Do you know, Lemna," said Vi, "I think there is something rather sad about the May-fly's life."

"I don't see that they have any fun at all," added Jackie. "They are always hiding away in the mud, and, when they do get a little freedom, they die."

"A great many people have said the same thing," replied Lemna, with a smile; "but not every one has watched them as you have done."

"Why?" asked Vi.

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"Because they only hatch on one or two evenings in the whole year," she replied. "After to-morrow, or next day, the May-flies' Dance will be over until next year."

There was now a sudden splash above them, and Mr. Froggie came swimming down with vigorous strokes of his long legs.

"I say," he cried, "here's Miss Forman coming to look for you. Hurry up, or you'll get into trouble!"

"Good gracious!" exclaimed Vi. "I'd forgotten all about the time. It is getting quite dark. Good-bye, Lemna."

"Good-bye," repeated Jackie; and, seizing Mr. Froggie's webbed hands, they rose out of the pond and jumped ashore.

Mr. Froggie was right. Miss Forman was visible in the distance, and they both ran towards her.

"We are so sorry," said Vi; "but we forgot all about the time, and it was such a lovely night, and the May-flies were dancing on the pond."

Miss Forman, however, was not disposed to be cross; she had been reading in the garden. After all, who could be angry on so still and calm a night?

"Come along," she said; "only don't stay out so late another time."



## CHAPTER XV

### JACKIE PICKS A WATER-LILY

THE children hurried to the pond as soon as lessons were over next day. The ghost-like dance of the night before had impressed them deeply, and Jackie personally had but little belief in the shortness of the May-fly's life: he was certain that he would find some still dancing. Of course, Vi had to accompany him, and both trotted, hand in hand, to see how the dance had ended.

The pond was quite still, save for the well-known ripples which occasionally stirred its surface; but the May-flies had gone—vanished as quickly as they had come. Jackie peered among the bushes.

"There's not one left, Vi," he said. "But where have they gone to? If they died, their bodies must be somewhere."

"So they are," said Mr. Froggie, who was basking in the pond.

"Oh, there you are, Froggie!" cried Vi. "Do come and tell us what has become of the May-flies."

Froggie looked very comfortable in the pond, but there was also an air of laziness about him which the children had not previously noticed.

"Oh, dear!" he sighed, as he swam ashore.

"Why do you say that?" asked Jackie. "You needn't come if it is such a trouble."

"Where are the May-flies?" demanded Vi.

"I know," said Froggie, mysteriously.

"Then, why don't you tell us?" responded Jackie.  
 "I hate a chap who keeps things to himself."

"Well," began Froggie, slowly, "the fact of the matter is——"

"Oh, do hurry up!" exclaimed Vi. "You are so lazy and sleepy that you can hardly speak."

Froggie was rather offended.

"Why shouldn't I be?" he asked. "It isn't often we get the chance."

"Chance of what?" inquired Jackie.

"May-flies," chuckled Froggie, looking very greedy.

Vi was angry.

"Oh, you horrid thing!" she cried. "Do you mean to say that you've been eating those poor May-flies all night, until you can hardly move this morning? Pig!" she added, with great scorn.

Froggie couldn't understand her at all.

"Well, why shouldn't we? They don't come our way every day—and they are so good!"

He shut his eyes with an air of great contentment at the memory of the feast.

"Don't blink your eyes like that, you greedy thing!" continued Vi, in high dudgeon.

"I can't help it," said Froggie, humbly. "All frogs—and toads, too—shut their eyes when they swallow a particularly nice morsel; it helps them to enjoy the flavour. And, as I thought of those May-flies, I seemed to taste them again."

Jackie, who in no way shared his sister's wrath, was sorry not to have seen the May-flies by daylight.

"It's a good thing for you," he remarked, "that there are no Frenchmen living here, or you'd know what it is to be eaten."

"No, I shouldn't," retorted Froggie.

"Oh, yes, you would," said Vi, tartly. "All Frenchmen eat frogs."

"But they don't eat *our* kind" (*Rana temporaria*), returned Froggie. "They eat the Edible Frog (*Rana esculata*). So you are both wrong."

This was rather awkward for the children, and they felt that Froggie had the better of the argument.

"Mr. Natterjack had his share, too," he added, not willing to take the whole of the blame.

"Of course," croaked Natterjack, who had been peacefully resting in the rushes.

"Then you're as bad as Mr. Froggie!" said Vi.

"Excuse me," replied Natterjack. "I'm not at all bad. No one could have too many May-flies—they are so easily digested. Now, green gooseberries," he added with a smile, "are bad, I believe, for little boys and girls; but I never touch them myself."

The conversation was drifting perilously near a quarrel, when Vi remembered that, after all, they were deeply indebted to Natterjack and his cousin Froggie. The latter gentleman was determined, too, to have the last word, particularly as Vi had called him a pig; so he added, with an absent air, as if addressing the world at large:

"There's no accounting for tastes."

Jackie grew a little uneasy, for he remembered that he had said the same thing when the water-scorpions ate one another.

"I vote we don't say any more about it," he suggested. "It was all Vi's fault."

"Of course it was!" returned Vi, loftily, feeling that it was now her turn to take offence. "It always is."

"Well, so it was," retorted Jackie.

"No, it wasn't!" snapped Vi.

"I say it was," insisted Jackie.

Natterjack looked blandly at the children, whose

faces were very red, and whose little tempers were already roused.

"I think," he suggested, "it would be much better if we didn't interfere with people who haven't done us any harm."

Froggie laughed, and both children looked ashamed: they hated to appear ridiculous.

"Well," said Vi, giving in at last, "I, for one, am not going to say another word about it;" and she assumed an air of extreme goodness and virtue, as if the whole discussion had begun with some one else.

"Hullo!" cried Jackie; "the Yellow Water-lily (*Nuphar lutea*) is flowering. What a long time it has taken to come out!"

"Where?" said Vi, forgetting all about her quarrel.

"There," replied Jackie, pointing to a golden ball which had thrust itself above the surface of the water. "Let's get it for Miss Forman," he added. "She'll be awfully pleased."

"All right," assented Vi, and they ran round the pond to where the opening buds of the lily were showing their heads.

Jackie, heedless of his white sailor suit, lay down at full length on the bank.

"Hold my legs, Vi," he panted, as he wriggled along. Then he stretched out his arm and, with a jerk, clutched the stem of the lily, which broke off short; but, alas! Jackie's hat, none too securely fixed on his head, fell off, too.

"Bother!" he cried, as he recovered himself once more and stood upright, mud-stained, but triumphant. "Quick, Vi, get me a stick."

Now sticks are not always to be found in a hurry when wanted; meanwhile, Jackie's hat, wafted by a favouring breeze, floated serenely on the pond, until it landed securely on a bed of Pondweed (*Potamogeton*

*natans*), whose broad, heart-shaped leaves held it securely.

"Oh dear, Jackie!" cried Vi. "Whatever shall we do? Miss Forman will be so angry!"

"Anyway, we've got the water-lily," said Jackie, in triumph.

Just at that moment old Charles came in sight with a long rake, for it was haymaking time.

"Hullo!" shouted Jackie, in his shrill treble.

Old Charles stopped, and shaded his eyes.

"Cha-a-ar-r-les!" cried Jackie, "I've —lost—my—h-a-a-t!"

"What vur did ye goa to lose ee vur?" the old man demanded, as he came towards them.

"It fell in," said Jackie, lamely.

"Wheer?" questioned the gardener.

"There!" ejaculated Jackie, pointing to his hat.

The old man was much amused.

"Ho-ho! Yew be a pair ov vine pickles, tew be zure!" and, reaching forward with his long rake, he guided the wandering hat shorewards and landed it upon the bank.

"You won't tell, will you?" said Jackie, as he examined his headgear, which luckily had not come to any serious harm during its temporary conversion into a boat. "Now we must fly," he continued, "or we shan't be ready for lunch. Good-bye, Charles, and thanks awfully."

Old Charles touched his forelock.

"Don't ee mention it, Mase' Jackie," he said. "Yew be a little genelman, that yew be; although yew do worrit the life out o' me zometimes;" and, shaking his head sagely at certain memories of Jackie's pranks, he walked slowly away, while the children rushed homewards—a method of progression most usual with them, and, apparently, less fatiguing than walking.

Jackie hung up his dripping hat and boldly attacked the governess.

"Look, Miss Forman!" he cried. "I've brought you a present. Such a lovely yellow——" but he got no farther, for Miss Forman's face indicated anything but pleasure as she eyed him from head to foot.

"Jackie!" she said, in tones of horror, "where have you been?"

Jackie, looking down, saw what had before escaped his serious attention—his sailor suit of white drill was a mass of mud and green stains, acquired on the bank while fishing for the celebrated lily, which was unheeded for the moment. But Vi came to the rescue.

"Oh, Miss Forman," she explained; "it was in getting the water-lily. Jackie did so want you to have it; and he forgot all about the mud, 'cos he wanted to give you a present."

Vi's tact was partially successful; Miss Forman could scarcely be angry if the mud and grass stains had been incurred on her behalf.

"Well, run along and change," he said; "and when you are a clean little boy I'll give you a kiss."

Jackie made a wry face at this proposition; his kissing days—for the present—were over. However, he counted himself lucky to have escaped thus lightly.

Meantime, the governess arranged the treasure in a vase and placed it upon the table, while Vi ran away to wash her very grubby little fingers. In due course Jackie returned and presented his cheek to Miss Forman for his unwelcome reward. He gave somewhat of a sigh when the ceremony was at an end, and they sat down to their early dinner, which on this occasion had been served in the nursery, as there were guests downstairs. Jackie sniffed.

"They've got tippy-cake for lunch: I can smell it,"

he observed. "May we have some when they've done with it?" he asked, turning to Miss Forman.

"Don't be greedy, Jackie," replied his governess, who was likewise sniffing in a somewhat marked manner.

"It's jolly strong!" said Vi, who had also detected the odour.

"I'm afraid it won't be good for you," remarked Miss Forman. "Wine and brandy are bad for little children."

"Except when they go by train," interposed Vi, to whom a railway journey was not a matter to be lightly entered upon.

The tipsy-cake was, indeed, a strong one: its fragrance seemed to fill the room. Miss Forman opened the window, fearing perhaps that the fumes might have a bad effect upon her charges.

At this moment the door opened, and Jackie's mother, accompanied by several of her guests, entered. They paused on the threshold and sniffed. Jackie's mother looked grieved, and eyed Miss Forman narrowly, not to say suspiciously.

"What a strange smell!" she remarked. "Do you notice anything, Miss Forman?"

"It's the tipsy-cake you are going to have downstairs," said Jackie, "and Miss Forman says it's much too strong for us, and would make us ill."

"Don't talk nonsense, Jackie!" replied his mother, sharply. "There is no tipsy-cake in the house."

Jackie's father, who had just come in, began to laugh as he went up to the vase on the table. Taking out the cherished water-lily, he held it to his wife.

"Good gracious!" she exclaimed; "it smells of brandy!"

"Of course it does," he replied. "The villagers call it the Brandy Bottle, because of its smell."

Jackie's mother looked much relieved, and no longer regarded Miss Forman with suspicion.

"I don't think I'd have it in the room, if I were you," she said, gently.

Jackie's face fell.

"Oh! But, mother, dear, I took such a lot of trouble to get it for Miss Forman, and she was so pleased!"

"Never mind, Jackie," she replied, kindly; "you and Vi shall give Miss Forman some roses. I am sure she'll like them much better;" and the offending flower was removed, and all was peace once more.

As soon as dinner was over, Jackie and Vi presented themselves to their governess.

"Please, Miss Forman," said the latter, sweetly, "may we go out?"

"Yes; but you mustn't get into such a mess again, or I shall have to come with you, and see that you keep out of mischief."

"I promise!" said Jackie, hurriedly; and, full of good resolutions, they ran away, leaving Miss Forman to her endless task of darning the tiny stockings, which would develop "potatoes" and "Jacob's ladders," in spite of all her care.

When they arrived at the pond, they plunged instantly into the cool depths of the submerged forest, for they had much to tell Lemna about their adventures of the morning.

The fairy was greatly amused.

"Yes, Jackie," she remarked, after hearing all he had to say; "sometimes the most beautiful flowers have the most unpleasant smell."

"That's silly!" returned Jackie. "Why can't they all be like roses, and smell nice?"

"Because each flower tries to attract the insects," said Lemna, "and has to 'smell nice' from an insect's point of view—or smell. There are some called *Stapelia*, you know, that have an odour of bad meat."



"How horrid!" commented Vi. "I shouldn't think anything would go near them."

"You are wrong," said Lemna. "Flies are very fond of decaying meat, as you know—it is their business to help to dispose of it. Therefore, when they smell the flower, they conclude there is something for them to eat, and crawl inside, which is just what the flower has been trying to induce them to do."

The conversation was here cut short by a commotion in the forest, which set the leaves swaying and released the tiny air-bubbles. A hundred lodgers came rushing from their green seclusion, seeking refuge elsewhere.

"Hullo!" said Jackie. "What's the matter?"

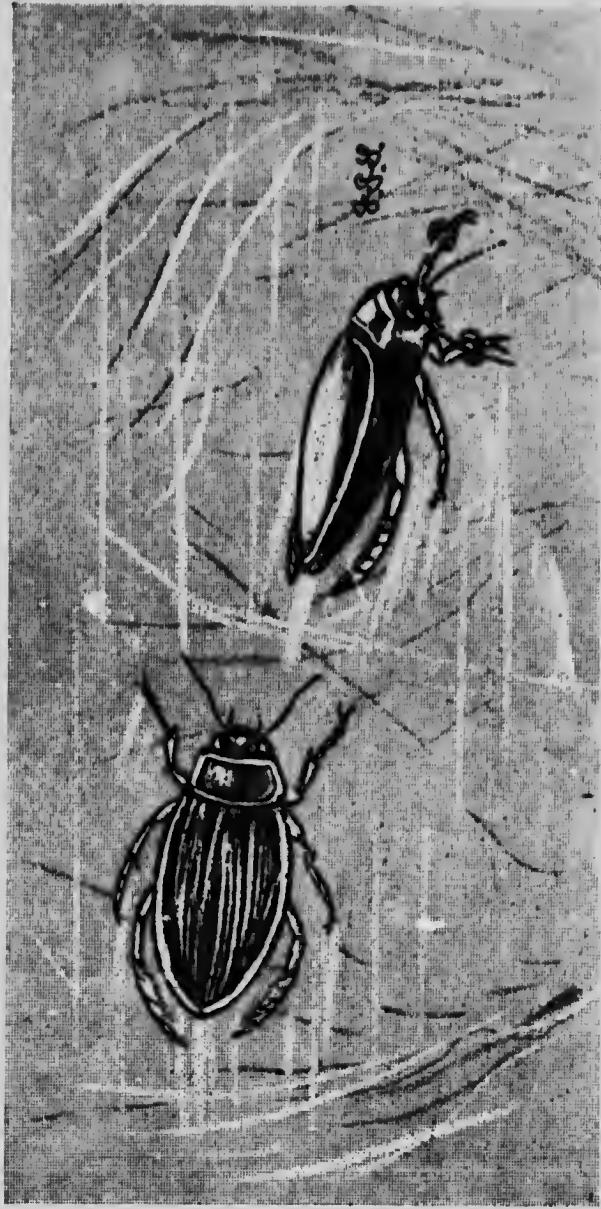
Something serious was evidently going forward, for even the lazy water-scorpions crawled discontentedly away, their "forceps" raised in high displeasure. The cheery boatman watched this exodus with great satisfaction, and profited thereby to make a raid upon the evicted tenants, and thus secure for himself an unusually good lunch. Those which escaped his attentions fell into the clutches of the young Dragon-fly family, who had crawled out, slowly dragging their ungainly bodies along the muddy bottom. Lemna peeped into the waving tangle of weeds.

"It is Mrs. Ogre," she explained. "She is having a fight with her husband."

"How very wrong!" said Vi, in a shocked voice. "Doesn't she know that she has to love, honour, and obey him?"—she had once been a bridesmaid, and the marriage service had made a lasting impression upon her young mind.

Jackie was much amused.

"I am glad he has somebody that will fight him," he replied. "He has it all pretty much his own way down here, and it won't do him any harm; he's a jolly sight too cocky!"



MRS. OGRE HAVING A FIGHT WITH HER HUSBAND.

For a moment the tangled weeds opened, and the head of the ogre was thrust through as he hurried out, followed by his wife, who was decidedly the larger of the two. She was evidently determined that he should not escape.

"Cowardy, cowardy custard!" cried Jackie, quite joyfully, and pointing derisively.

