



AN APRIL DAY.

Ayuntamiento de Madrid

VOL.



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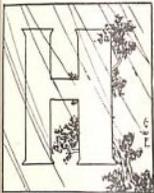
VOL. XV.

APRIL, 1888.

No. 6.

WHAT MAKES IT RAIN?

BY GEORGE P. MERRILL.



HOW often on showery days little folks have asked themselves or their elders, "What Makes it Rain?" and how very seldom they have been able to get a satisfactory reply! Sometimes those who know have no time to tell, and oftener, those who have plenty of time do not find it quite convenient to explain.

Let us sit down and talk it over, and see if we can discover, first, why it rains at all; and then, when it does rain, why it does not rain in the same way over the whole earth.

Did you ever stop to think, when you looked out of the window and saw dull, gray clouds from which the rain was so steadily pouring, and which seemed to shut in the world all around, that, in reality, they extended over a very small part of the country; that somewhere else, perhaps only twenty or thirty or a hundred miles away, the sun was shining, and all was bright and beautiful? This is really the case. For storms, however long and dreary, do not extend over many miles; and though it always is raining at some place in the world, yet always and at the same time it is pleasant somewhere else. Now, let us see why this is.

Suppose that on a warm summer afternoon we were to bring a pitcher of clear, cool water, fresh from the well, and to place it on the table in the dining-room. Now, no matter how carefully we may have dried the pitcher before bringing it in, we shall discover, if we watch closely, that the out-

side soon becomes wet or misty; and that the mist grows heavier and then gathers into drops and perhaps even runs down the pitcher to the table.

Now, where does this water come from? Not through the sides of the pitcher, that is impossible; but from the air. We can not see it, perhaps, but still it is there, in the state of vapor. How came it there? Did you ever notice, after a rain, how in a short time the puddles became dry, and how the moisture disappeared from the grass and leaves, as soon as the sun shone out and the wind blew? Or, did you ever notice that if you left a pan of water out-of-doors the water each day grew less and less, until all was gone and the pan was dry?

All the water that was in the puddles, on the grass and leaves (except that which soaked into the ground) and in the pan, was taken up as vapor into the air — has "evaporated," as we say. The same thing happens when water boils, only it then evaporates more rapidly, and we can see the vapor arising as steam. If you live near a river, or in a country where there are brooks, perhaps you can see this evaporation actually taking place. Get up early some morning, before the sun rises, and look out toward the river. You may see a long line of mist or fog, like a big, white cloud, hanging over the water. Now, this mist is only the water evaporating from the river and is just now visible as fog because the air is cool. After the sun has shone, the air becomes warmed and the fog disappears, but the evaporation goes on, nevertheless. Indeed, it is going on continually, and all over the

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earth; so that if the water were not returned to us as rain, snow, and dew, all the oceans, lakes, and rivers would in time dry up and disappear. All the trees, grass, and plants would then wither, and our beautiful land would become as dry and parched as the great desert of Sahara.

Having now learned how the water is drawn into the air, let us see how and why it comes down again as rain or snow or dew.

There is a singular thing about this moisture, which is this, the air will hold only a certain quantity of it, and that quantity depends upon the temperature of the air. But warm air always holds more than cold; so, however warm the air may be, or however much moisture it may contain as invisible vapor, we have only to cool it enough and the vapor *condenses*, as we say; that is, it becomes visible, first as fog or mist, and then as drops of water, such as we see on the pitcher. And the reason we see a white fog rising at night, after the sun goes down, is only because the water, which has been evaporating all day and going up into the air as invisible vapor, becomes condensed to fog by the cooling of the air when the sun's heat is withdrawn. When the sun rises, the fog disappears; but the vapor still ascends, and when it reaches the altitudes where the air is always cool, it becomes condensed again as fog, only it is then called "clouds." And if it becomes condensed enough to form in drops of water, they fall, and it "rains"; or, perhaps, it snows, for snow is but frozen rain.

Thus we have learned that rain is caused by the cooling and condensation of the moisture in the air. Bearing this in mind, let us study the surface of our country and see why the rain does not fall equally on all parts of it; instead of falling very abundantly in some places, as in New England and some of the Gulf States, and very sparingly in many parts of the West, as in New Mexico and Arizona.

The winds which blow to this country from the south and the east, being warm tropical winds, can hold much moisture, and are full of this invisible vapor of water which they have taken up from the Gulf of Mexico and the ocean. Coming to the cooler land, they gradually become cooled. Their moisture, therefore, falls as rain while they pass over the land, till, by the time they reach western Kansas and Colorado, the moisture being gone, no more rain can fall. But the winds which come to this country from the north and west are colder than the land, and, as they sweep over it, toward the south and east, they gradually become warmer; so that instead of giving up their moisture in the form of rain, they are constantly taking up moisture from the earth. It is for this

reason that our north and west winds are dry winds, and mean fair weather; while the south and east winds bring rain. For this reason, also, the Eastern and Southern States have an abundance of rain; while the Central and Western States are often very dry.

And there is still another point to be considered. We already have noted the fact that at great heights the air is cooler. Hence, when a warm wind full of moisture comes blowing across the country and strikes a mountain range, it bends upward and rises high in the air to pass over. In so doing it becomes cooled, giving up its moisture, and passes over to the other side a dry wind. It is for this reason that some islands, like the Hawaiian Islands in the Pacific Ocean, where the winds blow almost always from the same direction, are subject to almost continuous rain on one side, while on the other rain is exceedingly rare. This also shows why California, west of the Sierra Nevada mountains, receives sufficient rain to make the soil fit for cultivation; while Nevada, on the east, is nearly rainless and barren. The moisture coming from the south and east is all condensed by the Alleghany, the Rocky, and the Wahsatch ranges; while that from the west is cut off by the Sierras. Hence the great extent of country known to geologists as the Great Basin—which reaches from Oregon on the north to Mexico on the south, and from Colorado on the east to the Sierras on the west, comprising an area of not less than 200,500 square miles which is nearly equal to the whole of France—receives over a great part of its surface an annual rainfall of not over four inches, and is therefore a desert.

There are many other interesting facts about this vapor. Let us consider a few.

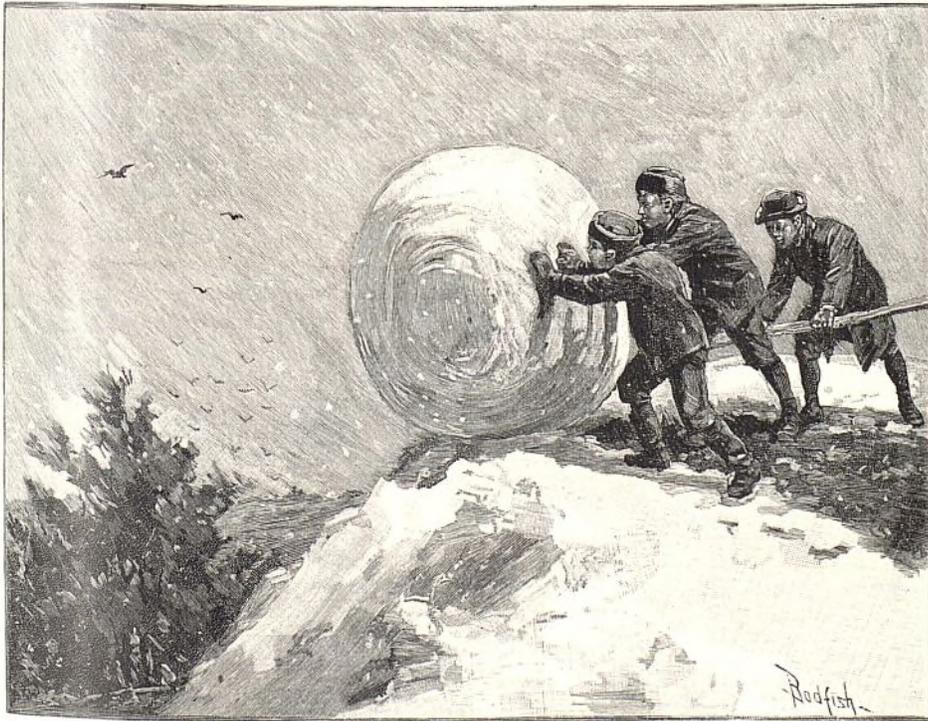
After the sun goes down at night, the earth, cooling rapidly, soon cools the air near it, which consequently gives up a part of its moisture. This moisture forms in drops on the grass and leaves, just as it does on the cold pitcher in the warm room, and we call this "dew." If it becomes cold enough, the dew freezes, and we then have a "frost." On cloudy nights a frost is very rare, simply because the clouds act as a tent or blanket, and prevent the earth from becoming cooled so rapidly. Professor Tyndall has calculated that of all the heat daily received by the earth from the sun and given off again into space, one-tenth is intercepted and absorbed by the vapor of water within ten feet of the earth's surface. Hence, the vapor forming the clouds above, and extending in its invisible form down to the earth, absorbs the heat given off; and, like the glass screen in a hot-house, prevents the earth becoming so cool as to

freeze the dew. This fact will enable us to understand, in part, why it is that deserts and all dry regions are subject to such sudden extremes of temperature, being very hot when the sun is shining, but becoming chilly as soon as the sun goes down.

Moreover, water, and consequently anything wet with water, takes up and parts with heat much more slowly than dry land; and water and other liquids, when evaporating, take away a great amount of heat with the vapor. The more rapid the evaporation, the greater the amount of heat taken up in a given time. This is the reason a drop of ether feels cold when placed on the hand. It evaporates so rapidly as to take away heat from the skin quicker than it is restored and produces the same feeling as would a piece of ice.

Now we are ready to understand why it is that a hot day in dry climates is much less oppressive than in moist climates. People who live in the East and South, where the air is full of moisture, read that the temperature on a hot day in the West rises as high as 100° or 110° , and they think

the West must, therefore, be a very uncomfortable place in which to live. But in reality it is not so, and for these reasons: In the dry Western air the perspiration from the body evaporates so rapidly as to keep the skin cool, and none of the heat given off is held in by a screen of moist air; so the body is kept cooler than it would be in a moist climate. But in the moister atmosphere of the East evaporation is slower, and the heat of the body does not radiate so rapidly into space. Hence, the perspiration gathers in great drops, and saturates the clothes, while pulses throb and heads ache, till relief is sought by fanning. And this fanning cools the skin only because it increases evaporation by blowing air across its surface. This also explains why a warm, overcast, muggy day is so oppressive. I have ridden horseback all day over the dry prairies of Montana, with the temperature above 100° in the shade, and have not suffered the slightest inconvenience from the heat; while with the temperature at 90° in the humid air of Washington, I have sat in my office so overcome as to be scarcely able to work at all.

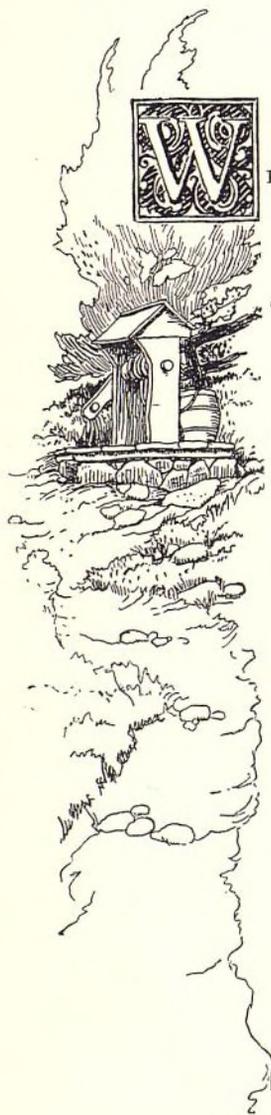


"NOW SHE 'S OFF!"



A Rhyme for a Rainy Day.

BY JULIA M. COLTON.



WITH pitter-patter, pitter-patter, on my window-pane,
Tapped chipper little visitors, the tiny drops of rain;
They did not ask to enter, but in liquid tones I heard
This story, which, as told to me, I tell you word for word:

“Within a cool, deep well we lived, quite happy, side by side,
Until an empty bucket came, and asked us out to ride;
Then springing in, away we went, drawn up into the air,
And a pretty china pitcher stood waiting for us there.

“Beneath that pitcher’s brim we thought much happiness to see;
But soon a lump of ice popped in, with whom we can’t agree,
For though Ice claimed relationship before it married Frost,
With such a hard, cold-hearted thing all sympathy is lost.

“Ice tried to steal our heat away, but Air was on our side,
And when it felt how cold we were, it just sat down and cried;
You might have seen the tears upon the pitcher where they pressed,
Till Ice itself was forced to melt, and mingle with the rest.

“But next I have to tell you of a most amazing thing,—
Above a blazing fire we were made to sit and sing,
Till Bubbles brought the message up, that Heat would set us free;
When, boiling hard, we just steamed off, and gained our liberty!

“We bounded off with motion swift, but met a colder wind,
Which blew so fast that everything grew cloudy to our mind.
We cared not to go higher then, we felt a heavy chill,
And down we came quite suddenly upon your window-sill.”

Now little people everywhere, there is a saying old
That “Truth lies at the bottom of the well;” and, we make bold
To say: Within this bucketful of water you may find
Some grains of truth drawn up to store within each busy mind.

THE RED PARTRIDGE TELLS HIS STORY.

BY MARIA ELLERY MACKAYE.

(From the French of Alphonse Daudet.)

You know that partridges go about in coveys, and lodge together in deep furrows, ready at the first alarm to rise in scattered flight, like a handful of grain thrown from the hand of the sower. Our own covey is large and happy; and our home is where a wide plain skirts a deep wood. There we find good food and safe shelter. So, ever since my feathers were grown, and I learned to run, I have had plenty to eat, and have found life very pleasant.

I have had only one anxiety,—the opening of the hunting-season. Our mothers were always talking about it to each other in whispers. One day an old partridge, who saw that I looked uneasy about what I overheard, said: "Never mind, Ruddy" (they call me Ruddy, because my beak and legs are so red), "don't be afraid. When the hunting-season opens, you shall go with me, and I am sure that nothing will happen to you." This old partridge is very wise, and still spry, although the horse-shoe mark is quite plain on his breast, and he has a few white feathers here and there. When he was young he was wounded in one wing, and, since this makes him rather clumsy, he always looks carefully before flying, takes his time, and gets along very well. He used sometimes to carry me

from the chimney, and the door and the windows opened, it will go hard with us." I believed what he said, knowing that he was a bird of great experience.

The other morning, at daybreak, I heard some one in the furrow calling softly: "Ruddy! Ruddy!" It was my old friend. His eyes were starting from his head. "Come quickly," he said, "and do as I do." I followed as well as I could, half asleep, not flying nor hopping, but running like a mouse between the great clods of earth. We went toward the wood, and as we passed the little white house, I saw that smoke was rising from the chimney, that the shutters were down, and before the wide-open door stood a group of hunters, all equipped, and surrounded by leaping dogs. As we passed, one of the hunters cried: "Let us take the plain, this morning, and leave the wood till after breakfast." Then I understood why we must go to the forest. My heart beat fast, and I grew very sad, thinking what might befall our poor friends whom we had left behind. Suddenly, just as we reached the edge of the wood, the dogs started and ran toward us. "Keep close to the ground,—close!" said the old partridge, crouch-



"OUR OWN COVEY IS LARGE AND HAPPY."

to the entrance of the wood, where, deep down among the tall chestnut-trees, there is an odd little white house, as quiet as an empty burrow, and always shut up.