The ogre was rowing as hard as he could, but in the previous struggle with his wife he had injured one of his oars—or, to speak more correctly, his wife had done so for him; consequently, he was only able to swim in circles. Mrs. Ogre was very determined. Time after time she charged and grappled with him, seizing him with her forelegs and inflicting serious nips which crippled him still more. Nevertheless, he made a good fight; but his wife being—as is often the case—larger and more powerful, she was bound to be victorious in the end.

Vi for her previous quotation from the marriage service. She now saw but a direct attack upon one of the most greedy of the pond-dwellers: a beetle who had hitherto been to the pond as a sort of shark, hungry for, and eating, any of the weaker creatures which had come his way.

"I'm not a bit sorry for you," she said, addressing the now helpless ogre. "It serves you right. How do you like to be bullied as you bullied the poor little harmless shrimps?"

Madame Ogre now made her last charge and inflicted a final bite, but suddenly retreated in disgust; at the same time, the foetid odour of rotten eggs became painfully noticeable.

"Ha-ha!" Jackie laughed, and his eyes brightened. "He's given her a mouthful of that beastly stuff he squirted all over my hands that day; and she doesn't seem to like the taste of it."

It was indeed the ogre's final defence; but, though he had delivered it with great precision, he was unable to do more, for the last bite had killed him, and his body shot upwards to the surface and there floated, dead, and unmourned by the inhabitants of the pond. Mrs. Ogre took her self-imposed widowhood very easily, for she proceeded to lunch off the body of her late husband, and was joined in the repast by several of her kind, who dashed at the carcass, now from one side, now from the other, and sent it bobbing about like a cork.

"I don't think it very nice of her to eat her husband, though," said Vi. "Will she get another?"

"Yes," replied Lemna.

"And will she eat him too?" asked Jackie, delighted at the prospect.

"Probably," rejoined Lemna.

"I wonder at that," said Vi; "but she's not a nice beetle. See what a big bite she has just taken!"

Lemna smiled.

"You see, Vi," she replied, "if Mrs. Ogre hadn't eaten her husband, he would possibly have eaten her."

"Oh!" said Vi, much relieved; "then, of course there is some excuse for her, isn't there? But, Lemna, why do these horrid ogres live down here? They seem to spoil all the fun, and nothing ever happens to them; they always get the better of everybody else."

"Not everybody," said Lemna. "The ogre himself has an enemy—tiny, silent—who is more powerful even than he is."

Jackie looked up in great surprise.

"Hurrah!" he cried. "I'm so glad! I hate to see the ogres having it all their own way."

Lemna pointed to one of the beetles, who certainly looked very sick and weak.

"Do you see that fellow?" she asked.

"Yes," replied Jackie; "he doesn't seem very comfortable."

"He isn't," responded Lemna. "The ogre's pest has found him, and he is doomed to death."

"What's the matter with him?" asked Vi.

"There is a tiny creature called the Water-mite" (*Hydrachna globus*), explained Lemna, "who is a near relative of our friend the water-spider, and has six legs—not eight, like most spiders. The little fellow has a big sucker instead of a mouth, and gets underneath the wings of the ogre, when he begins to suck, and suck, and suck, until his victim dies."

"Horrid for the ogre!" cried Jackie. "Can't he do anything?"

"No," replied Lemna; "I'm afraid he can't. The little mite becomes a lodger, and feeds at the ogre's expense."

"I know!" said Jackie. "It's like the story of the Spartan boy, who had a wolf under his cloak which ate him up, and he was too brave to say anything."

"Yes," replied Lemna; "that is very much the same thing."

"Anyhow," said Vi; "I'm not a bit sorry for the ogre. The Spartan boy was brave; but the ogre is a coward, and always attacks poor weak things who can't defend themselves." Then, after a pause, she added: "Oh! I do hope there are heaps of water-mites in the pond!"

## CHAPTER XVI

### THE SNAKE IN THE GRASS

JACKIE and Vi were standing at the edge of the pond—when, indeed, were they not at this favourite spot? Once having fallen under the spell of Lemna, they found it difficult to keep away. On the present occasion they had run down after their morning lessons to gaze at the pond she had taught them to love.

“Look!” said Vi, suddenly, and in great excitement. “There’s a wee baby frog!”

“And there goes another!” cried Jackie.

“And another!” added Vi.

In fact, the grass was alive with tiny, yellowish-brown froggies, hopping about in all directions. Not only on the ground, but in the pond as well, the merry little fellows were jumping or swimming about, freely using their long hindlegs and enjoying themselves immensely. Both children crouched to get a closer view of the new-comers, and found hundreds of tiny frogs that had hitherto escaped their notice; indeed, had the creatures remained quite still, they would not have been seen at all.

“Plenty of them, are there not?” said the well-known voice of Mr. Froggie. “A very nice little family, and one that does us credit!”

“Oh, dear Mr. Froggie!” exclaimed Vi; “how proud you must be of all the frog-babies!”

"I am," he acknowledged, with great importance. "Frogs are among the most wonderful creatures in the world."

"I say, Froggie," she continued; "how knowing of them to sit down so close to the plants and the earth! We could hardly see them until we got quite near."

"They know how to take care of themselves," replied Froggie, winking one of his bright, gleaming eyes. "In fact, we all do, and are most careful that our coats shall be of the same colour as the place we live in."

"Like khaki," suggested Jackie.

"I don't know what you mean," said Froggie; "but I daresay you are right."

"Well," added Vi, "khaki is just the colour of sand and rocks and things, and that's why our soldiers wear it, so that they won't get shot."

"Then you are perfectly right," replied Mr. Froggie; "and the frogs are even better off than the soldiers you are talking about; because if our coats are not of the right colour, we sit down for awhile and change them."

"Do you mean to say that frogs take their clothes off, like Natterjack?" inquired Jackie.

"No," replied Froggie; "though they do change them at times, when they grow out of them; but what I mean by changing their coats is—changing the colour. If a baby frog—or a grown-up one either, for the matter of that—finds his colour too light or too dark for his home, he just waits awhile, and the colour changes of its own accord."

"That's like the chameleon," said Jackie.

"Yes," replied Froggie; "a frog is like a chameleon—only, of course, he's not so clever. Still he's able to get quite dark or quite light, if necessary. In a

dark place they become quite black, and in a light place almost yellow."

"That's very wonderful," said Vi. "If little boys and girls are shut up in the dark they become pale; and if they are out in the sun a lot they turn dark. It seems just the reverse with baby frogs."

"I say," remarked Jackie, who had carefully examined the little company of frog-babies nestling together in the grass; "they've all got a dark patch behind their eyes; and so have you. I never noticed it before. It's very pretty."

"So they have," agreed Vi.

Mr. Froggie looked very wise.

"Now, I wonder," he asked, "if you know what that dark patch is?"

"No," replied Vi. "I thought it was just a mark, like the spots on a leopard."

"Then you are wrong," said Froggie. "It is an ear."

"But there's no hole in it for them to hear with, like we have!" said Jackie. "Are they all deaf?"

"Perhaps they are, and that's why they croak so loud at night," suggested Vi.

"No," replied Froggie; "that's not right, either. The dark patch is like a drum, and they can hear very well with it. If they had ears, as you have, when they go into the water they would soon be deafened. When you are under water you hear things more distinctly; and, if they had your ears, the splash of another frog jumping into the pond—or, rather, the noise of the splash—would hurt them very much."

There was now a great disturbance in the grass near by, with much croaking, and all the little frogs, alarmed at the noise, began to hop back to the pond as fast as they could. Froggie himself, evidently afraid, fled without a word of explanation. Jackie and Vi, looking



in the direction of the rustling noise, were appalled to see, sliding with easy grace amid the grass, a snake. They did not altogether like snakes, except in story-books, having been brought up—as most children are—to consider them loathsome and deadly.

It was a beautiful creature, with a fair, round head ; his neck was of a brilliant yellow, and his long, graceful body of a dark-green. He raised his head for a moment to look around with his black, beady eyes, and they saw an ivory throat mottled with black.

“ Oh, Jackie ! ” exclaimed Vi ; “ I’m very frightened. Is he going to sting us ? ”

Jackie, too, was alarmed, but would not confess to fear. As he held his sister in a protecting embrace, a delicate, black, forked tongue shot out of the snake’s jaws.

“ Look at his sting ! ” he cried. “ No wonder the froggies ran away ! ”

But they had not all escaped, as Mr. Snake knew. His eyes were on the alert for stragglers, and that was why he raised his beautiful golden head. He detected a poor little trembling froggie huddled up in the grass.

“ Oh ! ” ejaculated Vi, in an awe-struck whisper ; “ I do believe he’s going to eat that poor thing ! ”

Vi was right. The snake had seen the defenceless baby, and was preparing to devour it. By instinct, the tiny victim divined its fate, and turned its back upon its enemy, trying to hide from those relentless eyes. The smooth green body approached nearer and nearer to the trembling creature ; the glossy head was raised ; it was now quite close. A sudden dart, and the poor baby frog was struggling in the jaws of the snake. The frog, as it was seized, uttered a shriek of anguish as heartrending as the terror-stricken cry of a child : a desperate, hopeless appeal for

Jackie and Vi, as if rooted to the spot, felt unable to move. The long hindlegs of the frog struggled vainly in the snake's mouth, but its efforts were useless. The reptile had begun to swallow his prey, and, bit by bit, the tiny creature disappeared, distending the snake's jaws as it did so, and swelling out the tapering neck until the form of the poor little froggie was lost in the rounded green body of his devourer. Then, with the same easy grace, the snake swept away, to sleep until his meal was digested. Vi gave a shiver as the creature lost itself in the grass.

"Ugh!" she exclaimed. "How horrid! I don't want to see that again, ever!"

"Beastly!" said Jackie. "He might have killed it first, and not eaten it alive. I call it cruel!"

The boom of the luncheon-gong now warned them that it was time to return, and they sadly retraced their steps towards the house. At their early dinner the children did not fail to mention the morning's incident to their father, who was always a sympathetic listener to their tales of the animal kingdom.

"I say, father," began Jackie, as soon as he had said grace, "we've seen a snake!"

"Such a big one!" added Vi, anxious to have a share in the recital.

"And it had a yellow head," continued Jackie, impressively.

"Oh, yes; and a green body," returned Vi.

"Hush!" said Miss Forman; "you mustn't get excited."

"You'd have been excited," said Jackie, warmly, "if you'd seen it putting its stinger out at you, as it did at I and Vi!"

"Me and Vi," corrected his mother, gently.

"And me and Jackie saw it," said Vi, turning to her mother.

The latter sighed.

"*I* and Jackie saw it," she said. "*Me* and Jackie is not grammar."

"But we saw it, all the same," urged Jackie.

"Now, Jackie, perhaps you will explain yourself," said his father. "You've seen a snake?"

Jackie nodded: his mouth was full.

"Yes," said Vi. "It was long and green, and it had a yellow head, and it ate up a little frog!"—triumphantly, for she was thus the first to tell the sad news.

Jackie swallowed hard, and took a gulp of water from his silver mug. Then he was able to speak.

"He swallowed it alive, and didn't bite it, either!" he continued with meaning, as he looked towards Miss Forman, who had frequently scolded him for his method of eating.

Vi, feeling that it was again her turn to speak, added:

"And, oh! he had such a stinger! And he kept putting it out of his mouth!"

"What do you call it?" asked her father.

"A stinger," repeated Vi.

"That was his tongue, my dear," he corrected.

"Snakes never sting."

"But can't he hurt any one with it?" asked Jackie.

"No," replied his father.

"I know!" said Jackie, his mind recalling Uncle Jack's stories: "he's got poisonous teeth, and when he bites he kills peoples."

"Persons," corrected Miss Forman.

"I'm afraid you are wrong again, Jackie. He has no poisonous teeth, and is quite harmless."

"I don't think the little frog thought so," commented Vi.

Her father laughed.

"You are right, Vi. I am quite sure the little frog thought him anything but harmless."

"And he gave such a shriek, too, when the snake caught him," added Vi.

"My *dear* child! How can you talk of such things!" exclaimed her horrified mother.

"Why not?" asked Vi, opening her blue eyes



"BEFORE THEY CHANGE INTO GNATS THEY FLOAT HEAD UPWARDS."

very wide. "Aren't you sorry for the poor little frog? I am!"

"What you heard, Vi," explained her father, "was the frog's cry of terror, which is very pathetic. Not a bit like their croaking, is it?"

"Oh, no!" said Jackie. "That's awfully jolly."

"What kind of snake was it, father—an adder?" asked Vi.

"No, you little silly! Adders can bite. Don't you know that?" retorted her brother.

"Hush!" said Miss Forman. "You mustn't speak in that manner."

Jackie became silent, which was just as well, for his father's eye was upon him.

"It was a common grass-snake, Vi," the latter replied; "a very gentle, harmless creature."

"Except to frogs," added Vi, who did not at all endorse her father's view.

"And now, children, go on with your dinner," said their mother. "You are eating nothing. Don't let me hear another word until you have finished your pudding."

Two small heads were bent over two plates, and the meal proceeded in comparative quiet until the pudding was removed.

"Please, mother," then requested Vi, "may I have some little froggies to take to bed with me?"

Miss Forman gasped.

"Certainly not!" replied her mother. "Whatever makes you want such horrid, slimy things?"

"They aren't horrid, and they aren't slimy," said Jackie, bravely defending the frog colony. "They're nice, smooth, gentle little creatures and it's such fun to see them hop."

"And they eat worms and flies," added Vi. "You might keep them in the kitchen: cook says there are heaps of flies there."

"I am sure cook wouldn't like them in her kitchen," said her father; "but you might keep them in a jar in the greenhouse."

Jackie looked inexpressibly shocked.

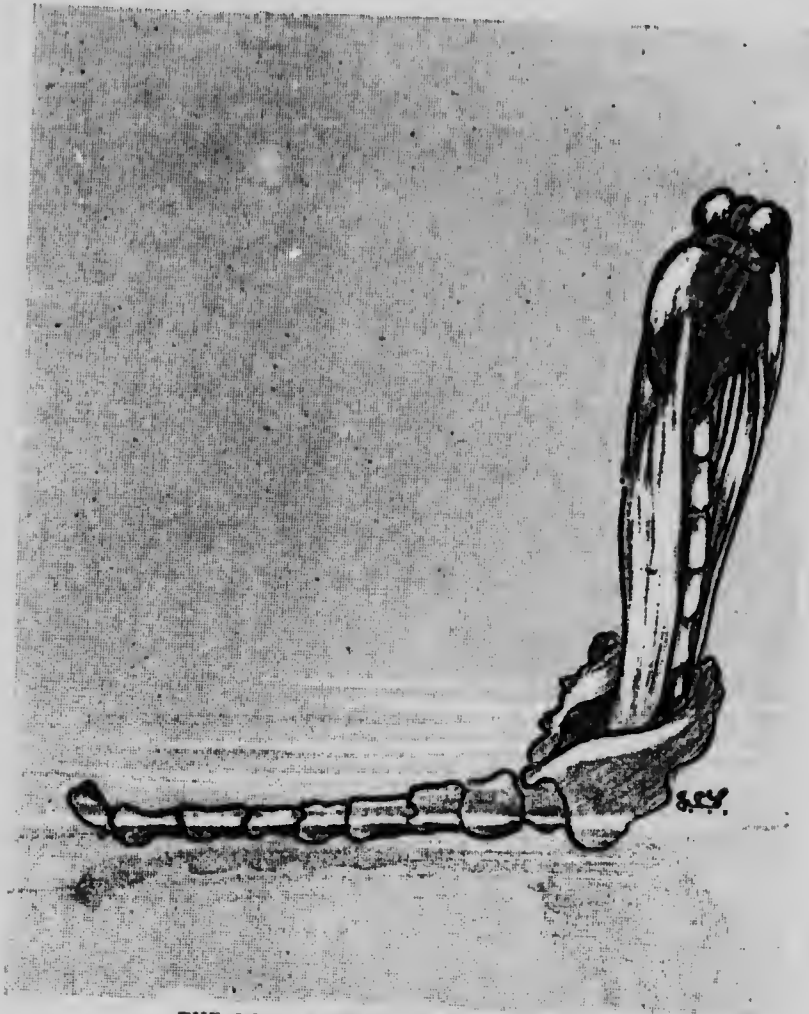
"Oh, father!" he said, more in sorrow than in anger. "You wouldn't be so cruel!"

"Why?" asked his father, innocently.

"Because," said Jackie, "they would not be able to get out of the jar to feed; and how could they get

flies or worms in the greenhouse? You know all the plants are high up on the stages."