"Look well at that house, little one," said the old partridge. "When you see smoke coming

ing as he spoke. At this moment, not more than ten paces from us, a frightened quail spread her wings, opening her beak very wide, and flew upward with a cry of terror. I heard a deafening noise, and we were enveloped in a white mist, that smelt queer and felt quite warm, though the sun

had just risen. I was so terrified that I could not run. Fortunately, we were sheltered by the wood. My comrade hid behind a young oak; I crept up close to him, and we lurked there, looking out between the leaves. In the fields all around there was firing. At every report I shut my eyes; and whenever I dared to open them again I saw the wide plain, and the dogs searching in the high grass or ferreting among the sheaves, running round and round as if they were distracted. The hunters, their guns glittering in the sun, called after them and spoke angrily to them.

Once, out of a little cloud of mist, I thought I saw something falling that looked like scattered leaves, although there was no tree near. But my old partridge said these were feathers; and presently, sure enough, not far from us a superb gray partridge dropped in a furrow — and his wounded head fell back. When at last the sun rose high and it became very warm, the shooting abruptly ceased. The hunters returned to the little house, where we heard a great fire crackling. They marched along, their guns upon their shoulders, laughing, and talking about their shots; and the tired dogs came after, with tongues lolling out. "They are going to breakfast," said my companion; "let us also get something to eat." So we went into a buckwheat-field close at hand, — a great black-and-white field, all in bloom, smelling like almonds. Beautiful pheasants with russet plumage were already feeding there, stooping their red crests for fear of being seen. They were not so haughty as usual and asked us for news, inquiring whether we knew that one of their family had fallen.

After a while the hunters became noisy over their breakfast, and we heard corks popping and glasses clinking. My old friend said that it was time to seek shelter, and we made our way to the forest. At first you would have said that the wood was fast asleep; the little pool where the deer came to drink was stirred by no lapping tongues, and in the thyme about the warren, there was no trace of a rabbit; but, after a time, we could feel a mysterious shudder everywhere, as if each leaf, each blade of grass, was shielding a threatened life. The denizens of the woods have so many hiding-places, — burrows, tangled thickets, bramble-heaps, piled faggots, and the little ditches where water remains so long after rain. I confess that I wished myself in one of these places, but my companion said it was better to stay where he could see what was coming and have the open air all about him.

It was well that we left the buckwheat-field when we did, for the hunters soon came to the forest. Oh! — I shall never forget that first firing through

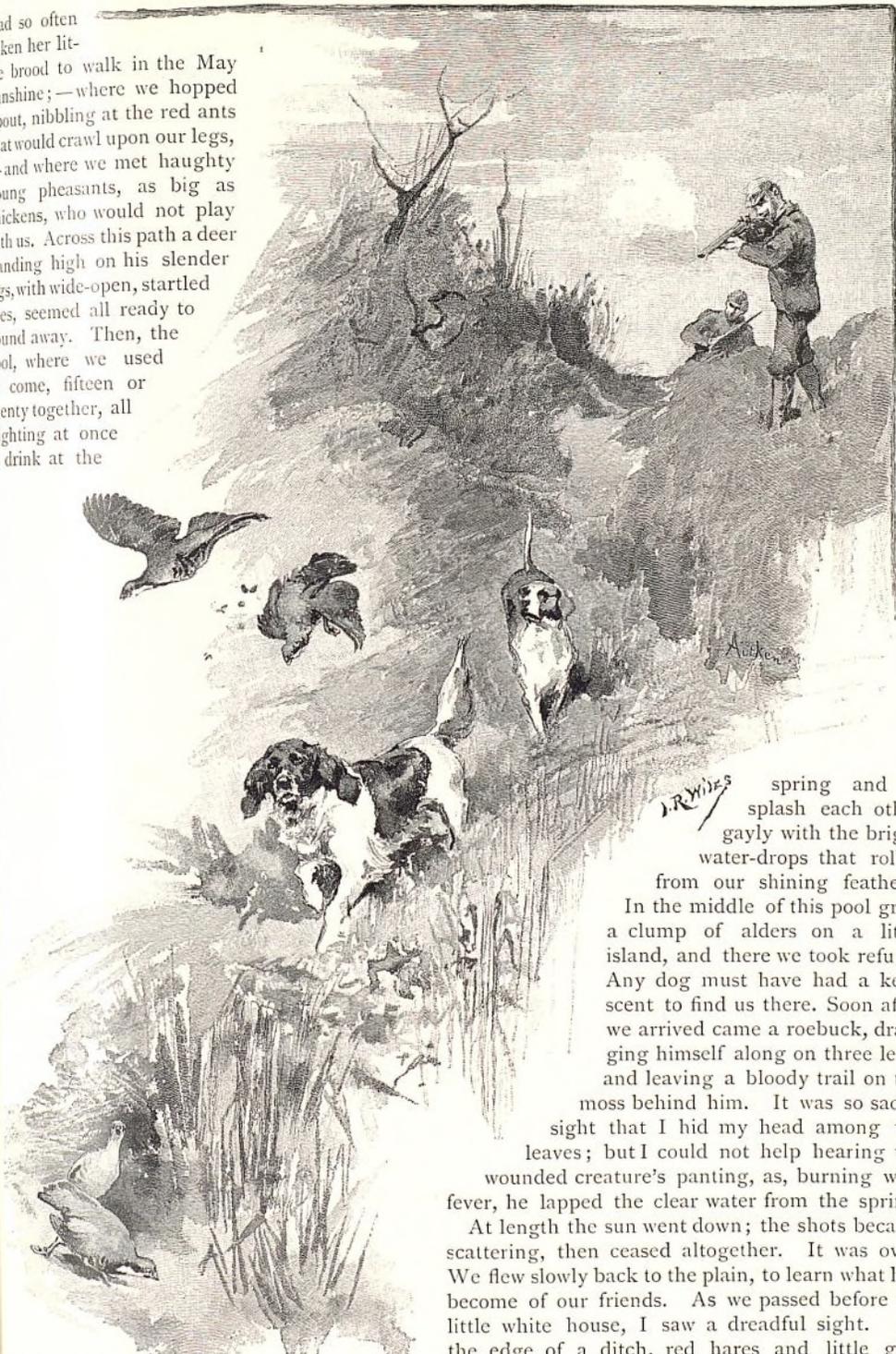
the wood, those shots that made holes in the leaves, as hail does in April, and scarred the bark on the trees. I shall never forget how a rabbit leaped over the road, tearing up tufts of grass with his feet, and how a squirrel scampered down a tree close by us, knocking off the green chestnuts in showers. Large pheasants rose up with heavy flight; and the dry leaves, driven about by the gusts from the gun-shots, made a tumult among all the lower branches, arousing, putting to flight, and terrifying every living creature in the woods. An owl came out of a hollow in the tree near which we were hiding, and rolled his great, stupid eyes about, bewildered by fear. And then there were blue dragon-flies, and bees, and butterflies, — poor frightened things! — all fluttering about. A little cricket with scarlet wings alighted close to my beak, but I was too frightened, myself, to profit by his terror.

The old partridge kept perfectly calm. Listening attentively to the shots and the barking of the dogs, when they came near he would make a sign to me, and we would go a little faster, keeping well under cover. Once in crossing a path guarded at each end by a hunter, I thought we were lost. There was one great, tall fellow with black whiskers, who rattled his whole equipment, cartridge-box, hunting-knife, and powder-horn, whenever he moved, and his heavy, leather gaiters, buckled up to his knees, made him look still more formidable. At the farther end of the path, the other hunter, a little old man, was leaning against a tree, smoking a pipe and winking his eyes, as if he were very drowsy. I was not afraid of him; but — "Oh, you think *that* a terrible fellow, yonder, with the gaiters! — You are a simpleton, Ruddy," said my companion, laughing, and he flew up almost at the feet of the terrible sportsman. And, truly, the poor man was so intent upon his equipment, so busy admiring himself from top to toe, that we took him by surprise, and by the time he had brought his gun to his shoulder we were far away, out of his reach!

Oh, if hunters, when they think themselves all alone in the woods, only knew how many little staring eyes are watching them from behind bushes, — how many little pointed beaks are being held tight shut to prevent laughing aloud at the hunters' awkwardness!

On we went. Having nothing to do but to follow my old companion, my wings kept time with his, and I folded them whenever he rested. I can still see, as in a dream, all the places we passed — the warren, rosy with heather; the rabbit-holes at the foot of the yellow beeches; the great oak wood, where I knew that danger was stalking abroad; and the little green path, where my mother-partridge

had so often taken her little brood to walk in the May sunshine;—where we hopped about, nibbling at the red ants that would crawl upon our legs, —and where we met haughty young pheasants, as big as chickens, who would not play with us. Across this path a deer standing high on his slender legs, with wide-open, startled eyes, seemed all ready to bound away. Then, the pool, where we used to come, fifteen or twenty together, all alighting at once to drink at the



J. R. Wiles splash each other
gayly with the bright
water-drops that rolled
from our shining feathers.

In the middle of this pool grew a clump of alders on a little island, and there we took refuge. Any dog must have had a keen scent to find us there. Soon after we arrived came a roebuck, dragging himself along on three legs, and leaving a bloody trail on the moss behind him. It was so sad a sight that I hid my head among the leaves; but I could not help hearing the wounded creature's panting, as, burning with fever, he lapped the clear water from the spring.

At length the sun went down; the shots became scattering, then ceased altogether. It was over. We flew slowly back to the plain, to learn what had become of our friends. As we passed before the little white house, I saw a dreadful sight. On the edge of a ditch, red hares and little gray rabbits lay side by side, their eyes dim as if from weeping, and their small paws joined as

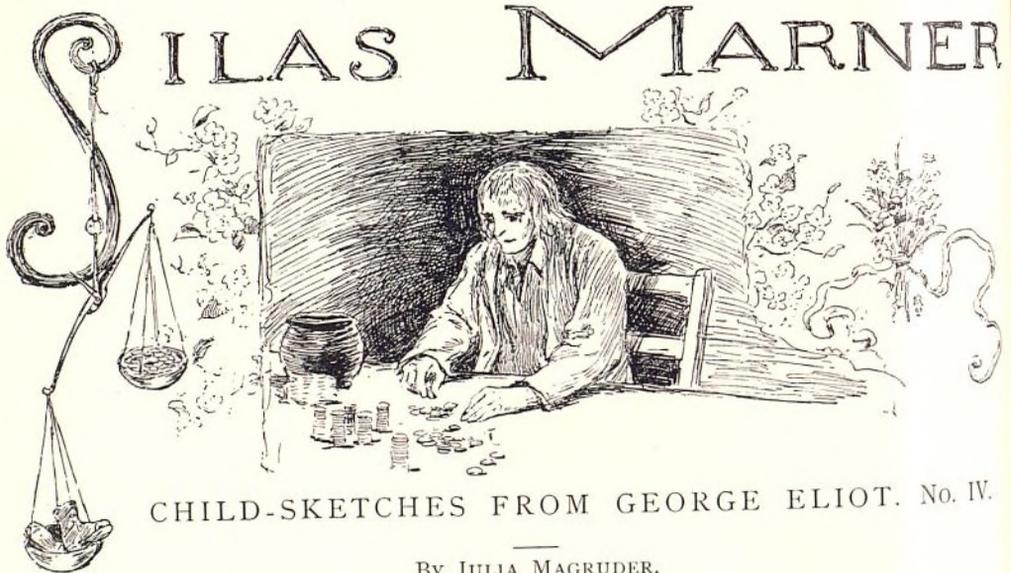
"WHEN THE DOGS CAME NEAR, THE OLD PARTRIDGE WOULD MAKE A SIGN TO ME AND WE WOULD GO A LITTLE FASTER, KEEPING WELL UNDER COVER."

if in death they were asking for mercy. Beside them were red and gray partridges; some with the horse-shoe mark, like my comrade, and others, with down under their feathers, like me. Is there any sadder sight than a dead bird? Wings are so full of life that it gives one a chill to see them stiff and cold, folded forever. There, too, lay a great, proud roebuck as if fast asleep, his rosy tongue protruding a little from his mouth. The hunters were smoking and stooping over all this slaughter; counting, and pulling the animals about before stowing them away in their game-bags. The dogs, in leash for the road, pricked up their ears and wrinkled their noses as if all ready to dash again into the cover.

As the red sun set and the hunters walked away, casting long shadows across the clods of earth and

along the paths glistening with evening dew, oh,—how I hated them, men and dogs, the whole cruel, murderous band! Neither my companion nor I had the heart to say our usual good-night to the day that was ending. All along our way we saw wretched animals fatally hurt by chance shots and left to the tender mercies of the ants; field-mice biting the dust; swallows which had been arrested in their swift flight, and were now lying on their backs and holding up their stiff little legs to the night, which came down suddenly (as it does in autumn)—starry, but cold and damp.

Most heart-rending of all it was to hear, in the edges of the woods, over the meadows, and all along the sedgy river-bank, among the reeds, sad, far-away, anxious calls to which, though repeated again and again, no answer came.



CHILD-SKETCHES FROM GEORGE ELIOT. No. IV.

BY JULIA MAGRUDER.

SILAS MARNER was a queer-looking, short-sighted, silent man, who lived all alone "in a stone cottage that stood among the nutty hedgerows near the village of Raveloe, and not far from the edge of a deserted stone-pit." He was a weaver and worked hard at his loom, from morning till night, never going to any one's house and never asking any one to his. No one knew where he had come from or what his history had been before his coming to Raveloe, for he never said

an unnecessary word, but went about silent and gloomy, doing his work well, and being well paid for it. His looks were so strange and his ways so in keeping with them that the idle gossips of the neighborhood told all sorts of foolish stories about him, and believed there was something very dark and mysterious about his past history.

This, indeed, was true; but it was nothing of a startling or sensational nature — only that this man had suffered a terrible injustice from people he had

loved and trusted, and had been cruelly injured and betrayed.

When Silas Marner turned his back upon those people and the country in which they lived, he cared no more for human companionship; but lived on, unloving and unloved, until he had become a dull, cold, selfish man. The one thing he now cared for was the money he made by weaving, which was generally paid to him in bright gold guineas, and these he hoarded with greedy care and concealed in a hiding-place made by the removal of two loose bricks in the floor under his loom. He would deny himself everything but the bare necessities of life, in order to increase his store of shining coins; he loved to spread them out before him when he sat down to his scanty meal, after his day's work was done, and to build them up in piles and rows, and gloat over them, and handle them, as if the pieces of metal had been something worthy of love.

As time passed, his hoard grew and his love for it increased with its growth. At last, one evening he went as usual to get out his precious gold, in order that he might indulge in the only taste of pleasure that was known to him now, and he found the hiding-place — empty! Some one had found out his secret and stolen his gold, to the last shining guinea! It was in vain that he peered into the darkness and felt all about with shaking hands. It was gone! Almost beside himself, he rushed down to the village and gave the alarm, and search was promptly made; but no trace of the money or the thief could be found. At last the search was abandoned, and Silas returned to his empty home, feeling, for the second time, that he was desolate and deserted. The pretty, bright coins that he loved so to handle and to look at had given him a sense of companionship, and he missed them as if they had been human beings. He would sit at his loom all day, thinking about them and moaning over his loneliness, and when evening came there was nothing to do with his time of rest but to grieve for them again.