"So they are, my boy; I never thought of that,"



THE BODY ROSE HIGHER AND HIGHER.

returned his father. "Well, perhaps, after all, it will be better not to have them as pets; I daresay they are happier where they are."

Miss Forman's countenance beamed with pleasure; she had been spared the plague of frogs, and was duly grateful.

"I think so," said Vi, with great decision. "We can always go and look at them in the pond, can't we?"

"Yes, if you don't get your clothes in a mess," replied her mother.

Miss Forman's face again fell as she recalled the appearance of Jackie's suit on the day he brought her the water-lily. However, having been mercifully spared the invasion of frogs, she accepted the inevitable.

"We'll be very careful, won't we, Vi?" said Jackie, with extreme virtue.

"Yes," replied Vi, meekly; and Miss Forman found it hard to believe, from their expression, that they could ever have come home even with muddy shoes.

"And now," said Jackie, "we're going to look at the frogs. May we, mother; we've quite finished?"

"Very well. Say grace, and then you can go," replied his mother, smiling.

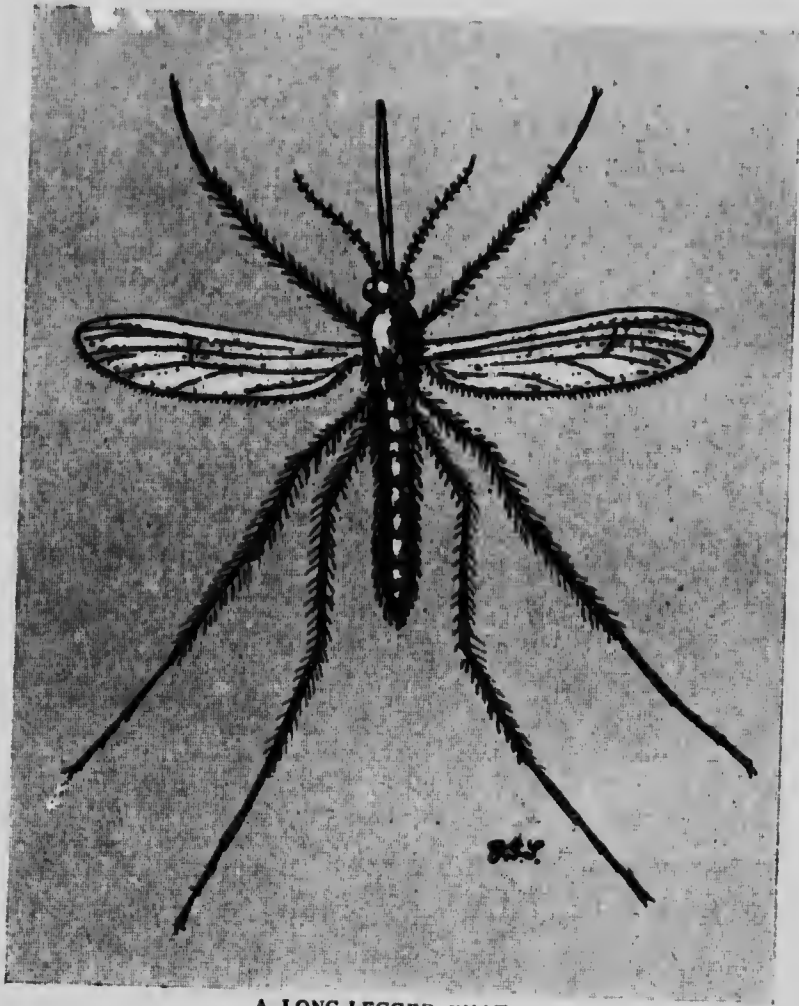
In a very few minutes they were both tearing off to the pond, as only children who have eaten can do. They soon found the baby frogs hopping about, catching flies or hiding away in the rushes, now and again returning to the water which had been their cradle, to moisten their skins, the better to absorb the life-giving air. Jackie and Vi were deeply interested in their movements, when suddenly the latter gave a start, and looked at her hand.

"Oh, Jackie," she said, pointing to a little red spot; "some horrid insect has stung me!"

"So it has, the brute!" replied Jackie. "I wonder what it was."

The place was very uncomfortable, and would itch, whereupon Vi very naturally scratched it, which in-

creased the irritation. Jackie next felt a similar sharp stinging sensation, and found that he, too, had been the victim of an unseen foe.



A LONG-LEGGED GNAT.

"I think it's a gnat bite," he remarked. "It feels like one."

"It's very nasty!" responded Vi.  
Jackie was thinking.



"Let's hear what Lemna has to say about it," he said, "'cos those wigglers are only gnats; perhaps they're coming out;" and without more ado they betook themselves to Lemna's palace, where the fairy received them with a smile.

"Please, Lemna," said Vi, "I've been stung by a gnat."

"And so have I," added Jackie.

"No, you haven't," replied Lemna.

"But we have!" persisted Jackie, holding out his wrist.

"You have been *bitten* by a gnat," she corrected; "not stung. Gnats never sting."

"It hurts just the same, though," said Vi, feelingly, "whatever they do!"

Lemna smiled.

"The wigglers are hatching," she explained, "and that is the cause of your trouble. Come with me, and we will watch them leave the water."

They rose to the surface of the pond, and once more climbed on to the leaf of the pondweed in order to watch the proceedings.

"Hullo!" Jackie exclaimed. "Whatever is the matter with all the wigglers? They are floating with their heads in the air. Don't you remember, Lemna, you said they breathed through their tails? How can they do so now, when they keep their tails under water?"

"The wigglers have been growing since you first saw them," replied Lemna. "Before they change into gnats they turn and float head upwards?"

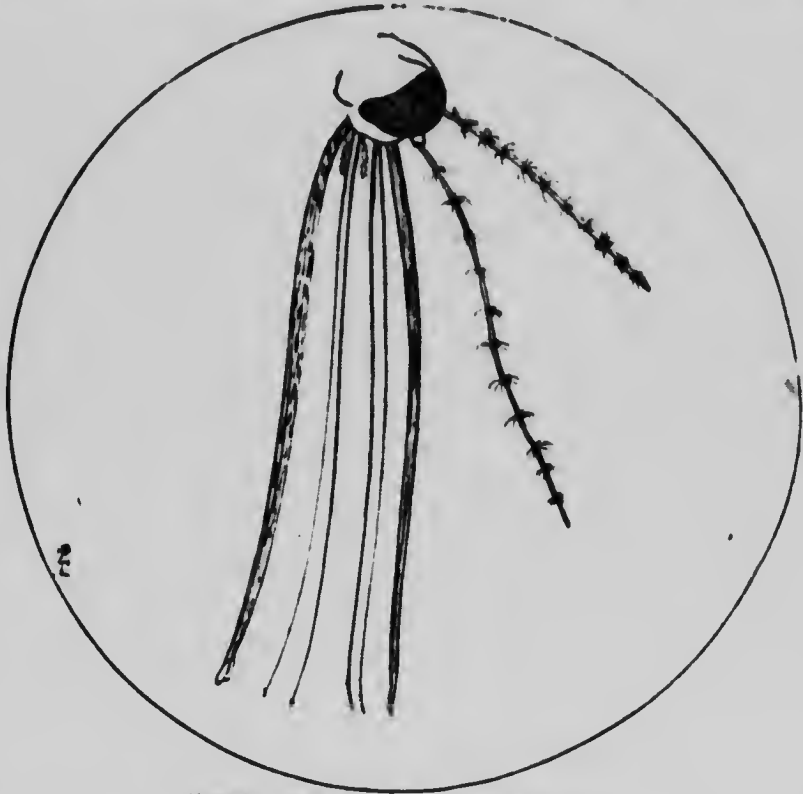
"Then how do they breathe?"

"Two little tubes, growing out of their heads, enable them to do so," explained the fairy, pointing to a wiggler whose head was just below the surface.

"I see one!" said Vi, pointing. "He has two little horns growing out of his head now."

"Those are his breathing-tubes. Watch him very closely," said Lemna, "for he is going to change into a gnat."

The children waited impatiently, and presently the



"HER LIP HAS A BRISTLE UPON IT."

wiggler seemed to grow lighter, for his head began to rise out of the water, and to bob about like a cork.

"He's coming out of the water," said Vi, in a state of great excitement.

As the wiggler's head rose clear, his skin began to dry and crack, exactly as had been the case with the

May-flies. Jackie noticed this at once. The body rose higher and higher, and the skin cracked more and more, till, finally, a long-legged gnat crept from the outer case, which now floated like a little raft on the water and supported its former occupant.

"What a beautiful boat his skin makes!" said Vi. "He can float upon it."

"Yes," replied Lemna; "till his wings are quite dry, he will use his former skin, and then he—or, rather, she, for this is a lady gnat—will fly off with her gentle buzz; and perhaps," she added, with a mischievous smile, "she will bite some little girl's hand."

"How do you know it is a lady gnat?" asked Jackie.

"You can always tell by her mouth, or jaws," explained Lemna. "Only the ladies bite."

"Oh!" exclaimed Vi.

"The gentlemen's jaws are very weak and soft," continued Lemna. "The ladies cause all the trouble. Now, if you look at her mouth, you will find that the upper lip has a long sort of bristle upon it."

"It has," said Vi.

"That is a tiny tube," Lemna resumed; "and on her lower jaw she has a pair of hooked lancets."

"I know," interrupted Jackie: "Doctor Jones carries lancets in his pocket—I've seen them. They're awfully sharp; much sharper than my knife."

"Then," continued Lemna; "she has also a pair of tiny saws, with which she can cut. When she bites she stabs your hand, and saws a little hole in it; into this she puts her bristle-like tube, and draws up the blood—pumps it up, in fact, with those long hindlegs, which she moves up and down like pump-handles; and that is what hurts you."

"Then she has no poison at all?" inquired Jackie.

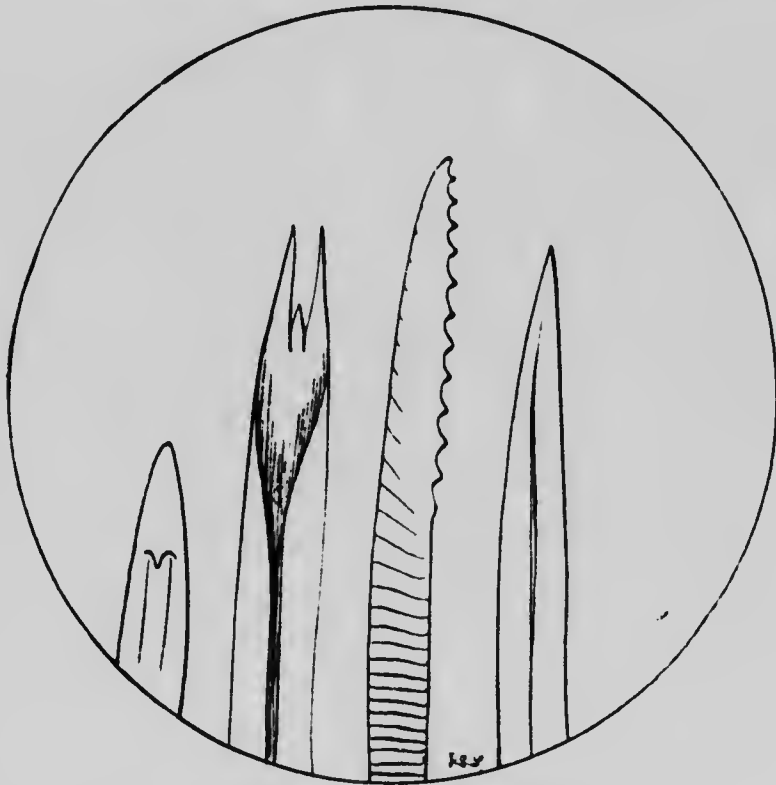
"No," replied Lemna.

"What are the gentlemen like?" he asked.

"There's one," said Lemna, pointing to another gnat, who was also floating upon his wiggler-skin.

"He's ever so much prettier!" said Vi. "Look at his beautiful, fluffy feelers."

"Just like plumes, aren't they?" added Jackie.



THE GNAT'S SAW AND LANCETS.

"Those are his antennæ," Lemna explained. "He is quite harmless, and, as you say, very pretty to look at."

"Rather!" replied Jackie.

"Poor things!" continued Lemna. "They have to be very careful as they rest on their little boats,

because a puff of wind would blow them over, and they would be drowned."

"Can't they swim?" asked Jackie, in astonishment. "They ought to be able to, after living all this time in water."

"No," replied Lemna; "when they grow into gnats they lose the habit."

"That does seem funny!" remarked Vi.

"Now, look at that lady gnat," said Lemna, pointing to one on a rush close at hand. "She is very busy."

"What is she doing?" asked Vi.

"Laying her eggs," replied Lemna. "You will notice that she has crossed her hindlegs in the air. That is to guide the eggs to their places."

"What funny eggs!" remarked Jackie. "They are pointed at one end."

"Yes," said Vi; "and she seems to keep all the pointed ends upward."

"She is building her egg-raft," replied Lemna. "Those eggs are covered with a sticky substance so that they hold together. Then, the pointed ends are turned upwards, because at the other end—the blunt end—there is a little lid. When the young wiggler inside is ready to come out, the lid opens, and lets him into the water."

"Wonderful!" exclaimed Vi. "But doesn't the raft ever get wrecked, or turned upside down?"

"No," replied Lemna; "it is a little lifeboat, and always rights itself if overturned."

"Just like those bottle-imp toys that you can make lie down," said Jackie.

"Exactly," replied Lemna.

"She seems to be laying lots and lots of eggs," remarked Vi. "How many does she lay?"

"Two or three hundred," Lemna answered.

"Oh!" ejaculated Jackie. "How we shall get bitten when they all come out!"

"But they won't all come out," Lemna explained. "Mr. Ogre, and the boatman, and all the hungry people below will see to that."

"I'm very glad," said Vi, vigorously scratching her hand. "After all, they are of some use!"

## CHAPTER XVII

### POND-SKATERS AND DRAGON-FLIES

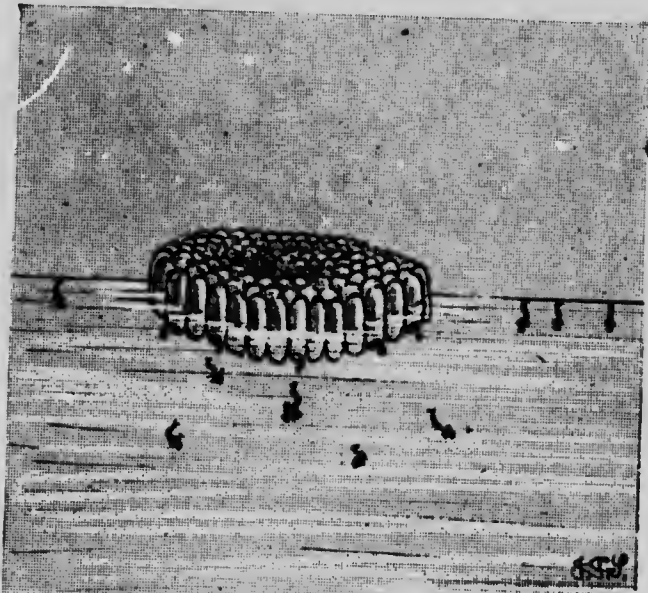
IT was a blazing June day; a day when the sun beats down with all his strength, and sends the dogs, with lolling tongues, to shady corners where they can lie down. A day beloved of the gay throng of butterflies, whereon they may flit and unfurl their velvet glories without fear of any passing shower. In short, it was summer, in the fullest sense of the word.

Jackie and Vi had cast away shoes and stockings—somewhat to the relief of Miss Forman, who for the moment was allowed a brief rest from endless darning—and sandals were the only foot-wear. But even the heat could not quench the lively activity of the children; they seemed to grow in it, and expand. Jackie had already the hues of a boiled lobster, while his bare legs were turning a healthy bronze. Vi was less fortunate; the sun caused her skin to peel, in spite of large hats and much cold cream, milk of cucumbers, and other remedies.

“I tell you what,” said Jackie; “it’ll be cooler by the pond. Shall we go?”

Had it been freezing, and the pond thickly covered with ice, Jackie would have found some pretext for visiting the favoured spot. The proposition was carried by acclamation, and the two little pairs of sandalled feet hurried off at a speed which would have

thrown an ordinary person into a gentle perspiration even to look upon. But Miss Forman did not see them; she had taken up her position beneath the cedar-tree and was dozing peacefully, with occasional intervals owing to the presence of Mrs. Gnat, whose drowsy buzzing was far more soothing than her more pointed attentions. Jackie had informed her that



"THE TINY WIGGLERS ARE COMING OUT OF THEIR EGGS."

"their bark was not half so bad as their bite"; and Jackie was a dealer in proverbs.

Once at the pond, they took their plunge into its cool forest, and found, as they had expected, that it was certainly more pleasant there. The weeds had risen to the occasion, and now almost entirely roofed the surface, thus producing for the children a delicious feeling of being in quite a new state of existence.

"Oh, Lemna!" exclaimed Vi. "How refreshing it is down here! And how beautiful you are to-day!"



"Yes," added Jackie, who was not usually so observant in such matters; "you get beautifuller every day."

This was a pretty compliment, which Lemna graciously accepted.

"Thank you, Jackie," she said, smiling. "Who could help feeling gay and joyful on such a day? But, alas!" and her face grew solemn, "the summer goes; then comes the fading autumn, and after that the dead, still winter."

"Whatever is the matter up there?" said Vi, pointing to the surface. "What causes all those curious ripples on the water? They look something like whirligigs, but they are of a different shape. Besides, whirligigs never dive like that."

"Those are the Pond-skaters," replied Lemna.

"How strange it sounds," said Jackie, highly amused, "to talk about skaters in the summer!"

"And yet," returned Lemna, "it is only in summer that pond-skaters take their pleasure."

"Oh, look!" suddenly exclaimed Jackie. "Look! Look at the tiny wigglers! They are coming out of their eggs."

Vi turned her attention to the little egg-raft of the gnat which floated bravely above them.

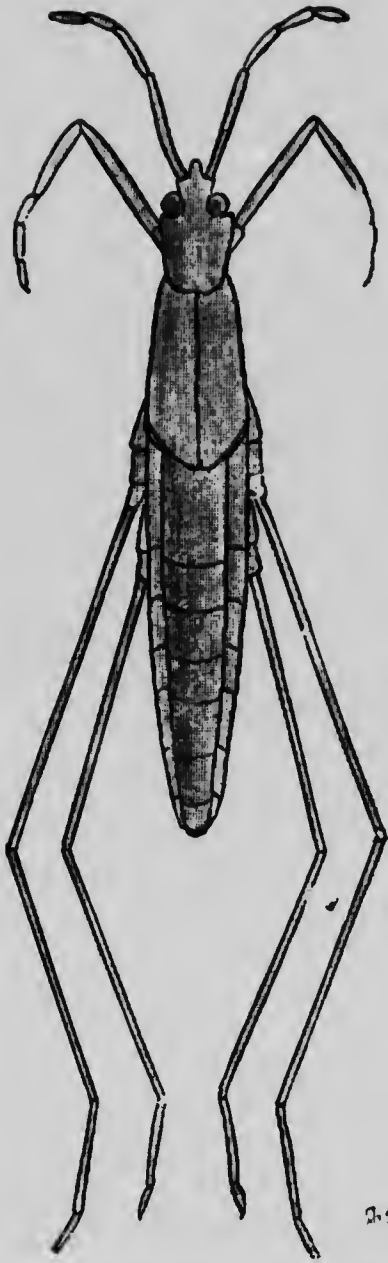
"So they are," she cried; "and I can see the lids opening to let them out."

"The gnats *were* buzzing last night," said Jackie.

"How do they make that noise? I told Miss Forman that their bark was not so bad as their bite, and she laughed. She didn't when they bit her, though, but said they were nasty little things."

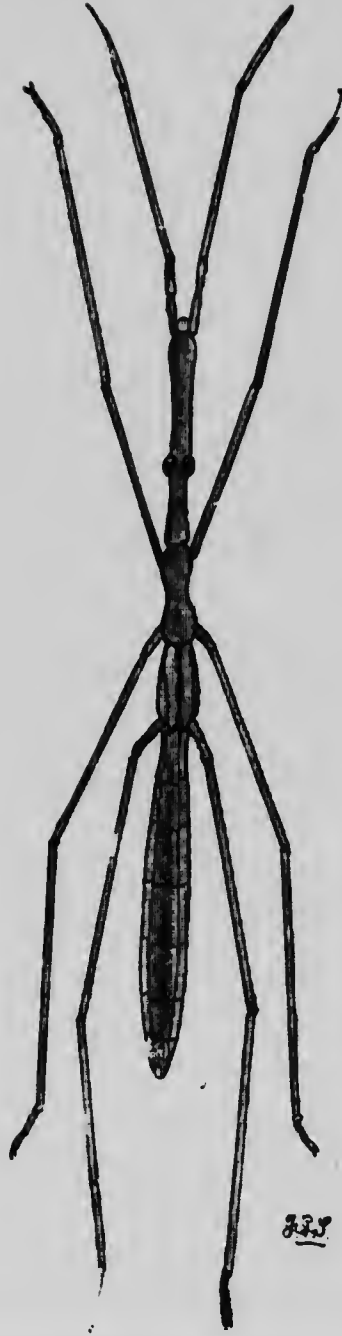
Lemna was amused, and replied:

"The buzz is caused by the movement of the wings as they fly. They move very, very quickly—quicker than you can count."



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THE POND-SKATERS—THEY WERE  
INDEED CURIOUS CREATURES.



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LENGTH WITHOUT BREADTH:  
THE WATER-GNAT.

"But I can count awfully quick," interposed Jackie.

"Not so fast as a gnat can move its wings. Do you know that, in one second, those little wings vibrate fifteen thousand times?"

Vi gave a gasp.

"It's like the cyclops and their eggs!" she said.

"Nearly a million times a minute," continued Lemna.

"No wonder they make a noise," said Jackie, and his eyes sparkled. "But don't they get tired?"

"No," replied Lemna; "because they rest sometimes—when they perch on a little boy's hand, for instance."

She now rose and floated gracefully upwards with the two children.

"Oh, look!" said Vi. "The horrid ogre and the boatman are eating all those poor little wigglers!"

"Never mind," responded Lemna; "there will be plenty left to hatch out;" and they arrived at the surface, where they took up a position on a cool, shady leaf, the better to observe the skaters—the curious insects which made the ripples. They were, indeed, peculiar creatures; the pond seemed to be alive with them—long-legged, thin-bodied people, some walking quiet'y on the water, others skating about quite cheerfully.

"They are very like Daddy Longlegs," Vi remarked.

"Yes," replied Jackie; "but they are rum! However do they manage? Why don't they sink? Why can't we run about and slide——?"

Lemna stopped her ears.

"Jackie, Jackie!" she said. "You have asked three questions in succession, and not given me time to answer one of them. To begin: as all these people are not the same kind of insect, we will examine one at a time, commencing with that fellow over there;"

and she pointed to a long-bodied creature who was calmly walking on the water as if it were solid ground.

Vi laughed at him.

"What a long head and body he has!" she remarked.

"And long legs," Jackie added.

"And long feelers," continued his sister.

"He's long altogether!" concluded Jackie, triumphantly. "I know! He's like that thing in Euclid: 'A straight line is length without breadth.'"

Vi and Lemna were amused at Jackie's description, which was very apt, for the insect's body was no thicker than an ordinary pin, and about as long; his legs were very thin, and widely spread out.

"This curious person is the Water-gnat" (*Hydrometra*), said Lemna.

"But he's got no wings," said Jackie.

"So he cannot buzz," added Vi.

"Still, he is like a wingless gnat," said Lemna.

"You notice that he doesn't go far from the shelter of the plants, but always chooses a quiet corner for his promenade."

"But he doesn't use his front legs at all!" said Vi.

"No," replied Lemna, "he keeps them ready to seize anything in the way of food that may come along; those in the middle are for walking, and the hindlegs are the rudder which steers him."

"I can't see, yet, how it is that he doesn't sink," persisted Jackie.

"That is because of the film, or what we called 'thin ice,' on the surface," explained Lemna. "He is exactly like the dry needle that Uncle Jack floated on the water for you. The water-gnat is dry-footed; he has a velvet foot, and is able to walk about happily, and need never be afraid of sinking!"

"And the others," inquired Jackie; "what are they?"

"Those are the real Pond-skaters (*Gerridæ*). They do not walk, but slide on the surface, and are more active, venturing far out into the middle of the pond."

Just then one of the skaters dived into the water, and returned to the surface, gripping a water-mite in its claws.

"Hullo!" cried Jackie. "He went right in that time!"

"The skaters can do that," said Lemna. "They sometimes go below to catch their food."

"Don't they get wet?" inquired Vi.

"No," replied Lemna.

"But they must if they go under water," urged Jackie.

"Why should they?" inquired Lemna.

"Because they must," returned Jackie, positively.

"Of course," said Vi; "it is only natural they should get wet."

"Doesn't a duck dive under water?" asked Lemna.

"Yes," replied Vi.

"Does it get wet, Jackie?" continued the fairy.

"N-o-o," said Jackie, beginning to feel a little uncertain about pond-skaters. "But, then, it's a bird; and this is an insect."

"That's quite true," rejoined Lemna; "but the pond-skater has a velvet coat very like a duck's back, and you know the old proverb about water running off that, don't you?"

"Of course," replied Vi. "I see now: the skater is covered with hair, and water can't touch it."

"Correct," said Lemna, smiling. "So, after all, Vi, it is only natural they should *not* get wet."

They watched the skaters for some time, enjoying the easy grace with which they slid about the pond.

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Suddenly a ripple close by distracted their attention, and a very well-known face emerged from the water.

"Good gracious!" exclaimed Vi, in astonishment.  
"Here is Master Dragon-fly, climbing up the rushes.



THE DRAGON-FLY WRIGGLING OUT OF HIS SKIN.

Whatever has happened to him, that he should want to leave his beloved mud and weeds?"

The masked face was quite out of water, and the spiny legs now firmly clutched the rushes, and pulled the ugly, ungainly body after them.

"This is just the day he would choose to take a little air," said Lemna; "and I think we could not do better than watch him for awhile. Perhaps you will be amused."

Master Dragon-fly—the water on his dirty-grey body glistening in the sunshine—was working very hard, pulling himself upward with great difficulty. At length he fixed his claws into the soft stem of the rush and hung lazily, apparently enjoying the warmth of the sun.

"What a whopper!" remarked Jackie. "He looks ever so much bigger than some of those I have seen below."

"Yes," replied Lemna; "and the time has come for me to explain more about him."

"But I thought a dragon-fly was just a dragon-fly, and nothing more!" said Jackie, in wonder.

"So he is," replied Lemna; "but he may be one of the big Dragon-flies (*Eschnidæ*), a tiny Dragon-fly (*Agrionidæ*), or a fat Dragon-fly" (*Libellulidæ*).

"Well; which is this one?" asked Vi, pointing to the creature clinging to the rushes.

"That is a big dragon-fly," replied Lemna; "and perhaps you will guess what he is going to do?"

"I know!" said Jackie, with a flash of remembrance; "he's like the May-flies and the gnats: he's come up to hatch out of his nasty, ugly skin."

"Quite right," said Lemna. "I see you are beginning to know the ways of Pondland. The time has arrived for the final change, for you know that Master Dragon-fly changes his clothes regularly, even when he is under water."

"Like our silkworms," said Vi.

The sun had thoroughly dried the moist skin of the coming dragon-fly, which was now hard and horny, and evidently causing its inmate some inconvenience, for he was wriggling about as if he felt uncomfortable.

"He's going to split his skin," said Jackie, perceiving this, "and will come out a beautiful dragon-fly;" and the children waited with breathless interest for this to happen.

First of all a large head appeared.

"Oh!" ejaculated Vi; "what beautiful big eyes!"

"Yes," replied Lemna, "and they are very keensighted, too; but notice his vicious-looking jaws."

Jackie grinned.

"I know they are sharp, for one tried to bite me last year, when I caught him in my net, and Uncle Jack poked him with a straw, and he gnawed it to pieces."

Little by little the dragon-fly now drew his legs out of the old skin, to Vi's delight.

"Why, Lemna," she said; "he's taking off his skin as we remove our gloves!"

"He always does that," replied Lemna.

Jackie was a little puzzled.

"What's the matter with his wings?" he inquired; "they don't seem quite right."

"They soon will be," explained Lemna, "when the sun has dried them; they are cramped just now."

The dragon-fly was now hanging helplessly from his case, his head thrown backwards, drinking in the fresh air and slowly drying his tender wings and body. Little by little the long, jointed form was drawn from its case, and the fly was free, but as yet very soft and helpless as he clung to the rush. Below him was his empty skin, complete in every particular; the mask was in its place, and the former covering of the legs still gripped the rush. Very gradually the filmy wings expanded in the sunlight, like a beautiful flower.

Vi was charmed.

"What a gorgeous insect to come from such an ugly grub!" she remarked, pointing to the skin from which the dragon-fly had emerged.



"I told you he was an ugly duckling, didn't I?" said Lemna.

"You did," replied Jackie.

The dragon-fly was now feeling less helpless; his wings were assuming their proper proportions, and his long, jointed body was hardening as it dried. He curved it as a bee does, exercising the muscles, and then straightened it again.

"He wants to sting already!" said Jackie.

"But he doesn't sting at all," replied Lemna.

"Then why does old Charles call them Horse-stingers?" asked Vi.

"Oh, dear!" responded Lemna, with a laugh; "it is funny to think how a simple insect like a dragon-fly can make fools of grown men. That is one of his little jokes, Vi," she continued. "He pretends that he can sting, to frighten people who may want to interfere with him; and they all believe him in consequence, and leave him alone. How the dragon-fly must laugh at old Charles!"

"What fun!" said Jackie. "Fancy an old man like that being so easily taken in! Will this one pretend that he can sting?"

"Why, he's just deceived you, Jackie!" replied Lemna. "Before he was an hour old he was able to fool you, who have seen hundreds of them."

Vi was delighted.

"So he has, Jackie. Fancy, you being had like that, and by a dragon-fly, too!"

Jackie said no more. It is most irritating to be the victim of a practical joke, and, when the joker is only an insect, it is doubly so. The dragon-fly, thanks to the heat of the sun, had by this time assumed his perfect form.

"What a fat 'head-part' he has, compared with his body, which is long and thin," remarked Vi.

"What you call his head-part," said Lemna, "is his head and shoulders. His head is entirely covered by those two huge eyes."

"They look so beautiful!" said Vi; "and so clear and polished—just like glass beads."

"But they are not," replied Lemna. "Those eyes, formed like a honey-comb, are made up of thousands of tiny eyes, which look out in all directions; for the



THE "HORSE-STINGER" DRAGON-FLY.

big dragon-fly is the hawk of the insect world. He soars about, looking for other insects to prey upon, and those fierce, angry jaws are always ready to tear and rend any victim that may come within his grip."

"I see," said Jackie, suddenly. "It's because he has such sharp eyes that I had such a bother to catch him last year. It took me days before I could get one."

"And you wouldn't have caught him then, if it hadn't been a dull day," answered Lemna.

"I can't remember," replied Jackie. "How do you know, Lemna?"

"I will explain that later," said Lemna. "I was telling you about his body. Well, after his head come his shoulders, where the wings join on. Notice how thick and strong they are."

"Why is that?" asked Vi.

"Because of his muscles," she replied. "He is very strong, and needs all his energy to work his wings. You know, when you have lots of muscle, it swells out, doesn't it, Jackie?"

Jackie usually devoted some part of the day to developing his thews and sinews, and was continually feeling his "biceps" to see if they were increasing in size and firmness.

"I see," said Vi. "Then, his body—why is that so long and slender?"

"For the reason that he has little use for it," she answered, "except to balance himself in flying and to digest his food."

By this time Mr. Dragon-fly was strong enough to trust his newly-expanded wings. For a moment he poised himself; then, with a rustle of their delicate membranes, soared away, to begin his life of destruction.

"I am so sorry he's gone," said Vi.

"Never mind," replied Lemna; "you will see plenty more of him before summer is over. And now run away to Mr. Froggie, for it is tea-time."

## CHAPTER XVIII

### THE DRAGON-FLY AT HOME

THE following day was quite as scorching as the one which had seen the hatching of the dragon-fly. Jackie and Vi had—by special favour of Miss Forman—been permitted to do their lessons beneath the great cedar-tree which spread its flat, blue-green branches over the lawn. This was a spot greatly appreciated by both, and they used to sit upon the thick carpet of needles which it shed on the grass and look from the shade upon the sunlit garden beyond. The day was almost too hot for work, and, as Miss Forman was indulgent, lessons were soon disposed of.

“May we go now?” asked Jackie, who had finished his sums.

“Yes,” replied the governess, “I think you may; but don’t be late for lunch.”