He never thought now of locking his door when he went out, and one evening he had been so absent-minded as to leave it wide open; and when he came in, after a short absence, "turning toward the hearth, where the two logs had fallen apart, and sent forth only a red, uncertain glimmer, he seated himself on his fireside chair, and was stooping to push his logs together, when, to his blurred vision, it seemed to him as if there were gold on the floor in front of his hearth. Gold! — his own gold — brought back to him as mysteriously as it had been taken away! He felt his heart beat violently, and, for a few moments, he was unable to stretch out his hand and grasp

the restored treasure. The heap of gold seemed to glow and get larger beneath his agitated gaze. He leaned forward at last, and stretched forth his hand; but instead of the hard coin, with the familiar, resisting outline, his fingers encountered soft, warm curls. In utter amazement, Silas fell on his knees and bent his head low, to examine the marvel: it was a sleeping child — a round, fair thing, with soft, yellow rings all over its head. Could this be his little sister come back to him in a dream — his little sister whom he had carried about in his arms for a year before she died, when he was a small boy without shoes or stockings? That was the first thought that darted across Silas's blank wonderment. *Was* it a dream? He rose to his feet again, pushed his logs together, and, throwing on some dried leaves and sticks, raised a flame; but the flame did not disperse the vision — it only lit up more distinctly the little round form of the child and its shabby clothing. It was very much like his little sister." "He had a dreamy feeling that this child was somehow a message come to him from that far-off life; it stirred fibers that had never been moved in Raveloe — old quiverings of tenderness — old impressions of awe at the presentiment of some Power presiding over his life; for his imagination had not yet extricated itself from the sense of mystery in the child's sudden presence, and had formed no conjectures of ordinary, natural means by which the event could have been brought about.

"But there was a cry on the hearth; the child had awaked, and Marner stooped to lift it on his knee. It clung round his neck, and burst louder and louder into that mingling of inarticulate cries with 'mammy' by which little children express the bewilderment of waking. Silas pressed it to him, and almost unconsciously uttered sounds of soothing tenderness, while he bethought himself that some of his porridge, which had got cool by the dying fire, would do to feed the child with if it were only warmed up a little.

"He had plenty to do through the next hour. The porridge, sweetened with some dry brown sugar from an old store which he had refrained from using for himself, stopped the cries of the little one, and made her lift her blue eyes with a wide, quiet gaze at Silas, as he put the spoon into her mouth. Presently, she slipped from his knee and began to toddle about, but with a pretty stagger that made Silas jump up and follow her lest she should fall against anything that would hurt her. But she only fell in a sitting posture on the ground and began to pull at her boots, looking up at him with a crying face, as if the boots hurt her. He took her on his knee again, but it was some time before it occurred to Silas's dull, bachelor mind

that the wet boots were the grievance, pressing on her warm ankles. He got them off without difficulty, and baby was at once happily occupied with the primary mystery of her own toes, inviting Silas, with much chuckling, to consider the mystery too. But the wet boots had at last suggested to Silas that the child had been walking on the snow, and this roused him from his entire oblivion of any ordinary means by which it could have entered or been brought into his house. Under the prompting of this new idea and without waiting to form conjectures, he raised the child in his arms and went to the door. As soon as he had opened it there was the cry of 'mammy' again, which Silas had not heard since the child's first hungry waking. Bending forward, he could just discern the marks made by the little feet on the virgin snow, and he followed their track to the furze-bushes. 'Mammy,' the little one cried again and again, stretching itself forward so as almost to escape from Silas's arms, before he himself was aware that there was something more than the bush before him — that there was a human body, with the head sunk low in the furze and half-covered with the shaken snow."

This was the little child's mother, a poor creature whom the falling snow and gathering darkness had overtaken as she was walking with the child in her arms; and she had sunk down unconscious by the furze-bushes, near Silas Marner's house. The little one, waking and finding herself in the dark and cold, had seen the light through Silas's open door and made her way to it, and under the influence of the grateful warmth of the hearth had again fallen asleep, to awake to care and tenderness and love; but the unfortunate mother, lying outside in the snow, had passed into the sleep that, in this world, has no waking.

To the surprise of every one, when the neighbors spoke of sending the baby to "the parish," Silas refused to give her up. The little child clung to him and seemed to know him, and he rebelled at the thought of being made to part with her. So, as there was nobody to dispute the privilege with him, it was agreed he should keep her. Silas consulted with a good woman who lived near by, whose name was Mrs. Dolly Winthrop, as to "what he should do about getting some clothes for the child."

"'Eh, Master Marner,' said Dolly, 'there's no call to buy no more nor a pair o' shoes; for I've got the little petticoats as Aaron wore five years ago, and it's ill spending the money on them baby-clothes, for the child 'ull grow like grass i' May, bless it — that it will.'

"And the same day Dolly brought her bundle and displayed to Marner, one by one, the tiny garments, in their due order of succession, most

of them patched and darned, but clean and neat as fresh-sprung herbs.

"This was the introduction to a great ceremony with soap and water, from which Baby came out in new beauty, and sat on Dolly's knee, handling her toes and chuckling and patting her palms together with an air of having made several discoveries about herself, which she communicated by alternate sounds of 'gug-gug-gug' and 'mammy.'

"'Anybody 'ud think the angils in Heaven could n't be prettier,' said Dolly, rubbing the golden curls and kissing them. 'And to think of its being covered wi' them dirty rags — and the poor mother — froze to death; but there's Them as took care of it and brought it to your door, Master Marner. The door was open and it walked in over the snow, like as if it had been a little starved robin.'

"'You 'll happen to be a bit moithered with it while it's so little; but I 'll come and welcome and see to it for you.'

"'Thank you — kindly,' said Silas, hesitating a little, 'I 'll be glad if you 'll tell me things. But,' he added, uneasily, leaning forward to look at Baby with some jealousy, as she was resting her head backward against Dolly's arm, and eyeing him contentedly from a distance, — 'But I want to do things for it myself, else it may get fond o' somebody else and not fond o' me. I've been used to fending for myself in the house — I can learn, I can learn.'

"'Eh, to be sure,' said Dolly gently. 'I've see men as are wonderful handy wi' children.'

"'You see this goes first, next the skin,' proceeded Dolly, taking up the little shirt and putting it on.

"'Yes,' said Marner, docilely, bringing his eyes very close, "whereupon Baby seized his head with both her small arms and put her lips against his face with purring noises.

"'See there,' said Dolly with a woman's tender tact, 'she's fondest o' you. She wants to go o' your lap, I 'll be bound. Go, then: take her, Master Marner; you can put the things on, and then you can say as you've done for her, from the first of her coming to you.'

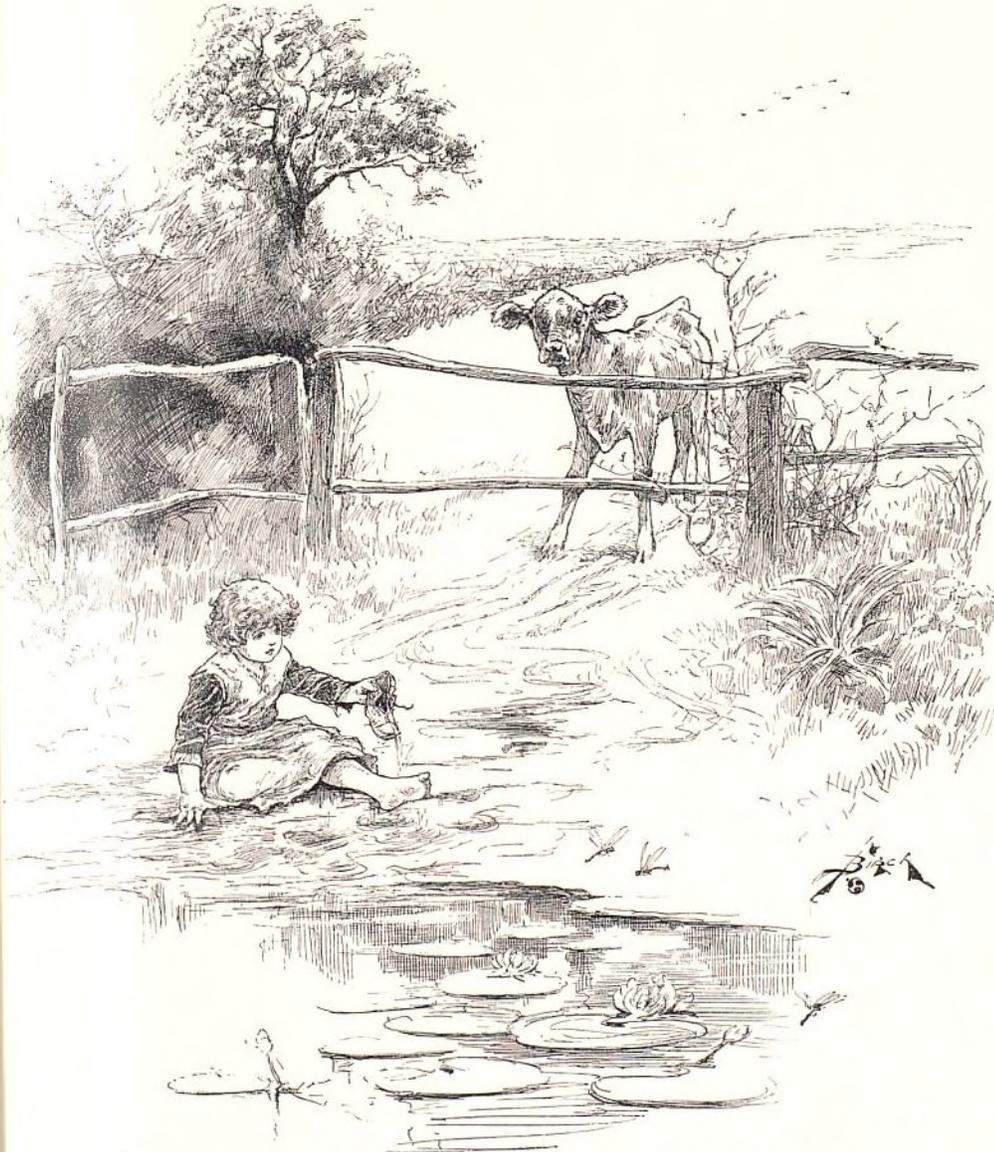
"Marner took her on his lap, trembling with an emotion mysterious to himself, at something unknown dawning on his life. Thought and feeling were so confused within him, that if he had tried to give them utterance he could only have said that the child was come instead of the gold — that the gold had turned into the child. He took the garments from Dolly, and put them on under her teaching, interrupted, of course, by Baby's gymnastics.

"'There, then! Why, you take to it quite

easy, Master Marner,' said Dolly; 'but what shall you do when you're forced to sit in your loom? For she'll get busier and mischievous every day—she will, bless her. It's lucky you've got that high hearth, i'stead of a grate, for that

at last — 'tie her with a good long strip o' something.'

"Well, mayhap, that'll do, as it's a little gell, for they're easier persuaded to sit i' one place nor the lads. I know what the lads are; for I've had



"HERE SAT EPIE, DISCOURSING CHEERFULLY TO HER OWN SMALL BOOT." (SEE PAGE 415.)

keeps the fire more out of her reach; but if you've got anything as can be split or broke, or as is fit to cut her fingers off, she'll be at it—and it is but right you should know.'

"Silas meditated a little while in some perplexity. 'I'll tie her to the leg o' the loom,' he said,

four,—four, I've had, God knows,—and if you was to take and tie 'm up, they'd make a fighting and a crying as if you was ringing the pigs. But I'll bring you my little chair and some bits o' red rag and things for her to play wi'; an' she'll sit and chatter to 'em as if they was alive. Eh, if it was n't

a sin to the lads to wish 'em made different, bless 'em, I should ha' been glad for one of 'em to be a little gell; and to think as I could ha' taught her to scour, and mend, and the knitting, and everything. But I can teach 'em this little un, Master Marner, when she gets old enough.'

"'But she'll be *my* little un,' said Marner, rather hastily. 'She'll be nobody else's.'

"'No, to be sure; you'll have a right to her, if you're a father to her and bring her up, according. But you must bring her up like christened folks's children, and take her to church and let her learn her catechise, as my little Aaron can say off—the "I believe," and everything, and "hurt nobody by word or deed"—as well as if he was the clerk.'

"Marner's pale face flushed suddenly, under a new anxiety." He had been accustomed to go to church, in his early life, before that bitter trouble had come upon him, but he had never been since. Now, however, he felt that it would not do for this little child to be kept apart from the things that were right for other children, and that this good Dolly Winthrop thought so important. So when Dolly and the clergyman told him that he ought to have the little creature christened, he agreed. "On this occasion, Silas, making himself as clean and tidy as he could, appeared for the first time within the church, and shared in the observances held sacred by his neighbors." He had chosen to give the child the name of "Hephzibah," because both his mother and little sister had borne that name, but as the little sister had been generally called "Eppie," it was decided that his adopted child who had brought her so vividly to memory should be called "Eppie," too. "As the weeks grew to months, the child created fresh and fresh links between his life and the lives from which he had hitherto shrunk continually into narrower isolation. Unlike the gold, which needed nothing and must be worshiped in close-locked solitude,—which was hidden away from the daylight, was deaf to the songs of birds, and started to no human tones,—Eppie was a creature of endless claims and ever-growing desires, seeking and loving sunshine and living sounds and living movements; making trial of everything, with trust in new joy, and stirring the human kindness in all eyes that looked on her. The gold had kept his thoughts in an ever-repeated circle leading to nothing beyond itself; but Eppie was an object compacted of changes and hopes that forced his thoughts onward."

"And when the sunshine grew strong and lasting, so that the buttercups were thick in the meadows, Silas might be seen, in the sunny midday or in the late afternoon when the shadows were lengthening under the hedge-rows, strolling out

with uncovered head to carry Eppie beyond the stone-pits to where the flowers grew, till they reached some favorite bank where he could sit down, while Eppie toddled to pluck the flowers and make remarks to the winged things that murmured happily above the bright petals, calling 'Dad-dad's' attention continually by bringing him the flowers." "As the child's mind was growing into knowledge, his mind was growing into memory; as her life unfolded, his soul, long stupefied in a cold, narrow prison, was unfolding, too, and trembling gradually into full consciousness." "By the time Eppie was three years old, she developed a fine capacity for mischief, and for devising ingenious ways of being troublesome, which found much exercise, not only for Silas's patience, but for his watchfulness and penetration. Sorely was poor Silas puzzled on such occasions, by the incompatible demands of love. Dolly Winthrop told him that punishment was good for Eppie, and that, as for rearing a child without making it tingle a little, in soft and safe places, now and then, it was not to be done.

"'To be sure there's another thing you might do, Master Marner,' added Dolly, meditatively: 'You might shut her up once i' the coal-hole. That was what I did wi' Aaron.' 'Not as I could find i' my heart to let him stay i' the coal-hole more nor a minute, but it was enough to colly him all over, so as he must be new washed and dressed, and it was as good as a rod to him—that was. But I put it upo' your conscience, Master Marner, as there's one of 'em you must choose—ayther smacking or the coal-hole—else she'll get so masterful, there'll be no holding her.'"

Silas "had wisely chosen a broad strip of linen as a means of fastening Eppie to his loom when he was busy: it made a broad belt round her waist, and was long enough to allow of her reaching the truckle-bed and sitting down on it, but not long enough for her to attempt any dangerous climbing."