“Rather not!” said Jackie, who was usually fairly punctual at meal-times. “Come on, Vi;” and, together, they hurried towards the pond. “I want to see him fly about,” he continued.

“Who?” asked Vi, at a loss to know to whom her brother referred.

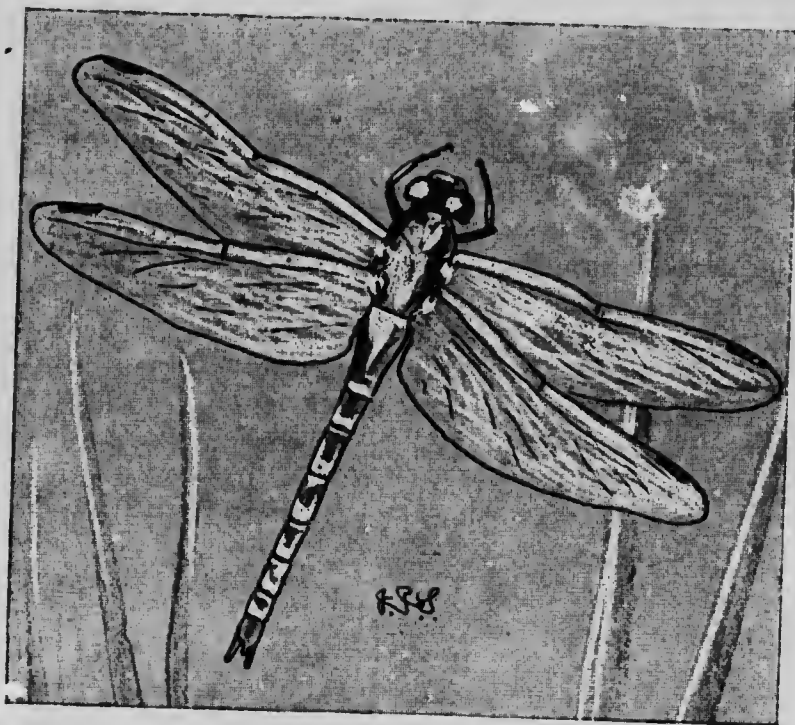
“The big dragon-fly, of course,” replied Jackie. “He’s sure to be out on such a day as this.”

They passed through the trim, well-kept garden, and came to the field and small plantation in which lay the then centre of attraction—the pond.

"Oh!" exclaimed Vi, fanning herself with a rhubarb-leaf she had plucked on the way; "how hot it is!"

"Jolly!" replied Jackie. "Have an acid drop?" and he handed her a clammy packet which had been reposing in his pocket all the morning.

"Thank you," said Vi, taking the proffered refreshment and sucking it diligently. Her mouth and Jackie's



THE BIG DRAGON-FLY.

being thus occupied, they were unable to converse much.

Suddenly, however, Jackie showed signs of great excitement, and, hastily gulping the sweet he had been sucking, ran towards a corner of the plantation.

"Come on!" he cried. "Here he is! Here he is!"

Vi followed her brother, and saw the dragon-fly in all his glory, sailing majestically backwards and forwards at the edge of the glen, darting along straight as an arrow for about twenty yards, then turning in his course and flitting backwards with the regularity of a sentinel. The blazing sun lit his glistening wings as he fearlessly swept past the children with a gentle rustle, the bright light flashing back a hundred reflections from their membranes, while his slender body, glowing in rich metallic colour, seemed but a thread—a long jewel glowing in the air.

“Isn't he grand?” cried Jackie.

“Splendid!” replied Vi, still industriously consuming her acid drop.

“Look!” said Jackie. “He keeps in one place. He doesn't fly about anywhere and everywhere, but has just picked out this one spot.”

“There's another of them,” said Vi, suddenly.

“So there is,” replied Jackie. “They must have been hatching out all yesterday; and to-day, too, I expect.”

The second dragon-fly sailed boldly towards them; then halted, turned, and swept back, as if guarding his own chosen area. Now and again, for an instant, he shot to the right hand or to the left, but always returned to his course, his ceaseless “beat” of the glen. The sun had warmed many creatures into life. Not only had the dragon-flies started upon their fierce existence, but the more dainty and gentle butterflies, leaving the stillness of their chrysalis form, were stretching their downy velvet wings in all the joy of summer freedom.

On a thick bed of nettles the spiny black caterpillars of the peacock butterfly were browsing calmly, knowing themselves to be fairly safe from intrusion on a plant so bravely protected by Nature as the nettle. Some

had finished the period of continual eating, and were slung up on the stalks as chrysalides; others had quitted their shrouds, and were slowly expanding their rich-eyed wings on the plant which had been their home from the egg onwards. Now and again one of these gorgeous, graceful creatures would wing his way into the garden—the outer world of which he knew nothing—leaving the humble home of his early days for the glowing petals of the flowers. Jackie was quite excited, and for the moment forgot the dragon-flies and their ceaseless flight.

“There’s a peacock!” he cried.

“Where?” said Vi. “Oh, I do want to see it spread its tail!”

“Not a bird peacock, you stupid!” returned Jackie. “A peacock butterfly.”

“Oh!” replied Vi, very disappointed. “I thought you meant the bird with the long tail and the little tuft of feathers on its head.”

However, when Vi saw the butterfly she was in some measure comforted, for it was a beautiful creature as it perched on a nettle leaf with its broad wings open, on each a glowing eye, not unlike that on a peacock’s feather. Presently the wings gave a lazy flap and raised the tiny body into the air, where, rejoicing in the brightness of the summer day, it sailed and shone in the sunlight like a tiny bird.

But the big dragon-fly saw it as he patrolled his beat: very little escaped those large bright eyes. As the peacock continued his flight, little knowing his danger, the dragon-fly suddenly paused, reversed his wings and shot backwards, as if to make sure of his aim, and then, true as a shaft from a bow, pounced with a rapid, steady dart upon the beautiful velvet-winged creature.

In an instant the cruel jaws seized it, when he returned

to his appointed course and once more flew backwards and forwards, backwards and forwards, with the regularity of a pendulum, carrying the struggling butterfly in his mouth.

"Beast!" cried Jackie, shaking his fist at the dragon-fly as he swept past them.

"Oh! He's worse when he's grown up than he is when he's a baby!" said Vi. "Just think of his darting at a poor harmless butterfly like that; and such a beauty, too!"

"Hullo!" said Jackie, who could not remove his gaze from the insect hawk; "he's eating it!"

As the dragon-fly passed them once more, a fluttering wing, cruelly bitten off by those vicious jaws, fell from the unhappy butterfly and fluttered gently to the ground. Then another, and another, of the gorgeous painted wings fell, like dead leaves at the end of autumn, until at length the tiny body alone remained of all the glories of the peacock butterfly. The jaws now began to work upon the wingless trunk, feasting in the air, while the ceaseless wings carried the glittering monster ever onward, backward and forward, never stopping at all.

But, though the day was bright and the sun scorching, there were plenty of heavy, mountainous white clouds overhead—clouds that almost suggested huge icebergs floating in a blue sea of air. One of these, a vast mass of white vapour, lazily drifted across the sun, and all the brightness appeared to die out of the day. The strong, hard shadows faded, the whole face of Nature seemed to change, and the butterflies closed their wings as they rested upon the plants. Suddenly Jackie looked up.

"Where has the dragon-fly gone?" he cried. "I can't see him anywhere."

"I don't know," said Vi. "Where's the other?"



They looked everywhere, but could find no trace of the two gay insects who, but a moment before, had been boldly and fearlessly sailing along in their chosen spots.

"Isn't it funny?" remarked Jackie. "I didn't even see them go. Well, let's try the pond. There's no fun in waiting here, if there are no dragon-flies to look at."

They had not far to go. The pond itself seemed to languish in the shadow of the cloud. The skaters were not so active in their sports, and the whirligigs had abated somewhat their mad gambols. Jackie's sharp eyes detected something.

"I say, Vi," he cried; "look! Here are heaps of empty skins, where the dragon-flies have hatched."

Vi bent closely over the rushes. Jackie was right. Here and there, clinging to the rushes by their discarded claws, were the shrouds which once had held the bodies of the glorious insects they had just seen in the full vigour of their present existence, levying toll on every insect which passed within sight of their huge, clear eyes. A sudden rustle attracted Vi's attention, and she seized her brother's arm.

"Look, Jackie!" she exclaimed. "There he is! There he is!"

"There *who* is?" asked Jackie.

"The dragon-fly," replied Vi. "He has crept down into the rushes, and is resting there."

"So he is," said Jackie. "And there's another—and another!"

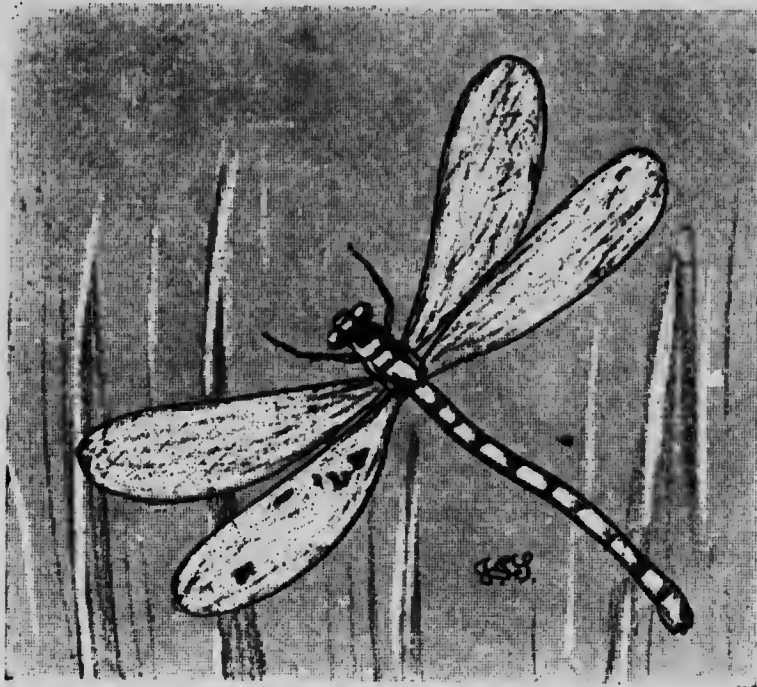
"The rushes are full of them!" exclaimed Vi. "How funny!"

The clouds now drifted away from the sun as suddenly as they had obscured it. In a moment the whole landscape was once more bathed in light, and, with its coming, the air was filled with the rustle of a hundred

wings, as the dragon-flies, in a glittering flock, rose from their hiding-places and circled for awhile over the water, then darted off with fixed purpose to resume their watch upon the borders of Pondland.

The children were gazing in amazement at the throng when Vi suddenly noticed something new.

"Oh, Jackie," she cried; "here is a dear little green



THE LITTLE GREEN DRAGON-FLY.

dragon-fly—not a bit like the big, bold, yellow ones." Indeed, there was not only one of these beautiful little creatures, but a perfect swarm. "There are more, even, than the big ones," she added.

Instead of separating and each going on his lonely flight, these small resplendent insects lingered lovingly near the water which had been their home, dancing up and down and frolicking like gnats, their bright, brassy

green bodies shining with a thousand lights from the sun. They seemed indifferent to the presence of other insects, which flew among them unnoticed and secure. Now they would flit about the surface of the pond, now rise and soar lightly and gracefully above it ; but always in company, as if engaged in dancing a complicated dragon-fly quadrille. Theirs was not the strong, determined flight of their big brothers ; it was the dainty, tripping step of a court beauty treading a measure.

"They are not a bit like the big dragon-flies, except in appearance," said Jackie, thoughtfully.

"Quite right," said Lemna, who floated gracefully towards them on a pair of wings as gauzy and delicate as those of a dragon-fly. "Isn't it glorious!" she added, looking in ecstasy at the sight before her. "This is the most joyous time of all the year. See! All Nature is rejoicing, and putting forth her choicest flowers to the sun!"

"I never thought of the flowers," said Vi. "We've been too busy admiring the dragon-flies."

"Look at the water-crowfoot, with its snowy blossoms," said Lemna, "and the forget-me-nots, with their pale blue and pinkish flowers."

"Oh, yes," said Vi; "and the Frog-bit (*Hydrocharis morsus ranæ*). It's got funny little white flowers, too; and there's a pink blossom over there—what's that?"

"The flowering rush," replied Lemna; "and the one with lilac bloom is the Great Water-plaintain. Yes, indeed, the water-garden is in full flower just now."

"They don't smell very sweet," said Jackie, with a sniff.

"No," said Vi, rather disappointed; "they have a nasty smell."

"You don't get the perfume of the flowers at all," said Lemna, smiling; "it is the Water-mint which is so very strong."

"It wouldn't be very nice as mint sauce, I should think," remarked Jackie.

"Perhaps not," replied Lemna, sorry that they did not share her pleasure in her garden.

"But, please, Lemna," said Vi, "about the dragon-flies. There are heaps and heaps to-day; and those nasty big ones have killed a peacock butterfly, and torn his wings off, and eaten him up. I don't like them at all; but I love the little green ones—they are so beautiful."

"And yet, they all wore a mask once, and gobbled up anything they could find," replied Lemna.

"Well, never mind," said Vi; "that's over, and we will try and forget all about it."

"Very well," agreed Lemna. "The little dragon-flies are the ones I told you about yesterday. I explained that the big ones are the birds of prey of the insect world—the eagles, and the hawks."

"Yes," said Jackie, with a quick nod; "and you were quite right. They may be very pretty to look at, but they are greedy beasts!"

"The little ones," continued Lemna, "are the song-birds of the pond world: the gentle, gloriously-plumaged humming-birds, who flit about in the sun and make everything bright and gay, congregating and flying in flocks, like swallows. In fact, they are so bird-like, that the country-folk call them kingfishers."

"What a splendid name!" said Vi. "It seems to describe them exactly."

"Yes," said Jackie, "'cos they do live near the water, just like kingfishers."

"French people have another name for them," continued Lemna, "which is almost as pretty."

"What's that?" asked Jackie, who had a great and lasting contempt for all Frenchmen.

"They call them Demoiselles—little ladies," replied Lemna.

"That's a good name, too," said Vi; "but I think I like 'kingfishers' best."

"And now," resumed Lemna, "they will sport about here for a month or more, and you will be able to watch them."

"I say, Lemna," exclaimed Jackie, suddenly, "just now, when the sun went behind a cloud——"

"You mean when a cloud went in front of the sun," suggested Lemna.

"Well, yes; I suppose I did," said Jackie. "When a cloud went in front of the sun—why did the dragon-flies all go and hide in the rushes?"

"Because the sun is life itself to them," replied Lemna. "Dragon-flies are very like flowers: they come out when the sun shines, and glory in it; but when the day is dull, they hide away and become quite sluggish. That is how you caught one last year, Jackie. The sun was clouded over, and they were sleepy in consequence."

The dinner-gong suddenly broke off their conversation.

"Good gracious!" said Vi. "I had no idea the time had slipped away so fast. We must go now. Good-bye, Lemna."

"Good-bye," cried Jackie; and the fairy, poising herself on her glistening wings, waved her hand to the two children, and once more joined the dance of the demoiselles.

## CHAPTER XIX

### THE CADDIS AND THE DRONE-FLY

WHEN Jackie and Vi joined Lemna in the afternoon, they found her reclining in her bower. A large silver beetle was beside her, and she toyed with his thick, polished wing-cases as the children approached. She was, indeed, Lemna, Queen of the pond, and all her subjects seemed to pay homage as she lay stroking her gentle pet. Jackie and Vi both stopped short. Never had they seen her as a queen; hitherto she had seemed nothing more than a fairy.

"Come," she said, graciously, and they approached. "Do you know what to-day is?" she asked.

"Midsummer Day," replied Jackie, promptly.

"It is," she replied, with just a touch of sadness in her voice. "After this the days will grow shorter and shorter, until"—she gave a slight shudder—"until winter, cold, dreary, silent winter, when all is wrapped in sleep. Oh, it is hard that it cannot always be summertime! but it must not be."

Vi looked at the fairy in astonishment.

"Why, Lemna," she said; "you are quite sad! Your eyes are wet. Have you been crying?"

Lemna rose, and the silver beetle swam upwards for renewed air.

"No, children; but the hey-day of the year is passing, and soon I shall have to rest, in the cold and amid the

ice, till springtime. But I must not make you sad with my troubles," she continued. "Come, learn, learn, learn of me. Walk about Pondland and mark its wonders while yet there is time ;" she spoke in feverish haste, as if the period were all too short to recount the marvels of her realm.