One day, when Silas was not looking, Eppie got possession of the scissors and cut herself loose. "In two moments she had run out at the open door where the sunshine was inviting her, while poor Silas believed her to be a better child than usual." Terribly alarmed was Silas when he looked around and saw what had happened. He rushed out of the house, calling aloud for her, "exploring the dry cavities into which she might have fallen, and then gazing, with questioning dread, at the smooth, red surface of the water. The cold drops stood on his brow." "The meadow was searched in vain," and he turned "with dying hope toward a small pond which was now reduced to its summer shallowness, so as to leave a wide

margin of good adhesive mud. Here, however, sat Eppie, discoursing cheerfully to her own small boot, which she was using as a bucket to convey the water into a deep hoof-mark, while her little naked foot was planted comfortably on a cushion of olive-green mud. A red-headed calf was observing her with alarmed doubt through the opposite hedge."

"Silas, overcome with convulsive joy at finding his treasure again, could do nothing but snatch her up and cover her with half-sobbing kisses. It was not until he had carried her home, and had begun to think of the necessary washing, that he recollected the need that he should punish Eppie, and 'make her remember.' The idea that she might run away again and come to harm gave him unusual resolution, and, for the first time, he determined to try the coal-hole — a small closet near the hearth.

"'Naughty, naughty Eppie,' he suddenly began, holding her on his knee, and pointing to her muddy feet and clothes. 'Naughty to cut with the scissors and run away. Eppie must go into the coal-hole for being naughty. Daddy must put her in the coal-hole.'

"He half expected that this would be shock enough, and that Eppie would begin to cry. But instead of that she began to shake herself on his knee, as if the proposition opened a pleasing novelty. Seeing that he must proceed to extremities, he put her into the coal-hole, and held the door closed, with a trembling sense that he was using a strong measure. For a moment there was silence, but then came a little cry, 'Opy, opy!' and Silas let her out again, saying, 'Now, Eppie 'ull never be naughty again, else she must go in the coal-hole — a black, naughty place.'

"The weaving must stand still a long while this morning, for now Eppie must be washed, and have clean clothes on; but it was to be hoped that this punishment would have a lasting effect, and save time in future — though perhaps it would have been better if Eppie had cried more.

"In half an hour she was clean again, and Silas, having turned his back to see what he could do with the linen band, threw it down again, with the reflection that Eppie would be good without fastening for the rest of the morning. He turned round again, and was going to place her in her little chair near the loom, when she peeped out at him with black face and hands again, and said: 'Eppie in de coal-hole!'

"This total failure of the coal-hole discipline shook Silas's belief in the efficacy of punishment. 'She'd take it all for fun,' he observed to Dolly, 'if I did n't hurt her, and that I can't do, Mrs. Winthrop. If she makes me a bit o' trouble, I can bear it. And she's got no tricks but what she'll grow out of.'

"So Eppie was reared without punishment." "The stone hut was made a soft nest for her, lined with downy patience: and also in the world that lay beyond the stone hut she knew nothing of frowns and denials."

"In old days there were angels who came and took men by the hand and led them away from the city of destruction. We see no white-winged angels now. But yet men are led away from threatening destruction: a hand is put into theirs, which leads them forth gently toward a calm and bright land, so that they look no more backward; and the hand may be a little child's."



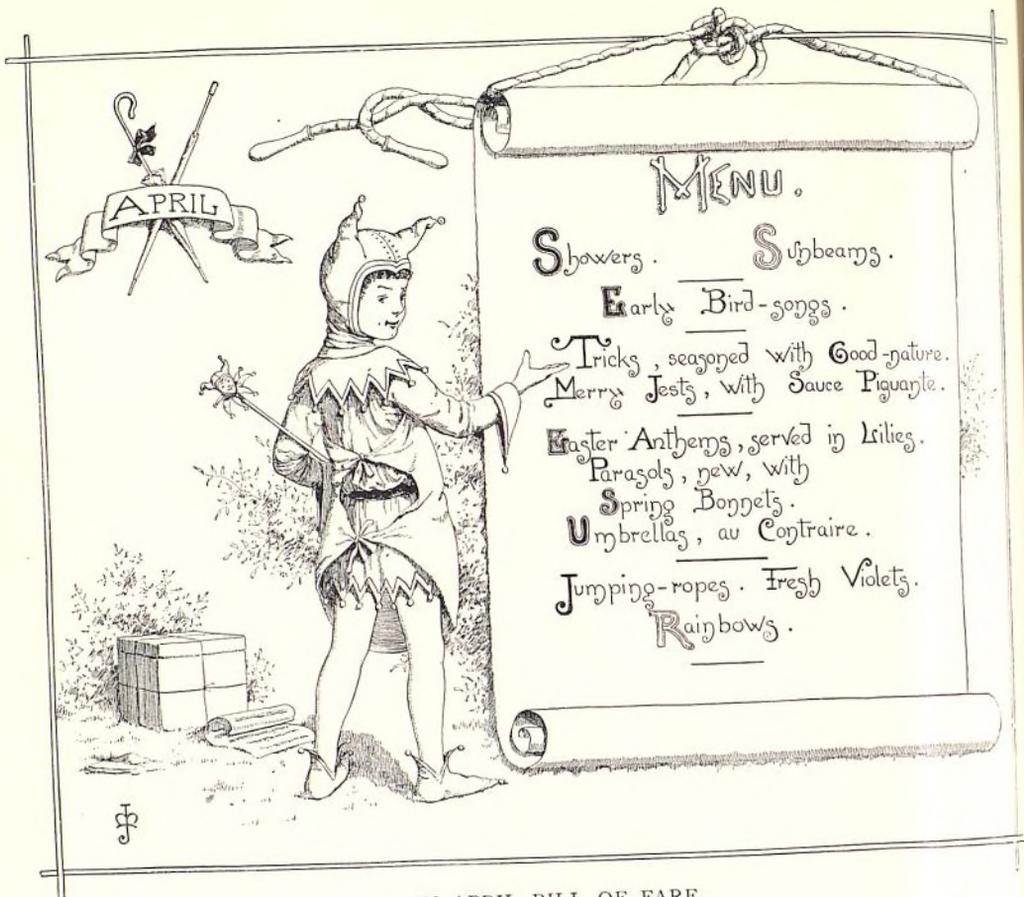


LIZBETH B. BRINS

Bloom! bloom! ye stately lilies,
Open your blossoms white!



Sing! sing! ye little children,
Sing ye in the morning light.

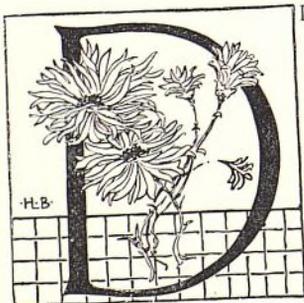


AN APRIL BILL OF FARE.

THE TABLES TURNED.

(A Wolf-Story Reversed.)

BY "GLAUCUS."



DID you ever hear of a sheep chasing a wolf? No, I don't mean a wolf chasing a sheep. Of course you have heard of that; but did you ever hear of a sheep which really and truly chased a wolf?

No, it is n't an allegory, nor a fairy story, and it has n't any special moral. The only moral is that it is true.

Well, I went one fall to stay with a friend in Canada. My friend had a farm called Swampscot, near Collingwood, a little town at the head of Lake Superior, the station whence the steamers start for their trip through the lake and to the far Northwest.

There was quite a number of wolves in that region when my friend first went there to live; but he had a number of dogs on the farm, and some of them were very fierce and strong; so, after a few years, during which the dogs and the wolves often met, the wolves found it was hardly worth their while to pay a visit to Mr. Noble — who was the owner of Swampscot Farm — because one of these

dogs would undoubtedly be disagreeable enough to bark at them, and then in a moment the whole pack would come tumbling out, and the boys would run helter-skelter to see the fun, and away would go Mr. Wolf, with such a shouting and hallooing and barking at his heels that he would think the end of the world was at hand. And very often indeed it *was*, so far as he was concerned, and he might consider himself lucky if he could reach the safe shelter of the big woods which came down to the edge of Mr. Noble's clearing. For more than once it happened that old Jowler came sauntering back to the house with a grim look, which said just as plainly as if he could talk, "There 's another of those rascals out of the way." And soon the boys would come running in, with the wolf's head to nail up on the barn-door; and that was the conclusion of his little visit to Swampscot.

So you see, it did n't pay the wolves to come and see us on ordinary occasions. Only when the little new-born lambs were out in the fields with their mothers, would a wolf now and then find an opportunity to snap up one of the babies and carry it off to his family in the forest.

Oh, you thought I was only in fun, did you, and that I meant to tell you about a wolf chasing a

Now, the year I was at Swampscot, it happened that Mr. Noble's little daughter Annie, a dear little girl with rosy cheeks and curly yellow locks,



"THE DOGS AND THE LAMB WERE ON EXCELLENT TERMS."

took a great fancy to have one of the lambs for a pet. So her father had one of the little, white, fluffy baby-lambs brought into the house, and Annie used to feed it and carry it about in her arms as if it were a little toy-animal.



AN UNWELCOME INTRUDER.

sheep, after all? Just wait a moment till I tell my story. So far I have written only what the story-book people call an introductory chapter.

However, the lamb soon grew too heavy to be carried around by so small a girl, and before summer had well begun it was trotting about

everywhere after Annie, like Mary's little lamb in that poem which some of you may have heard.

All the dogs were pets of Annie's, as indeed were all the animals in the farm-yard; and at first, when she took her baby-sheep out in the yard, the dogs did not know what to make of it. They wagged their tails and barked "how-do-you-do" to Annie's new friend; but the poor little lambkin did not understand the dog-language at all, and ran frightened to Annie, and hid its little head in her dress.

It was not long, however, before the dogs and the lamb were on excellent terms. They seemed all at once to become great friends, and when the lamb was almost a full-grown sheep it often forsook even Annie for the company of its new companions, and ran about everywhere with the dogs. Mr. Noble declared that he once heard the sheep trying to bark, but I am inclined to think he was making fun of us. I can't believe the lamb went so far as that, though no doubt it admired Rover's great loud "bow-wow!" and felt that its own little "ba-a-a!" was in comparison very mild.

The farmer often wished to take the sheep and kill it, now that it was too big for Annie to play with; but Mr. Noble declared that "Bob"—for so Annie had named it when it was a tiny baby—was one of the family, and that it should stay in the yard with the dogs as long as it chose.

One day I was in the snug library writing. It

wolves are often driven by hunger to attempt a raid on the farmers' poultry-yards. Suddenly I heard a great commotion outside, and Tom and Harold ran past the window, shouting, "Rover, Jowler,—here, dogs! Wolf! — a wolf!"

I was putting my papers together, and thinking whether I should venture out in the cold or whether I should leave them to catch the wolf by themselves, when Mr. Noble came in, saying, "Quick, Glaucus; quick! On with your coat! There is the funniest sight outside you ever saw."

Of course I jumped up, hurried into my coat and overshoes, and rushed out into the snow, wondering what new feature there could be in the not unusual visit of a wolf to the farm, and when outside I saw the boys and dogs were running across the open clearing in full chase after two large wolves. But, certainly, there *was* the strangest sight I ever saw in my life! There among the pack of dogs ran "Bob," scampering along with the best of them, and "ba-a-a-ing" with all its might at the astonished wolves.

I don't know what the sheep had planned to do if it caught them, but Bob's actions were so threatening that we wondered whether it would have eaten a wolf for supper if it had overtaken one. Unluckily for our sport, however, the wolves managed to escape for that time, and Master Bob came home with the baffled pursuers, looking as proud as though it had succeeded in securing some wolf for supper and had enjoyed the taste.



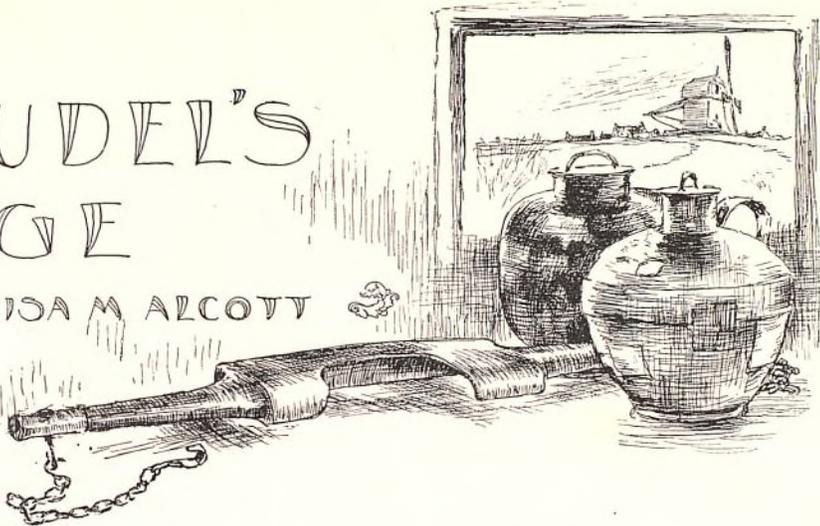
"THERE RAN 'BOB,' SCAMPERING ALONG WITH THE BEST OF THEM, AND 'BA-A-A-ING' WITH ALL ITS MIGHT AT THE ASTONISHED WOLVES."

was the beginning of the cold weather, and a few days before there had been a heavy fall of snow,—the first of the season,—just the time when the

I don't know what became of Bob afterward, but I am convinced that a sheep with ambition enough to chase a wolf may have aspired to anything.

TRUDEL'S SIEGE

BY LOUISA M. ALCOTT



"GRANDMOTHER, what is this curious picture about?" said little Gertrude, or "Trudel," as they called her, looking up from the red book that lay on her knee, one Sunday morning, when she and the grandmother sat sadly together in the neat kitchen; for the father was very ill, and the poor mother seldom left him.

The old woman put on her round spectacles, which made her look as wise as an owl, and turned to answer the child, who had been very quiet for a long time, looking at the strange pictures in the ancient book.

"Ah, my dear, that tells about a very famous and glorious thing that happened long ago at the siege of Leyden. You can read it for yourself some day."

"Please tell me, now. Why are the houses half under water, and ships sailing among them, and people leaning over the walls of the city; and why is that boy waving his hands on the tower, where the men are running away in a great smoke?" asked Trudel, too curious to wait till she could read the long, hard words on the yellow pages.

"Well, dear, this is the story, and you shall hear how brave were the men and women, and children too, in those days. The cruel Spaniards came and besieged the city for many months; but the faithful people would not give up, though

nearly starved to death. When all the bread and meat were gone and the gardens empty, they ate grass and herbs, and horses, and even dogs and cats, trying to hold out till help came to them."

"Did little girls really eat their pussies? Oh, I'd die before I would kill my dear Jan," cried Trudel, hugging the pretty kitten that purred in her lap.

"Yes, the children ate their pets; and so would you if it would save your father or mother from starving. *We* know what hunger is, but we won't eat Jan yet."

The old woman sighed as she glanced from the empty table to the hearth where no fire burned.

"*Did* help come in the ships?" asked the child, bending her face over the book to hide the tears that filled her eyes, for she was very hungry, and had had only a crust for breakfast.

"Our good Prince of Orange was trying to bring help, but the Spaniards were all around the city and he had not men enough to fight them by land, so he sent carrier-doves with letters to tell the people that he was going to cut through the great dykes that kept the sea out, and let the water flow over the country so as to drive the enemy from his camp, for the city stood upon high ground, and would be safe. Then the ships, with food, could sail over the drowned land and save the brave people."

"Oh, I'm glad! I'm glad! These are the bad Spaniards, running away, and these are poor people stretching out their hands for the bread. But what is the boy doing, in this funny tower where the wall has tumbled down?" cried Trudel, much excited.