Hand in hand they wandered through the thick groves of the submerged forest. Here and there glistened the little silken homes of the water-spider, each filled with its silver globe of air.

"Look!" said Vi. "The spider has a family."

They watched the numberless little spiders crawling about in their home, while Mrs. Spider kept guard, and the diligent father brought them dainty flies from the great world above which they had not yet seen. The boatman and *his* wife were busy, too, and Lemna pointed to several little holes in the pondweed.

"The boatman is providing for his family, as well," she remarked ; "and his wife is placing the eggs in little slits of the weed, where they will be safe."

"However can she do it?" asked Jackie, examining the neat little cavities, one for each egg.

"She has an instrument very like the sting of a bee," explained Lemna, "which first bores the hole and then deposits the egg."

Further inside the forest they saw the stealthy water-scorpion.

"They, of course, are far too lazy to think of laying," said Vi.

"Not a bit of it," replied Lemna. "They are busy, too, and their proceedings are very curious ;" and she pointed to a string of oval-looking "eggs."

"What are those hairs for?" asked Jackie. "I never before saw an egg covered with hairs."

"They are remarkable. Each one has seven, like bristles, curled over at the top to form a basket."

"I see them," said Vi; "and one egg rests in the basket of another."

"Not only that," replied Lemna; "but those bristles turn backwards and form little hooks, which take hold of the weed."

"I know!" Jackie exclaimed, enormously pleased. "It's just like the burrs that get on my stockings when I walk in the long grass; or like the teasles—they've got little hooks just like that. Fancy—animals copying plants!"

A brilliant green flash now caused them to look upwards.

"What's that?" said both, in one breath.

"One of your beloved 'kingfisher' dragon-flies," replied Lemna. "She, too, is busy stocking the pond. She uses her long body for that purpose, so that she can lay her eggs under water without damaging her filmy wings."

"To think that such a beautiful creature can be the mother of that horrid beast! It does seem odd," remarked Vi.

They next noticed, on the ground, the tender May-fly grubs—the hatching of that memorable night a month ago—snugly ensconced in their burrows where they awaited the passing of their two years' imprisonment.

"Now," remarked Lemna, "I will show you the cousin of the May-fly. That is the Caddis-fly. They seldom visit the ponds, as they prefer a running stream. Still, there is one here who will, I think, amuse you;" and she pointed to a cluster of *Planorbis* snails, who seemed very busy.

"That's not a caddis," said Jackie. "It's only a lot of catherine-wheel shells."

"Watch it closely," replied Lemna, with a smile.

One of the snails now pushed his black head out of



his shell, and lazily thrust out his eyes to survey the situation.

"There!" said Vi. "That is only a snail. I believe Jackie is right."

Meanwhile the snail, seeing that it was a fine afternoon, thought this an excellent opportunity for a walk, to see what sort of weeds he could get for tea. He started, therefore, bravely, and began to pull himself along. At first he seemed to move slightly; then, finding some difficulty, he tugged and strained very hard, but without effect. This evidently puzzled him, so he drew in his horns and retired into his shell to think the matter over.

"Why can't he move?" asked Vi.

Lemna laughed heartily.

"Because he has been taken prisoner," she replied. "Come to the other side."

She led them round the clump, and there, in a little grotto of shells, they saw the caddis-worm.

"I can see the caddis," said Jackie; "but I don't understand why the catherine-wheel shell was not able to walk away."

"Then I will tell you," said Lemna. "Mr. Caddis is very like Miss May-fly—a nice, soft, tender, juicy morsel for all the greedy people who live here. He has to hide, somehow, and the way he does it is to build himself a house. He collects all sorts of things, and carefully glues them together. Then he gets inside, where he hooks himself quite tightly, so that he can't be pulled out by any of the other beasts who want to eat him. But he made rather a mistake this time, and built a live snail into his house."

"How very awkward!" said Vi.

"For the snail—yes," replied Lemna. "Now you see what happened. Mr. Snail wanted to walk away while Mr. Caddis was having a nap, and he began to

pull one way. When Mr. Caddis felt the strain, he held on to the weeds with his forelegs."

"And they had a tug-of-war!" exclaimed Jackie.

"Yes; and Mr. Caddis won," said Vi.

"He always does," replied Lemna. "He is very fond of his home, and takes care that nothing robs him of it."

The worm, thus rudely disturbed in his nap, and thoroughly awakened by the activity of his house,



IN A GROTTO OF SHELLS THEY SAW THE CADDIS-WORM.

now began to crawl forward, dragging his grotto behind him.

"Look, Vi!" said Jackie. "He's walking along. Isn't he funny!"

"What a heavy thing to pull all over the place!" said Vi.

"It would be if he were on dry land," said Lemna.

"But it's just as heavy down here, isn't it?" asked Jackie.

"Yes; but not so difficult to move," replied Lemna.

"Things under water appear to lose their weight, and are moved much more easily."

Jackie had the glimmer of an idea, which he wanted to express.

"It's like the diver at the seaside," he said thoughtfully. "Don't you remember, Vi? He had great, heavy leaden soles on his boots, and weights on his chest, and couldn't move about a bit until he got under water, when he walked quite easily."

"That's right, Jackie," said Lemna. "The caddis-worm is the diver, and his shell cottage is the boots and heavy weights."

"But isn't it very rough and nasty inside?" asked Vi. "I should think the snails' shells would hurt him, if he has a soft body."

"So they would," replied Lemna, "but that he is careful to line the whole of his house with soft silk, which is the same sticky stuff that he uses in glueing the shells together."

"How clever of him!" said Vi. "But what if he can't get snails for his house?"

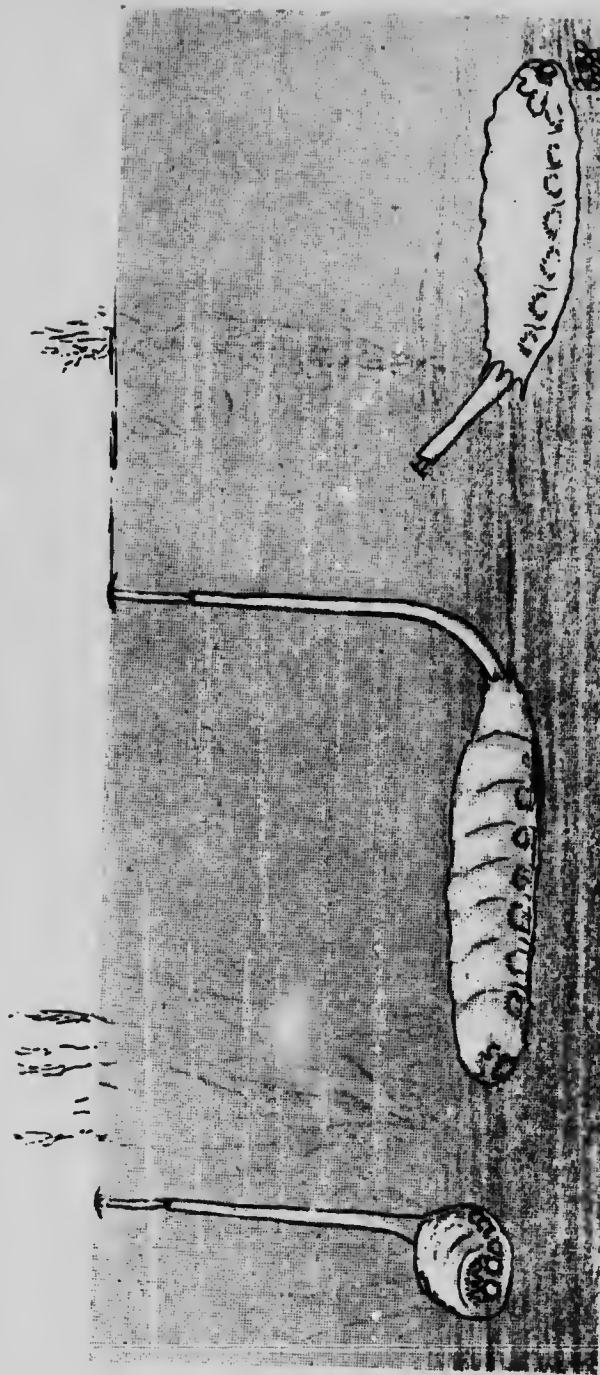
"He doesn't always build with snails," replied Lemna. "Sometimes he uses grains of sand—then he is most particular to secure grains all of one size; sometimes he uses sticks and straws, and I have heard that naturalists often give them glass beads, out of which they build very pretty houses."

"How jolly!" said Jackie. "I suppose he's very proud of a house like that. But what is he doing now? He seems to be spinning, like my silkworms."

The caddis was evidently very busy, covering the door of his house with delicate strands of silken fibre.

"He is going to become a chrysalis," explained Lemna, "and is closing his door with a net, so that he may not be disturbed. Then he will turn into a regular 'mummy' inside, and wait till the time comes for him to hatch out."

"What fun!" exclaimed Vi. "How I should like



"THE RAT-TAILED MAGGOT, WHO ENJOYS HIMSELF IN THE MUD."

to be able to shut myself up quite snug and safe, like that."

"And now," resumed Lemna, "I am going to take you to the foulest part of the pond, where the water is very shallow, very muddy, and not altogether sweet. I don't think you'll want to stay long; but I mean to show you a curious animal that prefers to live there."

They passed along the bottom of the pond until they arrived at a half dry ditch which fed it occasionally. It was the ditch which Miss Forman had once—and rightly, too—pronounced to be poisonous; the smell was certainly most unpleasant. The mud was thick and full of decaying weeds, and the water very shallow and putrid. Big bubbles of gas arose from the bottom and lingered on the surface before they burst. Neither Lemna nor the children were impressed with the spot, nor was it a favourite with any of the pond-dwellers, who avoided its deadly mud.

"I don't like it at all, Lemna," said Vi. "I'm sure no nice animal can live here."

"Perhaps not," she replied; "but there is one, the 'rat-tailed maggot,' who enjoys himself in the mud, and eats it."

"Ugh!" ejaculated Jackie. "Horrid beast!"

"There," continued Lemna, "is his tail, sticking up;" and the children saw a slender tube protruding from the mud and reaching to the surface of the water.

"I know what that is," said Jackie, nodding wisely. "It's not a tail, but a breathing tube."

"Bravo!" cried Lemna. "Jackie, you are learning to recognise things for what they really are. Yes, that is the breathing tube; the maggot himself is buried in the mud."

"He must be fond of it," said Jackie.

"He is," replied Lemna. "The greatest treat he can have is to eat it."

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"I see," said Jackie; "he really eats 'mud-pie.' What fun!

"But how does he manage always to keep his tail just on the surface?" asked Jackie. "Doesn't he sometimes find it too long?"

"No," explained Lemna. "It is made like a telescope. When it is too long, he shuts it up."

Vi was not at all interested.

"What is he like?" she inquired. "He must be horrid to look at."

"He is not a beauty," replied Lemna. "See, there is one just going into the mud, to bury himself."

They looked at the Rat-tailed Maggot (*Eristalis tenax*) as he left his foetid home, and Jackie gave a laugh.

"He's like a tiny sausage!" he said gaily.

"What funny little legs!" said Vi. "I can hardly see them."

"He has no great use for legs in the mud, has he?" replied Lemna.

The maggot laboriously climbed up the bank, and slowly wriggled itself into the soft earth.

"Why is he doing that?" asked Jackie.

"He is going to become a chrysalis," replied Lemna.

"Oh!" said Vi, "and what does he turn into—surely nothing very pretty!"

"Here's a bee! Quick, Vi!" cried Jackie, in great delight, suddenly looking up. "I bet you anything it's a drone."

It certainly seemed very like a drone—it had the colouring of a drone, it flew like a drone, it had the same buzz.

"You are right, Jackie," said Vi, decidedly. "It is a drone—nasty, fat, lazy thing!" Vi had a poor opinion of drones in general, despising them for their lazy habits and greediness.

"Oh, Jackie! Oh, Vi!" said Lemna, laughing.

"Fancy, *you* not being able to detect the difference! That is not a bee at all."

"Anyhow," said Jackie, "it's just like one."

"I believe it is," replied Vi.

"Not at all," replied Lemna. "It *pretends* to be a bee, so that birds and other enemies may be afraid to attack it. It is called the Drone-fly (*Eristalis tenax*), and, once upon a time," she continued, her eyes dancing with mischief, "it used to be a rat-tailed maggot."

"That beautiful creature once a maggot!" cried Vi, in astonishment.

Lemna nodded.

"And, what is more, the one who has just buried itself in the bank will hatch out, in a few days, into just such a fly."

"I can hardly believe it," said Jackie.

"True, nevertheless," replied Lemna. "Think of it! For weeks and weeks it has been a horrible devourer of foulsome mire; to-day it is a joyous, beautiful honey-feeder."

"Isn't it clever, though," said Jackie, "to pretend to be a bee."

"Could it get into a hive?" asked Vi.

"No," replied Lemna, "it could not. But there are hundreds of insects who live upon false pretences, like this one, in order to escape their enemies."

"Is that very honest of them?" asked Vi, a little shocked.

"I don't know," she replied; "but hundreds of living people are just as dishonest, and more so; for the drone-fly has been furnished by Nature with its hairy body and transparent wings."

"Let's get away," said Vi, "this place smells. I'm sure there's no need to stop here any longer."

"Quite right," said Lemna. "The rat-tailed maggot is the only person of any importance who lives here;

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and, as we have seen him, let us get back to the pond, where everything is sweet and clear. Come and see Mr. and Mrs. Silver Beetle at home."

They passed through the thickness of the forest to a quiet glade, where they found Mr. and Mrs. Silver Beetle very busy. Their large bodies showed up well against the foliage, and Mrs. Silver Beetle was evidently very much occupied. Now, when a beetle is busy, there is no mistake. It devotes not only its whole attention, but also all its strength to the matter



THE NEST OF THE SILVER BEETLE.

in hand, for the beetle in general takes life and its responsibilities very seriously. They toil year by year at exactly the same tasks, but still the mental effort seems to be always overwhelming. Had Mrs. Silver Beetle been a human being she would certainly have looked very worried.

"Whatever is the matter with her?" asked Jackie. "What is she doing with that sort of football she is floating so carefully on the water?"

Mrs. Silver Beetle did not heed her visitors; she had no time to waste in curiosity.



"The football, Jackie," explained Lemna, "is a nest for her eggs. She is mooring it to the rushes, and soon the silver beetle grubs will make their appearance."

"How jolly!" cried Jackie. "Just like Moses in the bulrushes, isn't it, Vi?"

"What a splendid idea!" rejoined Vi, laughing. "But how many little Moseses will there be, Lemna?"

"That depends," answered the fairy. "From fifty to a hundred, I daresay."

"What a lot to go into such a small place!" commented Jackie.

"You must remember that the eggs are very small," said Lemna, "so there is plenty of room for them."

"What is it made of—the football, I mean?" asked Vi.

"Silk," said Lemna. "Mrs. Silver Beetle spins very like a spider; and, having made her nest, she ties it up to the rushes. When the larvæ, or grubs, are hatched, they find their way out and swim about down below. But I regret to tell you that they are not so gentle as their parents, for they are almost as destructive as the water-devil himself, and will even find a way to eat a mussel."

"That spoils it all!" said Vi. "No matter how nice a beetle may be when he's grown up, he always seems to be horrid when he's a baby."

"All very well, Vi," remarked Jackie; "but don't you remember the 'balance of life' that Lemna has told us so often about?"

"I suppose these things must be," said Vi; "but I can't bring myself to like them, for all that."

They stood for some time watching Mrs. Silver Beetle completing her family arrangements. In fact, the whole pond seemed engaged in egg-laying. The dragon-flies, the gnats with their tiny raft, the silver beetle, the scorpion, all were industriously occupied

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in the same process, each adopting its own method, which was peculiarly suited to the wants of the new race to be born.

As they looked up at the long bodies of the dragon-flies piercing the stalks of the weeds to deposit the egg which contained their uncouth children, a very tiny, bee-like



THE ICHNEUMON-FLY OF THE POND.

insect, swimming bravely in the water and using its gossamer wings as oars, flashed by them.

"That's funny!" remarked Jackie. "I thought insects didn't like getting their wings wet."

"They don't, as a rule," replied Lemna; "but this one doesn't mind. It is a very curious insect, too; one of the dreaded Ichneumon-flies."

"What are they?" asked Jackie. "I thought

ichneumons were animals, like stoats ; at least, so my natural history book says."

"So they are," replied Lemna. "These flies are called ichneumons because of their destructiveness. The tiny creature now on the stalk of that weed is a great curiosity, and for hundreds of years people knew nothing at all about it, until a very clever man named Sir John Lubbock once saw it and studied its ways."