"The smoke of burning houses rose between the city and the port so the people could not see

that the Spaniards had run away, and they were afraid the ships could not get by safely. But a boy who was scrambling about, as boys always are, wherever there is danger, fire, and fighting, saw the enemy go, and ran to the deserted tower to shout and beckon to the ships to come on at once,—for the wind had changed and soon the tide would flow back and leave them stranded.”

“Nice boy! I wish I had been there to see him and to help the poor people,” said Trudel, patting the funny little figure sticking out of the pepper-pot tower like a jack-in-the-box.

“If children keep their wits about them and are brave, they can always help in some way, my dear. We don't have such dreadful wars now, but the dear God knows we have troubles enough, and need all our courage and faith to be patient in times like these,” and the grandmother folded her thin hands with another sigh, as she thought of her poor son, dying for want of a few comforts after working long and faithfully for a hard master who never came to offer any help, although he was a very rich man.

“Did they eat the carrier-doves?” asked Trudel, still intent on the story.

“No, child; they fed and cared for them while they lived, and when dead, they were stuffed and set up in the Staat Haus, so grateful were these brave burghers for the good news the dear birds brought.”

“That is the best part of all. I like that story very much!” Then Trudel turned the pages to find another, little dreaming what a carrier-dove she herself was soon to become.

Poor Hans Dort and his family were nearly as distressed as the besieged people of Leyden; for poverty stood at the door, hunger and sickness were within, and no ship was anywhere seen coming to bring help. The father, who was a linen-weaver, could no longer work in the great factory; the mother, who was a lace-maker, had to leave her work to nurse him; and the old woman could earn only a trifle by her knitting, being slow and feeble. Little Trudel did what she could; sold the stockings to get bread and medicine, picked up wood for the fire, gathered herbs for the poor soup, and ran errands for the market-women who paid her with unsalable fruit, withered vegetables, or, now and then, a bit of meat.

But market-day came but once a week, and it was very hard to find food for the hungry mouths meantime. The Dorts were too proud to beg, so they suffered in silence, praying that help would come before it was too late to save the sick and the aged.

No other picture in the quaint book interested Trudel so much as that of the siege of Leyden;

and she went back to it, thinking over the story till hunger made her look about for something to eat as eagerly as the poor starving burghers.

“Here, child, is a good crust. It is too hard for me. I kept it for you; it's the last except that bit for your mother,” said the old woman, pulling a dry crust from her pocket, with a smile; for, though starving herself, the brave old soul thought only of her darling.

Trudel's little white teeth gnawed hungrily at the hard bread, and Jan ate the crumbs as if he, too, needed food. As she saw him purring about her feet, there came into the child's head a clever idea, born of the brave story and of the cares that made her old before her time.

“Poor Jan gets thinner and thinner every day. If we are to eat him we must do it soon, or he will not be worth cooking,” she said, with a strange look on the face that used to be so round and rosy, and now was so white, thin, and anxious.

“Bless the child! we won't eat the poor beast! —but it would be kind to give him away to some one who could feed him well. Go now, dear, and get a jug of fresh water. The father will need it, and so will you, for that crust is a dry dinner for my darling.”

As she spoke the old woman held the little girl close for a minute, and Trudel clung to her silently, finding the help she needed for her sacrifice in the love and the example Grandma gave her.

Then she ran away, with the brown jug in one hand, the pretty kitten on her arm, and courage in her little heart. It was a poor neighborhood where the weavers and lace-makers lived, but nearly every one had a good dinner on Sunday, and on her way to the fountain Trudel saw many well-spread tables, smelled the good soup in many kettles, and looked enviously at the plump children sitting quietly on the door-steps, in round caps and wooden shoes, waiting to be called in to eat of the big loaves, the brown sausages, and the cabbage-soup smoking on the hearth.

When she came to the baker's house her heart began to throb, and she hugged Jan so close that it was well he was thin, or he would have mewed under the farewell squeezes his little mistress gave him. With a timid hand Trudel knocked, and then went in to find Vrouw Hertz and her five boys and girls at table, with good roast meat, bread and cheese and beer before them.

“Oh, the dear cat! the pretty cat! Let me pat him! Hear him mew, and see his soft white coat,” cried the children, before Trudel could speak, for they admired the snow-white kitten very much, and had often begged for it.

Trudel had made up her mind to give them

her one treasure; but she wished to be paid for it, and was half ashamed to tell them her plan. Jan helped her; for, smelling the meat, he leaped from her arms to the table and began to gnaw a bone on Dirck's plate, which so amused the young people that they did not hear Trudel, with red cheeks and beseeching eyes, say to their mother in a low voice:

"Dear Vrouw Hertz, the father is very ill, the mother can not work at her lace in the dark room, and Grandma earns but little by knitting,—though I help all I can. We have no food; can you give me a loaf of bread in exchange for Jan? I have nothing else to sell, and the children want much to have him."

Trudel's eyes were full and her lips trembled as she ended with a look that went straight to stout Mother Hertz's kind heart, and told the whole, sad story.

"Bless the dear child! Indeed, yes; a loaf and welcome; and, see here, a good sausage also. Brenda, go fill the jug with milk. It is excellent for the sick man. As for the cat, let it stay awhile and get fat, then we will see. It is a pretty beast and worth many loaves of bread; so come again, Trudel, and do not suffer hunger while I have much bread."

As the kind woman spoke, she had bustled about, and before Trudel could get her breath, a big loaf, a long sausage, and a jug of fresh milk were in her apron and hands; and a motherly kiss made the gifts all the easier to take. Returning it heartily, and telling the children to be kind to Jan, she hastened home to burst into the quiet room, crying joyfully:

"See, Grandmother, here is food; all mine. I bought it! Come,—come and eat!"

"Thou dear Heaven, what do I see! Where did the blessed bread come from?" asked the old woman, hugging the big loaf, and eying the sausage with such hunger in her face that Trudel ran for the knife and cup, and held a draught of fresh milk to her grandmother's lips before she would answer a single question.

"Stay, child, let us give thanks before we eat; never was food more welcome or hearts more grateful"; and, folding her hands, the pious old woman blessed the meal that seemed to fall from heaven on that bare table. Then Trudel cut the crusty slice for herself, a large, soft one for Grandmother, with a good bit of sausage, and refilled the cup. Another portion and cup went upstairs to Mother, whom she found asleep, with the sick man's hand in hers. So, leaving the surprise for her waking, Trudel crept down to eat her own dinner, as hungry as a little wolf; amusing herself with making the old woman guess where and how she got this fine feast.

"This is our siege, Grandmother, and we are eating Jan," she said, at last, with the merriest laugh she had given for weeks.

"Eating Jan?" cried the old woman, staring at the sausage, as if for a moment she feared the kitten had been changed into that welcome shape by some miracle. Still laughing, Trudel told her story, and was well rewarded for her childish sacrifice by the look in Grandmother's face as the old woman said, with a tender kiss:

"Thou art a carrier-dove, my darling, coming home with good news and comfort under thy wing. God bless thee, my brave little heart, and grant that our siege be not a long one before help comes to us."

Such a happy feast!—and, for dessert, more kisses and praises for Trudel when the mother came down to hear the story and to tell how Father had eagerly taken the fresh milk and gone to sleep again. Trudel was very well pleased with her bargain; but at night she missed Jan's soft purr for her lullaby, and cried herself to sleep, grieving for her lost pet; being only a child, after all, though trying to be a brave little woman for the sake of those she loved.

The big loaf and sausage took them nicely through the next day, but by Tuesday only crusts remained; and sorrel soup, slightly flavored with the last scrap of sausage, was all they had to eat.

On Wednesday morning, Trudel plaited her long yellow braids with care, smoothed down her one blue skirt, and put on her little black silk cap, making ready for the day's work. She was weak and hungry, but showed a bright face as she took her old basket and said:

"Now I am off to market, Grandmother, to sell the hose and get medicine and milk for Father. I shall try to pick up something for dinner. The good neighbors often let me run errands for them, and give me a *kuchen*, a bit of cheese, or a taste of their nice coffee. I will bring you something, and will return as soon as I can."

The old woman nodded and smiled, as she scoured the empty kettle till it shone; and watched the little figure trudge away with the big, empty basket, and, she knew, with a still emptier little stomach. "Coffee!" sighed the grandmother, "one sip of the blessed drink would put life into me. When shall I ever taste it again?" and the poor soul sat down to her knitting with hands that trembled from weakness.

The Platz was a busy and a noisy scene when Trudel arrived, for the thrifty Dutch women were early afoot, and stalls, carts, baskets and cans were already arranged to make the most attractive display of fruit, vegetables, fish, cheese, butter, eggs,

milk, and poultry, and the small wares country people came to buy.

Nodding and smiling, Trudel made her way through the crowd to the booth where old Vrouw Schmidt bought and sold the blue woolen hose that adorned the stout legs of young and old.

old woman was about to eat after having made ready for the business of the day.

"See, then, I shall give thee the yarn and wait for the hose; I can trust thee, and shall ask a good price for the good work. Thou, too, wilt have the fever, I'm afraid! So pale and thin,



"GRANDMOTHER, WHAT IS THIS CURIOUS PICTURE ABOUT?"

"Good-morning, child! I am glad to see thee and the well-knit stockings, for I have orders for three pairs, and promised thy grandmother's work, which is always so excellent," said the rosy-faced woman as Trudel approached.

"I have but one pair. We had no money to buy more yarn. Father is so ill, mother can not work, and medicines cost a deal," said the child, with her large hungry eyes fixed on the breakfast the

poor child! Here, take a sup of the coffee, and a bite of bread and cheese. The morning air makes one hungry."

Trudel eagerly accepted the "sup" and the "bite," and felt new strength come into her as the warm draught and good brown bread went down her throat.

"So many thanks! I had no breakfast. I came to see if I could do any errands here to-day,

for I want to earn a bit, if I can," she said, and, with a sigh of satisfaction, Trudel slipped half the generous slice and a good bit of cheese into her basket, regretting that the coffee could not be shared also.

As if to answer her wish, a loud cry from fat Mother Kinkle, the fish-wife, rose at that moment, for a thieving cur had run off with a fish from the stall, while she was gossiping with a neighbor.

Down went Trudel's basket, and away went Trudel's wooden shoes clattering over the stones while she raced after the dog, dodging in and out among the stalls till she cornered the thief under Gretchen Horn's milk-cart; for at sight of the big dog who drew the four copper cans, the cur lost heart, dropped the fish, and ran away.

"Well done!" said buxom Gretchen, when Trudel caught up the rescued treasure, much the worse for the dog's teeth and the dust through which it had been dragged.

All the market-women laughed as the little girl came back proudly bearing the fish, for the race had amused them. But Mother Kinkle, sighing when she saw the damage done to her property, said:

"It is spoilt; no one will buy that torn, dirty thing. Throw it on the waste-pile, child; your trouble was in vain, though I thank you for it."

"Give it to me, please, if you don't want it. We can eat it, and would be glad of it at home," cried Trudel, hugging the slippery fish with joy, for she saw a dinner in it, and felt that her run was well paid.

"Take it, then, and be off; I see Vrouw Von Decken's cook coming, and you are in the way," answered the old woman, who was not a very amiable person, as every one knew.

"That's a fine reward to make a child for running the breath out of her body for you," said Dame Troost, the handsome farm-wife whose stall was close by, and who had listened, sitting proudly among her fruit and vegetables, as fresh as her cabbages, and as rosy as her cherries.

"Better it then, and give her a feast fit for a burgomaster. *You* can afford it," growled Mother Kinkle, turning her back on the other woman in a huff.

"That I will, for very shame at such meanness! Here, child, take these for thy fish-stew, and these for thy little self," said the kind soul, throwing half a dozen potatoes and onions into the basket, and handing Trudel a cabbage-leaf full of cherries.

A happy girl was our little house-wife on her way home, when the milk, and medicine, and loaf of bread were bought, and a comfortable dinner was quickly cooked, and gratefully eaten in Dort's poor house that day.

"Surely the saints must help you, child, and open people's hearts to our need; for you come back each day with food for us,—like the ravens to the prophet in the wilderness," said the grandmother when they sat at table.

"If they do, it is because you pray to them so heartily, Mother. But I think the sweet ways and thin face of my Trudel do much to win kindness, and the good God makes her our little house-mother—while I must sit idle," answered Vrouw Dort; and she filled the child's platter again that she, at least, might have enough.

"I like it!" cried Trudel, munching an onion with her bread while her eyes shone and a pretty color came into her cheeks. "I feel so old and brave now, so glad to help; and things happen, and I keep thinking what I will do next, to get food. It's like the birds out yonder in the hedge, trying to feed their little ones. I fly up and down, pick and scratch, get a bit here and a bit there, and then my dear *old* birds have food to eat."

It really was very much as Trudel said, for her small wits were getting very sharp with these new cares; she lay awake that night trying to plan how she should provide the next day's food for her family.

"Where now, thou dear little mother-bird?" asked the *Grossmutter* next morning, when the child had washed the last dish, and was setting away the remains of the loaf.

"To Gretti Jansen's to see if she wants me to water her linen, as I used to do for play. She is lame, and it tires her to go to the spring so often. She will like me to help her, I hope, and I shall ask her for some food to pay me. Oh, I am very bold now! Soon will I beg, if no other way offers." And Trudel shook her yellow head resolutely, and went to settle the stool at Grandmother's feet, and to draw the curtain so that it would shield the old eyes from the summer sun.

"Heaven grant it never comes to that! It would be very hard to bear, yet perhaps we must, if no help arrives. The doctor's bill, the rent, the good food thy father may soon need, will take far more than we can earn; and what will become of us, the good saints know!" answered the old woman, still knitting briskly in spite of her sad forebodings.

"I will do it *all!* I don't know how, but I shall try; and, as you often say, 'Have faith and hold up thy hands, God will fill them.'"

Then Trudel went away to her work, with a stout heart under her little blue bodice, and all that summer day she trudged to and fro along the webs of linen spread in the green meadow, watering them as fast as they dried; knitting busily under a tree during the intervals.

Old Gretti was glad to have her, and at noon called her in to share the milk-soup, with cherries and herrings in it, and a pot of coffee; as well as Dutch cheese, and bread full of coriander-seed. A feast, to Trudel, but one bowl of soup and a bit of bread was all she ate; then, with a face that was not half as "bold" as she tried to make it, she asked if she might run home and take the coffee to Grandmother, who longed for and needed it so much.

"Yes, indeed; there,—let me fill that pewter jug with a good hot mess for the old Vrouw, and take this also. I have little to give, but I remember how good she was to me in the winter, when my poor legs were so bad, and no one else thought of me," said grateful Gretti, mixing more coffee, and tucking a bit of fresh butter into half a loaf of bread, with a crusty end to cover the hole.

Away ran Trudel, and when Grandmother saw the "blessed coffee," as she called it, she could only sip and sigh for comfort and content; so glad was the poor old soul to taste her favorite drink again. The mother smelled it, and came down to take her share; while Trudel skipped away to go on watering the linen till sunset, with a happy heart, saying to herself, while she trotted and splashed:

"This day is well over, and I have kept my word. Now, what *can* I do to-morrow? Gretti does n't want me, there is no market, I must not beg yet, and I can not finish the hose so soon. I know! I'll get water-cresses, and sell them from door to door. They are fresh now, and people like them. Ah, thou dear duck, thank thee for reminding me of them," she cried, as she watched a mother-duck lead her brood along the brook's edge, picking and dabbling among the weeds to show them where to feed.