"But it's so small!" said Jackie; "it surely can't do any harm."

Lemna shook her head.

"On the contrary, it can do a lot; and the dragon-flies have every reason to fear it."

"Dragon-flies!" cried Jackie, in astonishment. "Why, a dragon-fly would gobble up a little thing like that in a moment!"

"Of course he would," echoed Vi. "That big one ate up a butterfly quite easily."

"Yes," replied Lemna; "but this little Ichneumon (*Polynema natans*) doesn't attack the grown-up dragon-flies. It confines itself to their eggs."

"Oh!" said Jackie. "Does it suck them, as a weasel does?"

"No," she answered. "Watch it closely, and you will see what it does."

The children bent over the stem where the little swimming, bee-like ichneumon was hanging over the eggs the dragon-fly had just laid.

"It's going to pierce them with its sting," cried Jackie, "just as the queen bee stabs the eggs in the queen cells."

"Not quite right," replied Lemna. "That little ichneumon is laying its eggs inside the eggs of the dragon-fly."

"What a funny thing to do," said Vi. "I don't see the good of that."

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"I must tell you," said Lemna. "All the ichneumon-flies—and there are many kinds—lay their eggs inside some other insect, generally caterpillars. When they hatch, the greedy little grubs eat up all the inside of their unwilling host, who dies; then they turn into their chrysalis form, and finally hatch out."

"Like the mite on the ogre beetle?" suggested Jackie.

"Yes," she replied. "This little ichneumon lays her eggs inside those of the dragon-fly, and, when her children hatch out, they eat up the tiny creature inside; and so, for each ichneumon-fly, there is one dragon-fly less in the world."

"That's very strange," said Vi. "How angry the mother dragon-fly would be, if she knew! Still, I'm rather glad, for I don't like the nasty, crawling, spiteful things. What a pity they don't hatch out into dragon-flies at first, instead of roaming about at the bottom of the pond and eating everything!"

Once more they passed Mr. Caddis in his snug home. By this time the net over his door was complete, and they could see him inside, a round mummy, waiting until the time for hatching should arrive.

"He's gone to sleep," said Vi.

Again the poor hungry *Planorbis* ventured out of his shell and attempted to walk. To his surprise, he found himself able to do so, though not very fast, as the house was a heavy one. However, he struggled bravely on till he reached the weed, and then fell to upon his long-deferred meal.

Jackie gave a big sigh.

"I'm awfully glad," he said. "I hate being kept waiting for dinner, especially when I'm hungry."

## CHAPTER XX

### THE NEWT'S MISFORTUNE

**J**ACKIE and Vi were in bed, and it was a summer evening. Daylight yet came through the windows, and Jackie, very naturally, resented his position.

"Did you ever hear of such nonsense!" he said, in tones of aggrieved complaint. "Sending us to bed before it gets dark! It's not natural."

Vi, sitting up, with her arms clasping her knees, added:

"It's just as if we had been sent to bed for being naughty."

"Almost," said Jackie. "Not quite, though, 'cos then you get smacks as well."

"I'd forgotten that," said Vi. "But animals are still up, aren't they? The birds haven't gone to bed yet, and the chafers are singing just beautifully!"—the children adored cockchafers.

"One would think we are worse than the animals," grumbled Jackie; "but I'm sure we are a lot better."

"Of course," replied Vi; "but they have to go to bed very early in the winter, haven't they?"

"Yes," assented Jackie, slowly. "I suppose they have; but they make up for it now. Besides, those birds that go across the sea don't go to bed a bit earlier. Got any chocolate?"

Vi nodded, and, slipping out of bed, cautiously stole to a fancy shell box purchased by her at the seaside,

one of her most cherished possessions. She drew therefrom a long, silver-papered stick of chocolate, and broke it in half, handing one piece to her brother.

"Now, remember, it's your turn next time," she said.

"All right," assented Jackie, calmly munching at his share, and for a moment their sorrows were forgotten in the feast, doubly sweet to them because its indulgence was strictly against the laws of Nurseryland.

"Wouldn't she be cross if she knew!" said Vi, vaguely nodding in the direction where she supposed Miss Forman to be.

"Um!" replied Jackie; he was too busy for more.

"I say," remarked Vi; "we've quite forgotten about the newts."

Jackie was wiping his fingers and mouth, both plentifully besmeared with soft, brown chocolate.

"So we have!" he cried. "There's such an awful lot to see. It's like going to a party; there's so much to eat that you haven't time to do it."

Vi readily agreed; she knew full well the pangs of refusing soft, brown *éclairs*, which with her were a special delicacy.

"But we mustn't forget the newts," she said.

"No," replied Jackie. "I'll tie a knot in my pocket-handkerchief;" and he reached out and secured the article in question. It was not spotless, and had acquired a decidedly greyish tint; but it was a thorough boy's handkerchief, spotted with fruit stains and other evidences of much use. "There," said he, making a tight knot in one corner, "I'll be sure to remember."

The shades of night were falling at last, and the plaintive cry of the owl was heard from the farm across the road.

"Do you hear the owls, Vi?" he asked.

"Yes; they're catching mice," replied his sister.

"There's heaps in the barn, and Emma the housemaid is afraid to go there."

"Silly thing," said Jackie. "She's afraid of everything—toads, even."

Vi gave a little sigh; her eyelids would not keep open.

"There—are—no—toads—in the barn," she murmured.

"I didn't say there were," said Jackie.

But Vi had dropped off to sleep, and he very soon followed her example, for both were thoroughly tired out.

\* \* \* \* \*

The next day, as they hurried off after lessons, Jackie waved his pocket-handkerchief in front of Vi.

"I've not forgotten," he cried.

"Forgotten what?" she asked.

"What we are going to do," he replied.

"What's that?" she inquired. "I don't remember."

"Newts!" said Jackie, with great pride. "Girls always forget."

"Of course," said Vi. "How silly of me!"

"Yes," replied Jackie, "and you've got to thank me for reminding you. You ought to get some chocolate as a reward."

Vi was rather doubtful; Jackie found so many reasons why she should provide the extra delicacies in the nursery.

They were soon floating through the cool water to the bottom of the pond, where Lemna was waiting to receive them. She seemed a little less beautiful than usual; her face had a worn and tired appearance, but still her smile was sweet as ever, and her welcome even warmer.

Jackie and Vi ran up to her.

"Newts!" they cried, in one voice.

Lemna was surprised.

"What do you mean?" said she. "What is the matter with them?"

"Nothing," answered Jackie. "We only want to see them, that's all."

"Very well," replied Lemna; "so you shall."

"And the newt tadpoles," said Vi. "We haven't seen them for a month or more."

"There has been so much to do," replied Lemna. "While we have been looking at all our other friends, they have gone on growing and growing: you will hardly recognise them. There's one," she continued, pointing to a smooth, wriggling tadpole who sported above them, his brilliant golden eyes full of fun, yet keeping a wary look-out for things to eat.

Jackie appeared puzzled.

"That's very strange!" he remarked, thoughtfully.

"What's strange?" asked Vi. "It's just an ordinary tadpole."

"It's not," said Jackie. "It's quite different."

"How?" asked his sister.

"Because," said Jackie, solemnly, and with a certain amount of pride, as one who makes a discovery—"because its front legs have grown first. Now a frog grows its hindlegs first. So, you see, it *is* different!" he added, in great triumph.

Lemna was much amused, her face lighting up with laughing dimples.

"Jackie is quite right," she said. "He has found out that fact for himself, which shows he has learned to notice things. Newt tadpoles always put out their front legs first, just as froggies begin with their hindlegs. The newt will soon have all his limbs, and in another week or so he will begin to walk; and then he will walk right away, and we shan't see him any more for three years, when he will come back with his wife,



Now, children," she continued, "how would you like to see Mr. Newt change his clothes? He is doing it at this moment."

"Like Mr. Natterjack?" asked Vi.

"Yes," replied Lemna; "only, perhaps, you will enjoy watching it more than you did when you saw him change his coat."

They passed into the tangled growth of the forest, and there saw Mr. Newt engaged in peeling off his delicate, filmy skin, which floated in the water as he wriggled out of it. He had freed his body, and was now occupied with his paws, slowly drawing off the skin which yet clung to them. Presently a tiny, lace-like glove floated downwards.

"Oh!" said Jackie. "He has taken off his gloves."

"How beautiful it is—so delicate!" said Vi.

"Yes," replied Lemna; "the gloves provided by Nature for newts are finer than any the most skilful glover can make. If you look at the pond closely, you will often see them floating in the water; and, if you slip a piece of card underneath them, you can keep them as you do seaweed when you go for your holidays."

Mr. Newt was so busy with his toilette that he did not notice a very greedy person indeed, who was watching him. This was the ogre, who was very fond of the newts—to eat; and, as they were rather slow in their movements, he often succeeded in getting one for his supper—it was always supper-time with the ogre.

Jackie and Vi were also far too busy to detect the stealthy foe, who, with a dart, pounced upon Mr. Newt and attached himself to his leg, holding on firmly, while the poor animal writhed in his grip.

"Oh!" said Jackie; "look at that horrid ogre—he's trying to eat Mr. Newt. Greedy brute! As if he could—"

Vi was very wroth.

"It's a beastly shame he won't let the others alone!" she exclaimed. "He's always creeping up and biting them, or eating them, and Mr. Newt hasn't hurt him. He leaves him alone; why can't the ogre do the same!"

Lemna smiled.

"Even ogres must live," she said.

The struggle was a fierce one, and the ogre had the advantage, as the newt's jaws were quite unable to make any impression upon his horny covering. Finally, after a great struggle, during which the poor newt churned the water with his flat, oar-like tail, the ogre calmly bit off his leg, and retired to a corner where he could devour it at leisure, while the poor newt, with only three remaining, retreated to the shelter of the weed.

"Oh!" said Vi, as the tears sprang to her eyes, "Pondland is not at all a nice place; and I wonder you can live in it, Lemna! Poor Mr. Newt! He'll die, of course?"

"I don't think so," replied Lemna. "He will just rest for awhile, and I fancy you will see him recover, and do very well indeed."

The newt looked certainly very uncomfortable as he hid in the weeds with only three legs. About him sported members of his own family—gay and festive little newt tadpoles, rejoicing in the rich feast of vegetables before them. Vi was scornful.

"Look at them!" she said. "They don't seem a bit sorry for him. I know if father had his leg bitten off, I'd be awfully grieved, and would want to nurse him."

"Rather!" said Jackie; "and," with all the spirit of a Corsican who has a fine crop of vendettas to adjust—"and I'd go and see if I couldn't find the man that did it!"

Suddenly Mr. Newt thought that perhaps a little food might comfort him for the loss of a limb; so, with a quick, short gulp, he seized one of his own children, and calmly began to devour him.

Vi's sympathy melted as the winter snow at the first approach of spring.

"Lemna! Lemna!" she cried. "He's worse than the ogre! He's eating his own children!"

Jackie grinned.

"Like the old lop-eared rabbit at the farm," he said.

"After all, they are his own—aren't they, Lemna?"

"You're a nasty, horrid boy, to talk of such things!" said Vi. "How would you like father and mother to eat you?"

Meanwhile, Mr. Newt, having disposed of his supper, yawned desperately; he had been doing too much, and was very tired. He rose to the surface to take a breath of air after his exertion, and then quietly settled down to sleep.

"Children, children," said Lemna; "how little you realise newt life! They are all cannibals."

"Caramels?" said Jackie; "those are sweets, aren't they?"

"Cannibals, Jackie; not caramels," corrected Lemna.

"You mean like the people who ate Captain Cook," said Jackie, once again.

"Well," said Vi; "I really don't know what to think, or which is worst—the ogre or the newt. One is as bad as the other."

"Never mind, Vi," said Lemna; "Mr. Newt will soon be going away for the winter, and then he won't be able to eat his children, will he?"

"That's one comfort," said Vi.

"And now," resumed Lemna, "I am going to show you a little creature who will be hatching out soon; a moth—a real moth, that lives in Pondland."

"Not a clothes-moth?" asked Vi.

"No; just an ordinary little moth, and one that lives upon my namesake, the duckweed. They are very rare, as there are only five kinds in all England that live in the pond. I will show you one, and that is the China Mark Moth" (*Cataclysta lemnata*).

Lemna and her companions climbed on to the duckweed, which was in its full glory, pushing out its white flowers bravely in the afternoon sun. Vi gave a little start.

"Ugh!" she exclaimed. "There's a nasty, brown caterpillar. It gave me such a fright!"

Jackie laughed.

"Don't be silly!" he said. "Fancy being afraid of a caterpillar!"

"That will one day be a China mark moth," added Lemna. "If you look at the fronds of the duckweed, you will see some who have turned into their chrysalis state."

Vi peeped cautiously.

"I see one!" she cried. "He's been spinning, too, like the silver beetle. Look, Jackie; he has fastened the fronds of the duckweed together, and made himself a little nest."

"Awfully snug, isn't he?" said Jackie, as he peeped at the silent chrysalis in its little retreat. The chrysalis seemed to be conscious that it was under examination, for it wriggled its tail as if indignant at the intrusion.

"You disturbed it," said Lemna; "but I think it would have awaked, even if you had not come to see it. Let us wait, and see if anything happens."

Jackie, growing accustomed to the ways of Pondland, was unusually sharp.

"Do you think it's going to hatch out?" he asked.

"I shouldn't be surprised," replied Lemna.

"Do let us stay and see it!" said Vi.

The chrysalis was evidently very uncomfortable indeed; it seemed to be oppressed by its shroud, and struggled to be free. The children waited anxiously, and presently the skin burst, and two black eyes appeared, together with a pair of feelers, or antennæ. The excitement was intense as, bit by bit, the tiny insect freed itself from its case, and finally crawled out on to the duckweed, to dry its wings and stretch them before it took its flight in the evening.

"It hasn't got any wings to speak of," said Jackie. "Can it fly with those?"

"No," replied Lemna; "but they will expand and grow, now that it has left its case. The wings of butterflies and moths are very much like the petals of a flower—they expand in the sunlight."

"Yes, Jackie," said Vi. "Don't you remember the poppies in the garden? When we picked a bud, and opened it, the flower was all folded up tight."

Lemna patted Vi's curls.

"Quite right, little girl," she said. "The chrysalis-skin of the moth or butterfly is like the bud of a poppy: when it bursts, the delicate petals expand."

Jackie was learned in his own way on the subject of butterflies. That is to say, he classed all creatures with four coloured wings as such. He had acquired much knowledge of a peculiar sort regarding them, from personal observation of the captives who had fallen to his net.

"I have caught hundreds of butterflies," he remarked; "but why are some called butterflies and others moths?"

"That is a very deep question, Jackie," she replied. "However, I will tell you a little about them. Butterflies, as a rule, are day insects, while moths are generally night-flyers."

Jackie made a mental note of this.

"Then, if I want to catch moths," he said, "I shall have to go out at night?"

"That is the best time," she replied.

"Look here, Vi!" said Jackie, and his eyes sparkled.

"We'll get father to let us collect moths, and then we



"THEIR WINGS ARE COVERED WITH HUNDREDS OF BEAUTIFULLY SHAPED SCALES."

shall *have* to sit up at night, and they can't send us off to bed early."

"Splendid!" cried Vi, in deep astonishment at the depth of Jackie's scheme. "Why ever didn't we think of that before? Father's sure to say yes."

"Then," continued Lemna, "moths have larger

and fatter bodies than butterflies, and their antennæ—'feelers,' as you call them—are different in shape. A butterfly has long, club-shaped antennæ, while a moth has them of all shapes and sizes; very often they are like plumes, or like a fern. And moths are always darker and more sombre in their colours than butterflies."

"Yes," said Jackie; "but if I catch them, to look at their feelers, all that dusty stuff comes off their wings on to my fingers, and then they aren't a bit nice."

"Oh, yes," said Vi; "all their wings are covered with a sort of powder, and when that comes off they are just like ordinary flies' wings."

"I will tell you what 'that dusty stuff' is," said Lemna. "Their wings are covered with hundreds of beautifully shaped little scales of all colours, overlapping each other like the scales of a fish. They are very delicate, and the least touch will remove them; so, when you catch a butterfly or moth, you must be very careful not to rub his wings, or he will be worthless."

While they talked, the China mark moth had been stretching out his wings, which had been cramped in the narrow confinement of his chrysalis. They were of a delicate white, with a small, central, black dot. The hind-margin of his under-wings was dark, and on this were five silvery dots. Jackie was rather disappointed: he preferred the brilliant day-flyers—the tortoise-shell and red admiral.