Early next morning, Trudel took her basket and went away to the meadows that lay just out of the town, where the rich folk had their summer-houses, and fish-ponds, and gardens. These gardens were now gay with tulips, the delight of Dutch people; for they know best how to cultivate them, and often make fortunes out of the splendid and costly flowers.

When Trudel had looked long and carefully for cresses, and found very few, she sat down to rest, weary and disappointed, on a green bank from which she could overlook a fine garden all ablaze with tulips. She admired them heartily, longed to have a bed of them, and eagerly feasted her eyes on the brilliant colors until her eyesight was dazzled; for the long beds of purple and yellow, red and white blossoms were splendid to see, and in the midst of all a mound of dragon-tulips rose, like a queen's throne; scarlet, green, and gold all

mingled on the ruffled leaves that waved in the wind.

Suddenly, it seemed as if one of the great flowers had blown over the wall and was hopping along the path in a very curious way. In a minute, however, she saw that it was a gay parrot that had escaped, and would have flown away if its clipped wings and a broken chain on one leg had not kept it down.

Trudel laughed to see the bird scuttle along, jabbering to itself, and looking very mischievous and naughty as it ran away. She was just thinking she ought to stop it, when the garden-gate opened and a pretty little boy came out, calling anxiously:

"Prince! Prince! Come back, you bad bird! I never will let you off your perch again, sly rascal!"

"I will get him," and Trudel ran down the bank after the runaway, for the lad was small and leaned upon a little crutch.

"Be careful! He will bite!" called the boy.

"I'm not afraid," answered Trudel, and she stepped on the chain, which brought the "Prince of Orange" to a very sudden and undignified halt. But when she tried to catch it up by the legs, the sharp, black beak gave a nip and held tightly to her arm. It hurt her much, but she did not let go, and carried her captive back to its master, who thanked her, and begged her to come in and chain up the bad bird—for he was evidently rather afraid of it.

Glad to see more of the splendid garden, Trudel did what he asked, and with a good deal of fluttering, scolding, and pecking the Prince was again settled on his perch.

"Your arm is bleeding! Let me tie it up for you; and here is my cake to pay you for helping me. Mamma would have been very angry if Prince had been lost," said the boy, and he wet his little handkerchief in a tank of water near by and tied up Trudel's arm.

The tank was surrounded by pots of tulips, and on a rustic seat lay the lad's hat and a delicious, large *kuchen*, all over comfits and sugar. The hungry girl accepted it gladly, but only nibbled at it, remembering those at home. The boy thought she did not like it; so, being a generous little fellow and very grateful for her help, he looked about for something else to give her. Seeing her eyes fixed admiringly on a pretty vessel that held a dragon-tulip just ready to bloom, he said, pleasantly:

"Would you like this also? All these are mine, and I can do as I like with them. Will you have it?"

"Oh, yes, with thanks! It is *so* beautiful! I

longed for one, but never thought to have it," cried Trudel, receiving the pot with delight.

Then she hastened toward home to show her prize, only stopping to sell her little bunches of cresses for a few *groschen*, with which she bought a loaf and three herrings to eat with it. The cake and the flower gave quite the air of a feast to the poor meal, but Trudel and the two women enjoyed it all, for the doctor said that the father was better, and now needed only good meat and wine to grow well and strong again.

How to get these costly things no one knew, but all trusted they would come, and fell to work with lighter hearts. The mother sat again at her lace-making, for now a ray of light could be allowed to fall on her pillow and bobbins by the window of the sick-room. The old woman's fingers flew as she knit at one long gray stocking, and Trudel's little hands tugged away at the other, while the child cheered her dull task by looking fondly at her dear tulip unfolding in the sun.

She began to knit next day as soon as the breakfast of dry bread and water was over, but she took her work to the door-step and thought busily as the needles clicked, for where *could* she get money enough for meat and wine? The pretty pot stood beside her, and the tulip showed its gay leaves now, just ready to bloom. She was very proud of it, and smiled and nodded gayly when a neighbor said, in passing, "A fine flower you have there."

Soon she forgot it, however, so hard was her little brain at work; and for a long time she sat with her eyes fixed on her busy hands, so intently that she neither heard steps approaching, nor saw a maid and a little girl looking over the low fence at her. Suddenly, some words in a strange language made her look up. The child was pointing at the tulip and talking fast in English to the maid, who shook her head and tried to lead her on.

She was a pretty little creature, all in white, with a gay hat, curly locks, and a great doll on one arm, while the other held a box of bonbons. Trudel smiled when she saw the doll, and, as if the friendly look decided her, the little girl ran up to the door, pointed to the flower, and asked a question in the queer tongue which Trudel could not understand. The maid followed, and said to Trudel, "Miss Maud wishes the flower. Will you give it to her, child?"

"Oh, no, no! I love it. I will keep it; for, now Jan is gone, it is all I have!" answered Trudel, taking the pot in her lap to guard her one treasure.

The child frowned, chattered eagerly, and offered the box of sweets, as if used to having her wishes gratified at once. But Trudel shook her

head, for much as she loved "sugar-drops," she loved the splendid flower better, like a true little Dutchwoman.

Then Miss Maud offered the doll, bent on having her own way. Trudel hesitated a moment, for the fine, lady doll in pink silk, with a feather in her hat, and tiny shoes on her feet, was very tempting to her childish soul. But she felt that so dainty a plaything was not for her; and her old wooden darling, with the staring eyes and broken nose, was dearer to her than the delicate stranger could ever be. So she smiled to soothe the disappointed child, but shook her head again.

At that, the English lassie lost her temper, stamped her foot, scolded, and began to cry, ordering the maid to take the flower and come away at once.

"She *will* have it, and she must not cry. Here, child, will you sell it for this?" said the maid, pulling a handful of *groschen* out of her deep pocket, sure that Trudel would yield now.

But the little house-mother's quick eye saw that the whole handful would not buy the meat and wine, much as it looked, and for the third time she shook her yellow head. There was a longing look in her face, however, and the shrewd maid saw it, guessed that money would win the day, and, diving again into her apron-pocket, brought out a silver *gulden* and held it up.

"For this, then, little miser? It is more than the silly flower is worth, but the young *fräulein* must have all she wants, so take it and let us be done with the crying."

A struggle went on in Trudel's mind, and for a moment she did not speak. She longed to keep her dear tulip,—her one joy,—and it seemed so hard to let it go before she had seen it blossom even once; but then the money would do much, and her loving little heart yearned to give poor Father all he needed. Just then her mother's voice came down from the open window, softly singing an old hymn to lull the sick man to sleep. That settled the matter for the dutiful daughter; tears rose to her eyes, and she found it very hard to say, with a farewell caress of the blue and yellow pot as she gave it up:

"You may have it, but it *is* worth more than a *gulden*, for it is a dragon-tulip, the finest we have. Could you give a little more? My father is very sick, and we are very poor."

The stout maid had a kind heart under her white muslin neck-kerchief, and while Miss Maud seized the flower, good Marta put another *gulden* into Trudel's hand before she hastened after her charge, who made off with the booty, as if fearing to lose it.

Trudel watched the child with the half-opened

tulip nodding over her shoulder as though it sadly said "good-bye" to its former mistress, till her dim eyes could see no longer. Then she covered her face with her apron and sobbed very quietly, lest Grandmother should hear and be troubled. But Trudel was a brave child, and soon the tears stopped, the blue eyes looked gladly at the money in her hand, and presently, when the fresh wind had cooled her cheeks, she went in to show her treasure and cheer up the anxious hearts with her good news.

She made light of the sale of her flower, and, still knitting, went briskly off to get the meat and wine for Father, and, if the money held out, some coffee for Grandmother, and some eggs and white rolls for Mother, who was weak and worn with her long nursing.

"Surely, the good God does help me," thought the pious little maid, while she trudged back with her parcels, quite cheery again, though no pretty kitten ran to meet her, and no gay tulip stood full-blown in the noonday sun.

Still more happy was she over her small sacrifices when she saw her father sip a little of the good broth Grandmother made with such care, and saw the color come into the pale cheeks of the dear mother after she had taken the eggs and fine bread, with a cup of coffee to strengthen and refresh her.

"We have enough for to-day, and for Father to-morrow; but on Sunday must we fast as well as pray, unless the hose be done and paid for in time," said the old woman next morning, surveying their small store of food with an anxious eye.

"I will work hard, and go to Vrouw Schmidt's the minute we are done. But now I must run and get wood, else the broth will not be ready," answered Trudel, clattering on her wooden shoes in a great hurry.

"If all else fails, I, too, shall make my sacrifice, my heart's darling. For I can not knit so fast as once I did, and if we are not done, or Vrouw Schmidt be away, I will sell my ring and so feed the flock till Monday," said the grandmother, lifting up one thin old hand, where shone the wedding-ring she had worn so many years.

"Ah no,—not that! It was so sad to have your gold beads go, and Mother's ear-rings, and Father's coat, and Jan, and my lovely flower! We will not sell the dear old ring. I will find a way. Something will happen, as before; so wait a little, and trust to me," cried Trudel, with her arms about the grandmother, and such a resolute nod that the rusty little black cap fell over her nose and extinguished her.

She laughed as she righted it, and went singing away, as if not a care laid heavy on her young

heart. But when she came to the long dyke which kept the waters of the lake from overflowing the fields below, she walked slowly to rest her tired legs, and to refresh her eyes with the blue sheet of water on one side, and the still bluer flax-fields on the other,—for they were in full bloom and the delicate flowers danced like fairies in the wind.

It was a lonely place, but Trudel liked it, and went on toward the wood, turning the heel of the stocking while she walked, with a pause now and then to look over at the sluice-gates which stood here and there ready to let off the water when autumn rains made the lake rise, or, in the spring, when the flax-fields were overflowed before the seed was sown. At the last of these she paused to gather a bunch of yellow stone-crop growing from a niche in the strong wall which, with earth and beams, made the dyke. As she stooped, the sound of voices in the sluice below came distinctly up to her. Few people came that way, except little girls, like herself, to gather fagots in the wood, or truant lads to fish in the pond. Thinking the hidden speakers must be some of these boys, she knelt down behind the shrubs that grew along the banks, and listened with a smile on her lips to hear what mischief the naughty fellows were planning. But the smile soon changed to a look of terror, and she crouched low behind the bushes to catch all that was said in the echoing hollow below.

"How did I think of the thing? Why, that is the best part of the joke! Herr Von Vost put it into my head, himself," said a man's gruff voice, in answer to some question. "This is the way it was: I sat at the window of the beer-house, and Von Vost met the Burgomaster close by, and said, 'My friend, I hear that the lower sluice-gate needs looking to. Please see to it speedily, for an overflow now would ruin my flax-fields, and cause many of my looms to stand still next winter.' 'So! It shall be looked to next week. Such a misfortune shall not befall you, my good neighbor,' said the Burgomaster, as they parted. 'Aha!' thinks I to myself, 'here we have a fine way to revenge ourselves on Master Von Vost, who turned us off and leaves us to starve. We have but to see that the old gate gives way *between* now and Monday, and that hard man will suffer in the only place where he can feel,—his pocket!'"

Here the gruff voice broke into a low laugh, and another voice said, slowly:

"A good plan; but is there no danger of being found out, Peit Stensen?"

"Not a chance of it! See here, Deitrich, a quiet stroke or two, at night when none can hear it, will break away these rotten boards and let the water in. The rest it will do itself; and, by morning, those great fields will be many feet under

water, and Von Vost's crop ruined. Yes, we will stop his looms for him, and other men beside you, and I, and Niklas Haas will stand idle with starving families round them. Come, will you lend a hand? Niklas is away looking for work, and Hans Dort is sick, or they might be glad to help us."

"Hans would never do it. He is sober, and so good a weaver he will never want work when he is well. I will be with you, Peit; but swear not to

There the voices stopped, and steps were heard going farther along the sluice-way. Trudel, pale with fear, rose to her feet, slipped off her sabots, and ran away along the dyke like a startled rabbit, never pausing until she was round the corner and safely out of sight. Then she took breath, and tried to think what to do first. It was of no use to go home and tell the story there. Father was too ill to hear it or to help, and if she told the



"TRUDEL, PALE WITH FEAR, ROSE TO HER FEET."

tell it, whatever happens, for you and I have bad names now, and it would go hard with us."

"I'll swear anything; but have no fear. We will not only be revenged on the master, but get the job of repairing; since men are scarce and the need will be great when the flood is discovered. See, then! how fine a plan it is, and meet me here at twelve to-night with a shovel and pick. Mine are already hidden in the wood, yonder. Now, come and see where we must strike, and then slip home the other way; we must not be seen here by any one."

neighbors, the secret would soon be known everywhere and might bring danger to them all. No; she must go at once to Herr Von Vost and tell him alone, begging him to let no one know what she had heard, but to prevent the mischief the men threatened, as if by accident. Then all would be safe, and the pretty flax-fields kept from drowning. Herr Van Vost was called the "Master" because he owned the linen factories, where all day many looms jangled, and many men and women worked busily to fill his warehouses and ships with piles of the fine white cloth, famous all the world

over. It was a long way to his house; but, forgetting the wood, Father's broth, Granny's coffee, and even the knitting which she still held, Trudel went as fast as she could toward the country house, where Herr Von Vost would probably be at his breakfast.

She was faint now with hunger and heat, for the day was hot, and the anxiety she felt made her heart flutter while she hurried along the dusty road till she came to the pretty house in its gay

poor, so unhappy now, we can not bear any more," and quite overcome with the troubles that filled her little heart, and the fatigue and the hunger that weakened her little body, Trudel dropped down at Von Vost's feet as if she were dead.

When she came to herself she was lying on a velvet sofa and the sweet-faced lady was holding wine to her lips, while Herr Von Vost marched up and down the room with a frown on his brow, and his flowered dressing-gown waving behind



“TRUDEL RAN SOFTLY UP THE STEPS, AND IN AT THE OPEN WINDOW.”

garden, where some children were playing. Anxious not to be seen, Trudel ran softly up the steps, and in at the open window of a room where she saw the master and his wife sitting at table. Both looked surprised to see a shabby, breathless little girl enter in that curious fashion, but something in her face told them that she came on an important errand, and putting down his cup, the gentleman said quickly:

“Well, girl, what is it?”

In a few words Trudel told her story, adding, with a beseeching gesture, “Dear sir, please do not tell that I told about bad Peit and Deitrich. They know father, and may do him some harm if they discover that I told you this. We are so

him. Trudel sat up and said she was quite well, but the white little face and the hungry eyes that wandered, to the breakfast-table, told the truth, and the good Vrouw had a plate of food and a cup of warm milk before her in a moment.

“Eat, my poor child, and rest a little, while the Master considers what is best to be done, and how to reward the brave little messenger who came so far to save his property,” said the motherly lady, fanning Trudel, who ate heartily, hardly knowing what she ate, except that it was very delicious after so much bread and water.

In a few moments Herr Von Vost paused before the sofa and said kindly, though his eyes were stern and his face looked severe:

"See, then, thus shall I arrange the affair, and all will be well. I myself will go to see the old gate as if made anxious by the burgomaster's delaying. I find it in a dangerous state, and at once set my men at work. The rascals are disappointed of both revenge and wages, and I can soon take care of them in other ways, for they are drunken fellows, and are easily clapped into prison and kept safely there till ready to work and to stop plotting mischief. No one shall know your part in it, my girl, but I do not forget it. Tell your father his loom waits for him. Meanwhile, here is something to help while he must be idle."

Trudel's plate nearly fell from her hands, for a great gold piece dropped into her lap, and she could only stammer her thanks with tears of joy, and a mouth full of bread and butter.