"He's not half as jolly as the butterflies," he said with some scorn.

"Perhaps not," replied Lemna; "but the tortoise-shell and red admiral would be lost in the dark, and you couldn't see them, could you?"

It was now getting late, for their excursion had been a long one, and the time had slipped away very quickly.

The tea-gong recalled them to the outer world and its responsibilities.

"Hullo!" said Jackie; "there goes the gong. We mustn't be late, 'cos there's a junket for tea, and real Devonshire cream—cook told me so." Jackie was very fond of junket, and feared he might forfeit his share if he were late. "Come, Vi," he continued; "we must be going. Good-bye, Lemna."

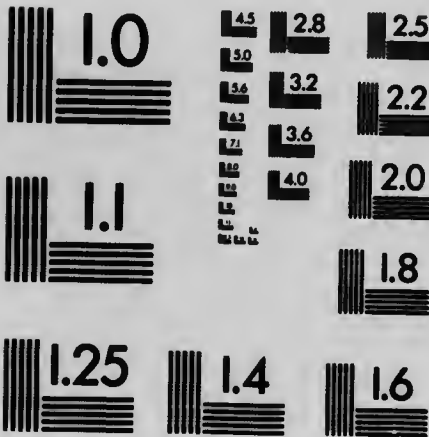
"Good-bye," cried Vi; and, springing from their island of duckweed, they reached the bank, and left for awhile the fairyland of the pond.





# MICROCOPY RESOLUTION TEST CHART

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## CHAPTER XXI

GOOD-NIGHT ! GOOD-NIGHT !

THEIR visits to Pondland had so filled the children's time that they had lost sight of what was to them their great annual excitement—the summer holidays. They were, therefore, surprised when Miss Forman announced that in no less than a few days they would be off to the sea.

The news was received with great joy, and they instantly began what they called their packing, which was a solemn matter, not to be entered upon lightly. The big toy cupboard was opened, and first of all came the selection of those particular and valued articles without which the children declared their life at the seaside would be a dreary blank. Spades and buckets must be taken, of course, and were at once brought up from the tool-house. Then there was Jackie's boat—a weather-beaten craft whose rigging left much to be desired. However, no child of any consequence *could* be happy at the seaside without a boat. Vi's shell box *had* to go ; it contained a great many highly-important and useful things which she was sure to want. To wit—a piece of sealing-wax, a stump of red pencil, a string of pearl beads, several buttons of assorted designs, some highly-coloured advertisements of cocoa and other delicacies, and a buttonhook.

Miss Forman protested.

"I don't think I would take that, Vi," she said coaxingly. "The shells might get knocked off on the journey; and you can always use *my* button-hook."

Vi was not convinced.

"If you lose yours, Miss Forman, what shall I do? I must have a buttonhook, you know; besides, it won't take up much room."

Jackie now appeared with a butterfly-net.

"I'll have to take this," he remarked.

Miss Forman assented.



"BLACK-BEETLES!" SAID HER BROTHER.

"Then there's my writing-desk," said Vi, "in case I want to write letters on a wet day."

"And my paint-box," said Jackie. "I shall want to draw pictures."

The allusion to a wet day set Vi a-thinking.

"Then there's the doll's house—I don't think we could leave that behind."

"And my bicycle horse," added Jackie.

Miss Forman saw that it was high time to be firm; but, even with the utmost firmness, the pile of small

articles, all indispensable to the children's happiness, grew to a very alarming extent. But this was not all. Visits had to be paid to the bootmaker and other juvenile outfitters, all of which required much time and patience. Vi, in the process of "trying-on," was reduced to tears, while Jackie underwent unknown tortures in the selection of sandals. At length the preparations were complete and the exodus took place.

The children occupied the corner of the railway carriage, and Miss Forman breathed again, for she had at least a few hours' respite till they arrived at their destination.

Jackie gently took a match-box out of his pocket.

"Guess what I've got here," he said with a smile to his sister.

"I don't know," she replied. "Worms, for bait?" —they had already decided that fishing was to form one of their holiday delights.

Jackie shook his head.

"Wrong. Guess again."

"Can't," replied Vi.

"Then I'll show you," and he opened the box slightly.

Instantly, two long active antennæ protruded anxiously from the box, and Vi drew back a little.

"What is it, Jackie?" she asked, nervously.

"Black-beetles," said her brother, in triumph.

"I thought it would be great fun to play with them on the journey."

"What a splendid idea!" said Vi. "We can feed them on the crumbs from the sandwiches."

Jackie, very proud of his foresight, opened the box a little wider, when, in a moment, a plump beetle bustled out and alighted on the paper Miss Forman was reading. Jackie hastily closed the box and hid it in

his pocket, fearing perhaps that she might resent his conduct and order the destruction of the remainder of his pets

The weary governess looked aghast at the brownish creature which was regarding her with some surprise from the top of the newspaper. She hastily brushed it on to the floor, where it instantly sought shelter beneath the seat.

"How horrible!" she said. "There is a black-beetle in the carriage."

Jackie and Vi, seeing at once by her expression that black-beetles were not popular pets in her eyes, sat as still as two little mice.

Jackie's mother shared Miss Forman's view of the situation, and endeavoured to dislodge the intruder by vigorously prodding at him with her parasol.

"It is too bad of the railway company," she said, "to put such dirty carriages on the line!"

Jackie silently kicked Vi, and both became intent upon the view from the carriage window, neither daring to look at the other for fear of giving way to the suppressed laughter which they were trying their best to stifle. In doing so he thoughtlessly crushed the precious box which contained the cockroaches, who, thus released from durance vile, made themselves quite at home in his pocket.

The train whirled along, past meadows wherein peaceful cows chewed the cud of contentment, through villages nestling round their time-worn churches like chicks about a mother-hen, over bridges, under bridges, until the cravings of two juvenile appetites sought to be stayed by lunch. Miss Forman produced a wicker basket which had hitherto reposed beneath the seat, and opened it. She shut the lid very quickly, for upon the very top of the sandwiches reposed the wandering cockroach, who had made his way through the wicker.

The offender was taken cautiously within the folds of a newspaper, and cast outside the railway carriage, adrift into the great beyond. Jackie murmured something about cruelty to animals, but was promptly suppressed; the weather was too hot for argument.

Luncheon finished, the children's hands were decidedly greasy, showing fragments of their meal.

"Now then, wipe your hands," said Miss Forman, "and you can go on looking out of the window."

Jackie pulled his handkerchief out of his pocket with a flourish, and with it came three very fine and lively cockroaches, who manifested the greatest concern at thus suddenly finding themselves thrust before the public gaze. Murder was out.

"Jackie," said Miss Forman, "how did those black-beetles get into your pocket?"

He produced the broken match-box.

"I suppose they got out," he said sorrowfully. "I'm sorry, 'cos I wanted to see them eat the crumbs, after lunch."

This temporary diversion distracted general attention from the offending insects, who hastily retired to the darker corners of the carriage, where they remained, despite repeated assertions on the part of one or other of the ladies in the carriage that a black-beetle was invading her skirts. So, after all, the cockroaches did help to amuse the children, though not in the way they had expected.

Jackie and Vi conversed together.

"What'd you be doing if you were back at home?" asked the former.

Vi thought for awhile.

"I know," she replied, with a flash of merriment in her eyes, as she leaned forward and whispered in Jackie's ear: "I should be going to the pond."

Jackie became very serious.

"I say, Vi," he observed in a low voice, "we've forgotten all about her."

"Who?" asked his sister.

"Lemna," whispered Jackie, very softly, so that the others should not hear.

"Oh, dear!" said Vi. "I'm sure she'll think we are cross with her. Whatever can we do?"

"Nothing," said Jackie, "until we get back; then we can explain all about it."

\* \* \* \* \*

When Jackie had said, "Wait till we get back," he little knew how great a change would have come over Pondland when he did return. September was well-nigh spent; the evenings were growing shorter and shorter, and the air had already in it the touch of chill October, which would strip the trees of their mantle of russet leaves.

After the first bustle of arrival their first thought was for the pond and Lemna. Often had they spoken of her during their holiday, and now they were near her once more. Jackie and Vi were in bed, glad to rest after the fatigues of the journey. What jolly, bronzed faces rested on those white pillows! And what brown little hands lay upon the counterpane! Their holiday had not been vainly spent.

"I say, Jackie," Vi remarked; "we *must* go and see Lemna to-morrow."

"Yes," replied Jackie, "'cos we've lots to tell her about what we saw, haven't we?"

"Poor Lemna," said Vi. "I hope she'll be glad to see us."

"Of course she will," replied Jackie. "Old Rover across at the farm came right out of his kennel as we drove up, and you should have seen how he wagged his tail when I called out to him!" Jackie had been permitted to sit beside the coachman on the box, and



had seen many things from thence which had escaped Vi, who had been condemned to ride inside, very much against her will.

For a moment that familiar fleecy cloud of light vapour appeared between the two beds, and the children saw the figure of Lemna. But oh! how changed she was since last they saw her! The coronet of flowers was drooping, and her face was pale and wan. She held out her arms as if entreating them to come to her, but the effort seemed too great, for the vision faded gently away. Vi was greatly distressed.

"Poor Lemna!" she repeated. "How ill she looks! I know she wants us, Jackie. Didn't you see her try to speak?"

"Yes," he replied. "I tell you what, Vi, we'll go there as soon as ever we can to-morrow."

When the morning came the children were agreeably surprised to learn that there would be no lessons that day. Miss Forman had to unpack and set matters straight before she could attend to her duties in the schoolroom.

"Hurrah!" cried Jackie, as he heard this encouraging piece of news. "Then we can play about the garden can't we, Miss Forman?"

"Yes, if you don't get into mischief," she replied, and they rushed headlong out of the house.

"That's splendid!" said Vi. "We can now go and see Lemna."

"How changed it all seems!" said Jackie. "Not a bit like it was when we left."

The summer flowers were over; the virginia creeper had mantled the house with its flaming trails; here and there stiff dahlias held up their heads and vied with the chrysanthemums. The pond itself looked desolate as they stood on the margin. Its white flowers were gone, and the vivid green of the plants was changing

to a sickly yellow. The whirligigs still danced their complicated quadrilles, but even they seemed less alert than usual. The boatman rested lazily upon his oars. The frogs were gone; their brilliant eyes no longer peeped from the water as they floated lazily in the sunshine. Vi gave a little shudder.

"How strange it is!" she said. "It seems as if the pond were almost deserted. I wonder where Mr. Natterjack is. Mr. Natterjack!" she called aloud—"Mr. Natterjack!"

But there was no reply, for Natterjack had gone to his winter quarters.

"I hardly dare to jump in, Jackie," she continued.

"But Lemna," said her brother. "We must see Lemna."

"Come, come," said a faint voice from the pond.

Vi crept close to Jackie.

"She's calling us!" she said.

Hand in hand they plunged into the pond and sank gently to the bottom, but the water seemed cold and chill. They looked around and saw Lemna resting languidly in the tangled weed.

"Oh, Lemna!" said Vi. "What is the matter? How pale you look! Are you ill?"

The fairy smiled wearily in response.

"No, children; not ill, but very tired. The glorious summer is past, and the pond is going to rest until spring-time. See, the leaves are falling here, as they do on land."

The children, looking up, saw the buds and seeds of the frog-bit fall away from their parent plants, whose leaves and stems were dead, and float gently downwards to the soft mud which would be their bed until the spring should summon them to rise once more. The duckweed, too, was sinking fast—the autumn of Pond-land had begun in the submerged forest.

Lemna rose.

"Come, children," she said. "I feared I might not see you before I went to sleep, but now I am glad. Let us give one last look at Pondland together."

There was a stillness in the Pond City which they had not noticed before. Here and there the young newts, now no longer tadpoles, swam silently towards the bank.

"How pretty they are!" said Vi. "And how tiny!"

"Yes," replied Lemna; "they are now leaving their home for winter quarters; but they will grow. Each year will add an inch or more to their size, until they return as full-grown newts."

Jackie suddenly remembered something.

"Oh, Lemna!" he cried; "what about the old newt that had his leg bitten off by the ogre? Did he die?"

"No," replied Lemna. "Why should he?"

"I think I should, if a tiger had bitten off my leg," said Jackie.

A dark shadow here approached from the forest; it was Mr. Newt himself.

"Here he comes," said Vi. "I do so want to see how he manages on three legs."

Mr. Newt, always lazy, circled around them as he sought the air.

"It's not him," said Jackie; "it's another. This one's got four legs."

"You are not right, Jackie," said Lemna. "This is your old friend the warty newt, only he has been busy while you were away; he has grown himself a new leg."

"What!" cried Jackie. "Can he get a new leg whenever he loses one?"

"Yes," replied Lemna.

"What a lark!" said Jackie. "But it's jolly clever of him, all the same. I wish we were like that, because

then we could play at being doctors, and I could cut your leg off, Vi, and it wouldn't matter a bit, because you could grow a new one whenever you wanted."

Vi, however, seemed doubtful as to the advantage of this arrangement.

Mr. Newt now descended, and, with a graceful curtsy to Lemna, slowly swam shorewards.

"He's going, too," said Lemna. "All my beautiful creatures are leaving me."

Just then one of the ogres made a dash at a sleepy whirligig, and seized it.

"He's got one!" said Jackie. "That's the first time I've ever seen a whirligig caught."

Lemna shook her head.

"It was not a live whirligig, Jackie," she said. "It was dead," and she heaved a gentle sigh. "Nearly all the whirligigs die in the cold."

"How sad!" said Vi. "But what becomes of those who don't die? Do they go on dancing all the winter?"

"How can they," said Jackie, "when the pond is covered with ice?"

"They burrow into the mud," explained Lemna, "and go to sleep."

"What a long sleep they must have," replied Jackie. "Aren't they hungry when they wake up?"

"I expect they are," said Lemna.

"I suppose they are tired after so much dancing," said Vi.

"Perhaps," replied Lemna.

"Look at all those funny little shells!" exclaimed Vi. "I never noticed them before. Why, they are all swimming about!"

Lemna's face brightened.

"They are the autumn legacy of the mussels," she said with a smile. "They are baby mussels."

"They are ever so much jollier than their parents," said Jackie; "much more lively, which is a comfort just now, as the pond seems half asleep."

The little mussels moved about, restlessly opening and shutting their shells, and, seemingly, very happy indeed.

"They will soon settle down upon the weed," said Lemna, "where they will wait until they are grown up."

The spot seemed alive with the tiny creatures.

"There must be hundreds of them," said Vi.

"More than that," replied Lemna, proudly: "millions. Each mussel in this pond contributes two or three million babies every year."

"Why, it's almost as bad as the cyclops," said Jackie. "But I suppose they get eaten up, don't they?"

"Yes," explained Lemna. "They are eagerly sought after by the ogre, and the boatman, and the young of your great friend the silver beetle, who all take a great interest in them."

"Talking of snails," said Vi, "what has become of *Planorbis*, the catherine-wheel shell? He's not at work on the weeds to-day."

"There is no need for him," Lemna replied. "The weeds have ceased to grow so furiously, so he has gone to the mud, to rest till he is wanted again."

"I never saw such lazy people in my life!" exclaimed Jackie. "They all seem to be going to rest. Look there!" he added, pointing to the shining houses of the water-spiders, "even the spiders are all indoors, instead of bustling up and down as they usually do."

"Yes," said Lemna; "they grow dull in the cold, and don't move about so much. Then the boatman has gone to rest in the mud; all are going, or have gone. I, too, must go to sleep until the spring."

Gently she reclined upon the soft velvet of the muddy floor.

"I am so tired!" she said dreamily. "Good-night! Good-night!" Her eyes closed, she gave a sigh, and sank gently to sleep.

The leaves of the duckweed dropped apace; one after another they fell like snowflakes on the sleeping form of the pond Queen, concealing her beneath the coverlet. Jackie and Vi were lost in amazement.

"It's just like the Babes in the Wood!" said she.

"Yes," he replied. "Only she hasn't got any horrid uncle, and," he added, "she will wake up again."

The leaves fell faster and faster; her body was now covered, but still the mound grew larger and larger.

"Oh, dear!" said Vi. "It's awfully sad, after all the jolly times we've had down here! Good-bye, Lemna dear"; and she bent and kissed the pale face of the sleeping fairy, whose lips seemed to part in a sweet smile.

"Well," said Jackie, "it's no use waiting any longer. Good-night, Lemna. I hope you'll have a good sleep till spring comes once more. Come on, Vi."

They slowly rose to the surface, and, leaping ashore, with one lingering glance at the pond, walked homewards.

THE END