"He is a kind man, but a busy one, and people call him 'hard.' *You* will not find him so hereafter, for he never forgets a favor,—nor do I. Eat well, dear child, and wait till you are rested. I will get a basket of comforts for the sick man. Who else needs help at home?"

So kindly did Vrouw Von Vost look and speak that Trudel freely told all her sad tale, for the Master had gone at once to see to the dyke, after a nod and a pat on the child's head, which made

her quite sure that he was not as hard as people said.

When she had opened her heart to the friendly lady, Trudel was left to rest a few moments, and lay luxuriously on the yellow sofa staring at the handsome things about her, and eating pretzels till Vrouw Von Vost returned with the promised basket, out of which peeped the neck of a wine-bottle, the legs of a chicken, glimpses of grapes, and many neat parcels of good things.

"My servant goes to market and will carry this for you till you are near home. Go, little Trudel, and God bless you for saving us from a great misfortune," said the lady, and she kissed the happy child and led her to the back door, where stood the little cart containing many baskets to be filled in town, with a man to drive the fat horse.

Such a lovely drive our Trudel had that day. No queen in a splendid chariot ever felt prouder, for all her cares were gone, gold was in her pocket, food at her feet, and friends secured to make times easier for all. No need to tell how joyfully she was welcomed at home, nor what praises she received when her secret was confided to Mother and Grandmother; nor what a feast was spread in the Dorts' happy home; for patience, courage, and trust in God had won the battle, the enemy had fled, and Trudel's hard siege was over.



little Coffee-tot

There are grounds for believing that
this little tot
Has been at the coffee-mill when
she ought not.

EDWARD ATHOY.

BY ROY MCTAVISH.

PART II.

IN large coal mines, employing an army of men and boys, the great variety of labor compels the adoption of a most rigid system. Every one, man or boy, has his special kind of work to do, and a particular place and time in which to do it. The slightest infraction of this system soon makes itself evident in the irregularity of the output of coal. The person responsible for such delays or infractions is at once discharged. There is no confusion. Everything is as regular, both as to time and movement, as the hands of a clock.

A few minutes before half-past twelve o'clock the sound of a whistle gave warning that it was time to prepare for work. A crowd of men and boys, among whom was Teddy, stepped upon the carriage, a peculiar elevator, very strongly constructed, used to hoist coal from the mine. In English and Scotch pits it is called a "cage." *

The "surface-man" cried, "Slack off," and the carriage dropped quickly and silently into the shaft. It was a very deep shaft, indeed, one of the deepest in that region; a great, wide, roomy shaft containing two carriage-ways, a pump-way filled with pipes and pump-rods, and a steep line of steps called "ladders."

Teddy saw that the workmanship was of the best. He knew the colliery to be one of the largest and best-appointed in the vicinity, and felt a secret pride that he had been able so readily to secure work with a "big" company.

For a time the boys sought to play him tricks such as putting out his lamp,—thus compelling him to find his way back without a light,—or taking him to abandoned workings and leaving him to find his way out again. Teddy took all these jokes good-naturedly, laughing with the rest while telling in how short a time he managed to get out, or what fears he felt when a place looked uncanny, and did not scruple to add a little out of his imagination that his hearers might be better pleased.

His frank, manly ways won him friends on all sides. His strong shoulders were ever ready to help with an extra push, and in cases of "dumps" (cars off the track), his ready and ingenious expedients made him the leading spirit and director in the work of "putting on." Some of the older

drivers sought to bully the younger ones, and at such times those in the right ever found Teddy a champion of dauntless courage. He was a quiet, hard-working, careful lad, and soon won his way to be boss-driver in his heading.

This mine, while one of the largest, was also one of the most dangerous in the valley. In order to keep the workings supplied with pure air, in quantity sufficient to render harmless the explosive gases released by opening the coal-seams, an immense fan had been constructed which, during every minute that it was in action, drew forth from the mine over two hundred thousand cubic feet of impure air. Even with this great air-current, there were still very dangerous parts of the mine, requiring the utmost vigilance from the miners. To hear of some miner or laborer firing the gas in his chamber and being burned thereby, was a matter of almost weekly occurrence. In pits of this character, where there is a plentiful air-current, it is often a custom with miners to "fire" the gas in their working-places before a quantity sufficient to render its combustion dangerous accumulates. When this is done, the gas will take fire with a noise not unlike that made in lighting a common gas-jet. There is such an excess of air that the explosion of the gas is very weak and harmless. The flame, often three or four feet deep, will travel along the uneven roof, showing beautiful colors varying from a deep, dark blue to a brilliant crimson; and in it shine stars of dazzling white light, showing that fine particles of coal-dust suspended in the air are burning in the great heat of the gas. Sometimes this flame will travel close up against the roof, slowly to and fro, several times, until all the gas has been burned away.

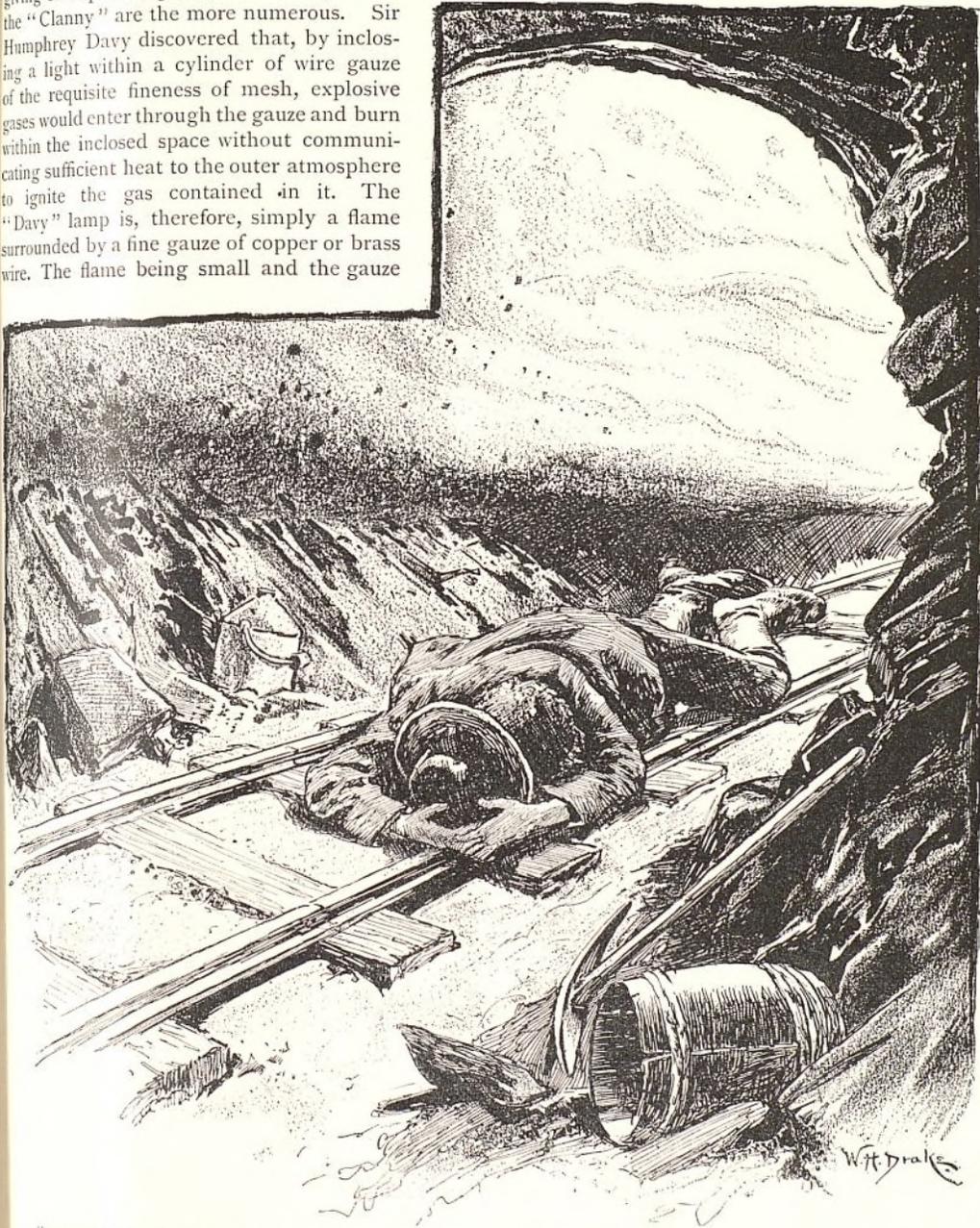
When the flame dies out, the burnt gases (the "black" or "after-damp"), being heavier than the air, fall to the floor. So the coal-miner is ever exposed to two great dangers: the first, that of being burned; the second, that of being suffocated after he has escaped the fire. Teddy's energy and intelligence soon won for him the entire confidence of the mine-boss, who placed him in charge of the most dangerous and "fire-y" heading in the whole mine.

Before entering this heading, every man was compelled to give up his "naked" lamp, and to receive a locked "Davy," or "Clanny," in its

* See "Letter-box," page 476.

stead. "Clanny" lamps were most used, because they give more light than the "Davy." Of the many forms of "safety lamp," so called, used in mines giving off explosive gases, the "Davy" and the "Clanny" are the more numerous. Sir Humphrey Davy discovered that, by inclosing a light within a cylinder of wire gauze of the requisite fineness of mesh, explosive gases would enter through the gauze and burn within the inclosed space without communicating sufficient heat to the outer atmosphere to ignite the gas contained in it. The "Davy" lamp is, therefore, simply a flame surrounded by a fine gauze of copper or brass wire. The flame being small and the gauze

is put on above the glass cylinder. When any lamp went out, the owner could not again light it, for it was "locked," and could not be opened with-



"COVERING HIS LAMP WITH A FLAP OF HIS COAT, THE BOY THREW HIMSELF FACE DOWNWARD BETWEEN THE RAILS, AND ALONG THE MUDDY FLOOR OF THE GANGWAY."

fine, but little light is given out to enable the miner to see. In the "Clanny" lamp the flame is surrounded by a thick cylinder of glass; and the wire gauze

out a key. In order to get a light, he must go back in the dark to the lamp-station. This precaution was necessary, for otherwise a workman

might set fire to the large quantity of gas in these workings, and not only lose his own life but might cause the death of all his companions.

Teddy had now been in the mine for more than a year, and his duties led him, in company with the "fire-boss," to traverse all parts of the workings every morning before any miner was allowed to work. If a chamber were so full of gas as to be dangerous, he barred the road with a board or a mine-rail, and chalked on the barrier, in large letters, "FIRE."

This was done to prevent the driver-boys from putting one of the empty cars into the chamber; as, under the rules, the driver must furnish a car to the miner's place each morning before the miner arrives, in order that there may be no working-time lost in waiting for cars.

One damp, sultry morning in August, the hard-worked mine-boss came up out of the mine, after enjoining unusual caution upon every workman. As each man had landed at the foot of the shaft he had found the boss waiting to speak a word of caution. The mine did not "draw well," as he termed it, because of the warm, sultry day, and the air-fan would be taxed to its utmost capacity to keep the inner workings free from danger. As he stepped from the carriage into the misty morning light, he stood for a moment doubting whether to return at once to the mine, or to go to the office and make out his morning report. The locomotive was waiting on the tracks below, and already the conductor was climbing the steep bank to the little office—just as Teddy had done more than a year before. The mine-boss went to the office, and, with the clerk, made out the report. He then seated himself at the table, and unrolled the colored tracing. Running his finger over a patch painted blue, he said:

"Shannahan's heading is making a great deal of gas this morning. If I find it has made any more within an hour, I shall order the men out."

"It did not seem over bad to me," said one of the "night-shift" men. "I worked in it all last night, and left it after the fire-boss came in this morning."

"That's all well enough," returned the boss, "but the coal is high,* and it is hard to dust out the gas from the catches in the roof. Besides, men will be careless and take risks rather than put themselves to a little extra work or bother."

"That's Athoy's lift, and he's a careful lad," broke in another.

"Yes," said the boss, "if it was anybody but Teddy, I'd have had 'em all out afore this. I'm uneasy about the place, and did not get much sleep, worrying over it, when I found 't was like

to be a muggy morning. It was all right there at three, and all right at half-past six,—and Teddy's a careful lad," he said, musingly.

"Ah, Sissy! You are a good lassie to bring me my breakfast just in time. I'll take this pasty, and be off." This was said to a tiny little girl carrying a dinner-pail and a tin bottle, her head covered by a large, blue-checked sun-bonnet, which was made by a stiff, starched ruffle to look even larger. She seemed a walking sun-bonnet, so little was the lassie, so big the bonnet.

The boss took the pasty in one hand, holding his lamp in the other, went toward the door, and was just stepping out, when he suddenly stopped, with his every sense strained to almost agonized attention. His color fled, his face paled, and his thin lips tightened until they appeared white against the teeth. Those in the room glanced at him, and then all stood riveted to the floor, motionless. A strange sort of noise could now be heard. The din of the breaker was easily distinguished, but there was lacking another sound, that of the fan; or, rather, there was a something peculiar in its movement—an indefinable difference in the vibrations its rapid motion imparted to the air.

"Quick! You, there!—it has come!" said the boss.

So, indeed, "it" had come! For with his last words there was a dull, booming sound, and a cloud of steam and splinters arose from the air-shaft. The hum of the fan still continued, but with a jerky, uneven cadence. There came another dull sound, followed by another expulsion of steam and broken wood-work from the air-shaft. Explosion followed explosion, wrecking the fan-house, leaving the great fan-wheel* hanging in its iron supports without a vestige of wood-work about it. Though continuing to run, it was now absolutely useless, because, being uninclosed, it could not pump any air.

The deep-toned fire-gong on the breaker sent forth its warning notes, and there soon gathered at the shaft-head a crowd of half-dressed miners and bareheaded women and children. Little was said. The mine-boss gave directions with a cool steadiness born of long experience and masterful habit. He at once directed immediate repairs to the fan-casing, and saw the necessary lumber and boards hauled to the place, under the direction of the "outside" boss.

Then, selecting from among the assembled miners a few tried men, he stepped upon the carriage and, with them, was soon carried to the bottom of the shaft. As they disappeared from sight, a woman set up a loud wail. No one can describe

* See note, in "Letter-box," p. 476.

this pitiful sound. It is the old Irish "keen," and chills one's very heart. It is not so much a definite cry of grief as the embodiment of direful terrors, yet unknown, into one terrible cry. It is horrible in its portentous significance.

When the mine-boss had met Teddy early that same August morning, Teddy was returning to the lamp-station, wearing a very troubled look.

"I don't like the draw of the air, this morning, Mr. McDonald. The fire gets pretty low down in some places. I have stopped the Gallaghers, Evan Williams, and Dick Richards. I went in with Jimmie Burns. His place is all right, so I put them in doubles, and they are now working four-handed."

"I'll go in with ye, lad," said the boss.

Returning along the gangway road,* stopping here and there to try the gas with their Davy-lamps,† they traversed a long plane where loaded cars, descending, pulled up the lighter, empty ones by means of a wire rope. At the head of this plane stood a man whose duty it was to regulate the speed of the cars by applying a brake-band* upon a big "drum," around which the rope was wound. Near this, stood a driver-boy who hauled the cars over the angle at the top of the plane. Two "Clanny" lamps were hung quite close to the ground, giving a dim light in which the eyes of men and mules gleamed like glowing fire-balls.

"The coal is coming slow, sir," said the man.

"All right," said the boss. "It's because some of the places have been stopped."

Passing on, they entered chamber after chamber, cautioning the men in each to use extreme care and to report at once any dangerous body of gas. They made the rounds of Shannahan's heading, testing every place and measuring the current passing into the air-way at the end of the gangway. There was current enough, but the air was light, causing the gas to show in the air-current much lower than usual. Everything was right in this, the worst part of the mine, and yet both men were ill at ease. There was an unusual stillness. The noise of dripping water seemed more distinct, even the faint hum of the colorless, red-eyed flies* became an annoyance, while the flames within the wire gauzes of the lamps burned with greater brilliancy, and at times a faint red-blue halo encircled their elongated points.

"The rats bes gone, sir. I have not seen one since I came in. And the mules bes awful still, so they be," said Teddy, half musingly, half inquiringly.

"It might be better. Do you think it *bad*, lad?"

* See note in "Letter-box," p. 476.

† When an explosive gas enters a Davy-lamp, it is merely consumed without exploding, but shows its presence by making the lamp burn more brightly and with a larger flame, having a luminous blue envelope or cap. It is the presence of this blue envelope that indicates danger.

"I've often seen it much worse and the gas much lower, sir; but whenever I feel like this I'm uneasy, sir. The Haggertys and them as was in the old East Tunnel was killed when I last had it, sir, and *then* it made me sick, so it did."

"Ye maun na feel tha' uncanny, lad; 't will na do ye any guid," replied the boss, who always broadened his speech when unusually impressed. "I maun report, ye ken. I'll be wi' ye again ere the hour goes." So saying, he left Teddy, to return to the surface for the purpose of making out his morning report.

They had returned to the lamp-station, so Teddy refilled his own "Davy" and took with him several newly filled, low-trimmed lamps to replace such as had gone out, among the workmen. Under his energetic care, trips of loaded cars were already gathering on the "branches" above the long plane. Fully an hour had passed and the mine was wakening from its strange sense of quiet. His old feeling of buoyancy had returned. He broke out into the air of "Kathleen Mavourneen," and as his boyish voice lingered over the lines:

"It may be for years,
And it may be forever—"

he dropped on one knee to examine more closely a defective latch-pin in a switch. The song died in his throat, as his look suddenly became fastened upon the tiny flame in his lamp. It gave a spasmodic jump, then quickly lengthened so as almost to reach the top of the gauze. Teddy sprang to his feet, holding the lamp thrust out at arms-length, his eyes intently watching the flame. For an instant only it settled back to its usual size; but in that instant there came a sound he knew but too well. He hastily thrust two lighted "Clannys" into the side-pockets of his canvas jacket, one upon each side.

Scarcely had he done so, when along the gangway came a blinding rush of air filled with dust and fine coal. Covering his lamp with a flap of his coat, the boy threw himself face downward between the rails and along the muddy floor of the gangway, pulling his soft oilskin hat well back over his neck and ears. As he straightened himself in the narrow channel, there surged over him a whirlwind of fire. Down it came to within a foot of the rails. The intense heat of the burning gas caused the fine coal-dust to glow as in a furnace. The heavy, damp air of the mine increased the power and heat of the explosion. As soon as it had passed, Teddy, scorched and bruised, leaped to his feet, and raced up the road to the plane. To think, with him, was to act. He must use all his speed

to reach the inner works, where the greater number of workmen in this part of the mine were stationed, before the gas had time to burn back on its return — which is always much slower than the first explosion.

When he reached the foot of the plane, his heart stood still. Broken and twisted, entangled in torn wire-rope, half buried in rent timbers and fallen coal, lay a trip of cars; mules, cars, driver-boy, and all, in a heap together. The whole "trip" had been blown to the bottom of the plane by the rush of air preceding the burning gas.

Teddy stooped over the lad — the poor little fellow was hardly more than a child. He was dead. Climbing over the broken cars, Teddy hastened up the plane, swinging the "Clannys" above the ever thickening layer of falling black-damp. He felt its heat with every in-drawn breath. His head ached almost beyond the power of endurance, and soon a tired, pained feeling seemed to seize upon his limbs, contending with his will for mastery. Still he struggled onward. Could he but reach the air-way masonry, there would be some hope of unlocking its narrow door and crawling through in time to be of service to the men in the dip-works. Many months before, when the miners in getting coal first reached the top of the hill, the gangway and its air-way were sufficient for letting in fresh air, and conducting out impure air and the large quantities of water exuding through the rocks. Now the roads and passages made a perfect network at the top of the hill, and these two ways were not sufficient to serve all purposes.

Other hills and valleys in the coal were found on the higher level of the first hill. In making new passages for air and water, the old air-way was separated from the plane roads by thick walls of cemented stone wherever an opening from one to the other occurred. In one of these masonry walls was placed a small but very strong door, the keys to which were given to bosses only. To go through this door was a "short cut" to a part of the new works on the hill, which had run into a sort of long incline or valley called a "dip." These works were called the "plane dip"; from them a narrow opening had been driven through coal and rock to connect with "old works" long since abandoned and walled up, and partially converted into a great underground drain. This channel was the old dip water-way, and Teddy's mind turned to this rock-walled ditch more than once, as he struggled forward.

Here and there along the road he stumbled over the fallen form of an unfortunate miner. The countenance of one of these men arrested his attention. It was the blackened face of Martin Gilfoyle. A short pipe, firmly held between his teeth,

and an unlocked lamp were eloquent, though silent witnesses to the cause of the disaster. Teddy glanced at him a second time, with a feeling of angry contempt. It was for *this*, that he had suffered all the agonies of superstition and the dread of coming danger; it was for *this*, that so many men had lost their lives, that so many widows and orphans were wailing at the pit's mouth — for he well knew what scenes were being enacted there; for *this*, — that Gilfoyle might have a smoke! It was so terrible in its consequences, yet so ridiculous in its foolhardiness, that the incongruous thought of losing his life for a pipe of tobacco flashed through the boy's mind, causing him to smile while tears of pain yet coursed over his scorched cheeks.

At last the air-way was won. He stopped for a moment in order to take one last, searching look up the gangway road, where, in the faint light of a "blower" (as burning jets of gas issuing from the coal are called), he saw the "nipper," or door-boy, Joe, leaning against the pillar. The little boy seemed dazed and uncertain in his movements, but made an effort to reach Teddy, stretching forth his arms as though groping in the dark.

Joey was a quiet little fellow, so delicate and frail that it seemed cruel that he should be compelled to pass his days amid the labors and dangers of the mines. Yet, with all the poverty and hard ways of his life, he was not quite alone, like Teddy. Living in a little house on the mountain, with his mother, the child's earnings constituted the sole source of income until Teddy came as a boarder. To protect him from the impositions of other boys, Teddy asked the mine-boss to give Joe a door in the plane works. A warm attachment soon grew between them. They were inseparable companions during the few hours of sunlight their labors allowed them. Many a long Sunday afternoon they rambled through spicy pine woods, gathering the snowy laurel-blossoms and delicate fern-fronds.

"Are you much hurt, Joey?"

"A little burned on the face and hands. The wind blowed me into the ditch, so I did not get much o' the fire. But I'm awful tired in the legs, Teddy."

"It is the black-damp, Joey. We must get out o' this, quick," said Teddy, turning to the stone wall before him. The strong oaken door, hardly two feet square, had been able to resist the force of the explosion. Fitting the key to the lock, he pushed open the door, and both crawled through. As he turned to close it, and to drop the heavy oak bar against it, he saw that Shannahan's heading was as bright as day. The gas was burning back again, and would so continue to burn until it had consumed all the air in the place. To his dismay, he found that no air was stirring in the

air-way, which was to him plain proof either that the fan had been injured, or that a heavy fall had cut off the air, and, at the same time, shut them in. Carrying his lamp low down to avoid the gas, which was rapidly accumulating overhead, he hurried forward till he reached the dip-works. Here he found some twenty men huddled in a circle about a lamp placed upon an empty powder-keg. As he strode into the circle, they made way for him as for a leader.

"There are two chances left," he said; "one through the air-way door to the plane,—if we can live through the damp,—the other through the old dip water-way, if we can live long enough there to work through."

"The lads on the plane-works—shall we leave them?" asked a miner.

"They are all dead on the road. 'T was Gilfoyle's pipe that lit it," responded Teddy.

The men knew without further question that Gilfoyle was the cause of their danger and distress, yet not one murmured a word of complaint. Following Teddy, they determined to abandon all hope of reaching the shaft-foot by way of the plane, and so plunged into the water-way and worked along until stopped by a thick wall, under which water flowed through an arched culvert, so made that the water was backed up against the masonry and formed a seal, or pool, rising above the top of the culvert-arch.

Two powerful Scotchmen went to work with their picks, turning out stone after stone from the face of the wall, until at last an opening was made. Through this they all passed into the narrow ditch, only to meet another dam, and after that still another. The impure air, the "white-damp," of these long-abandoned workings was doing its fatal work. White-damp differs from "black-damp" inasmuch as it will support combustion but not life. A very small proportion of carbonic oxide gas is, in coal mines, the fatal element.

The lamps burned like beacon stars in this terrible darkness, and by the light of their steady, motionless flames, one by one the little party were laying down their tools and, with them, their lives in that fatal ditch. Many a good man had given up his life before on that very spot. There was the long double row of props, now overgrown with heavy, white festoons of damp, clammy fungus. These old works had been walled up since that eventful day which Teddy remembered so well when the Haggertys were killed there. In pairs, the miners attacked the next wall. But every moment their blows grew fainter, and they took longer rests. There were few standing now to renew the work; the others were asleep on the wet, oozy, ragged rocks. Without a word, they looked

into each other's faces, then plied their picks. Suddenly they stopped. A faint clinking sound was heard. It became steady; a dull clinking sound in the pillar; where, they could not exactly tell, yet somewhere in front of them, either on the right or the left. They sprang to their picks with renewed energy. There was a rescuing party at work! Ah! There were now so few in need of rescue!

When the mine-boss reached the foot of the shaft, all was darkness there. The men, at the first sense of danger, had extinguished their lamps. Summoning aid from the hatless, coatless throng, he strode forward in advance of the party directly on the road to Shannahan's heading. Door after door was passed, the greater number proving the presence of mind of the door-boys, even in their danger and hurried flight; for, wherever there was a latch-door (some doors have a heavy wooden latch, while others are so hung as to swing shut), the latch was down; thus securing the door against opening unless opened by hand, and by this means maintaining wherever possible the flow of the air-current. As they passed onward, the signs of violence increased. In one place a great mass of coal had sprung from the pillar, and lay in huge blocks on the road. In another, a pair of "collars" had given way, leaving the roof hanging ready to fall. As they neared the lamp-station the wildest confusion prevailed. Doors and frames were blown from their fastenings; bent and broken cars were scattered over the road. In the dim, uncertain light of a few "blowers" burning high up near the roof, the confused mass at the foot of the plane could be distinguished.

The mine-boss knew that no man in the plane-workings could have had one chance in a hundred of escaping the effects of such an explosion.

It was of the most destructive type—an explosion in which the burning gas traverses place after place with the rapidity of a cannon-shot, and, when its first force is spent, slowly returns, and re-traces, and re-traverses the same ground, until it has burned itself out; leaving burning "blowers" streaming out here and there wherever enough air yet remains to support combustion.

But what of the dip-men? Could they have escaped?

They could not have made use of the air-way opening, on account of the gas on the plane; nor could they escape by the gangway, because that was choked full by the fall. There was but one course open to them, in the judgment of the mine-boss,—which was the course they had taken,—the waterway.

These thoughts chased each other through McDonald's mind as he threaded the old works to

the nearest point of attack on the masonry of the water-way. It was slow work at best. As fast as pick and drill could be driven, as quickly as dynamite could shatter, did wall and pillar fall before this rescuing party. At last, they, too, heard answering blows, the pick-strokes of the imprisoned men. The sounds became louder and louder, until at last they were working on opposite sides of the same pillar. A shattering shot so loosened the coal that a part of it was barred down, making a small opening. Crawling through, the rescuer saw two men, chest-deep in water, leaning against the stone-piled sides of the ditch, covering their faces with their hands and arms. Quickly, he thrust the nearer man into the opening, through which he was pulled by eager hands. Soon the other was also carried into pure air.

Near by the rescuers found Teddy, with little Joe lying across his knees. Both seemed as though asleep.

Carried to the surface, they were gently laid upon the floor of the engine-room, and over them bent the physicians, searching carefully for the least sign of life. After long and patient efforts,

a slight tremor of the dark-fringed eyelids showed that for Teddy there was hope. For little Joe, it proved to be the last deep sleep—the final rest.

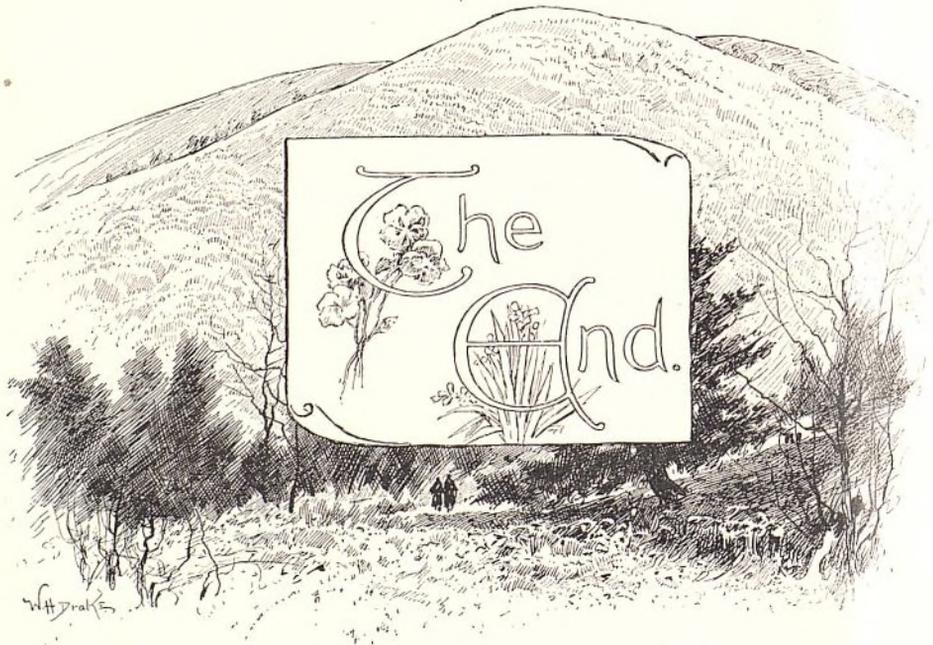
There were no more!

When the air-current could at last be directed through the workings, one by one the men were found. As they were brought out of the shaft and carried to the little office, there was father, mother, wife, or sweetheart to raise the cry of distress.

In a pretty spot, high up the mountain-side, overlooking a beautiful river, and the broad sweep of the spruce-clad West Mountain, there are many humble monuments erected to the memory of the dead. Under the gaunt arms of a Norway pine is a stone standing at the head of one lone mound, ever covered, in summer, with dark, purple pansies. Oftentimes come two toil-worn men, one of whom we should recognize as Teddy. They look down into the deep-hued, velvety flowers, then into each other's eyes, and say, softly: "A brave, bonnie laddie."

The lettering upon the stone is:

JOEY.





Prenez
garde,
Mlle, de
Ne pas
chanter
faux!



FROM MY WINDOW.

BY EMILIE POULSSON.

GRASSES creeping,
Flower-spangled ;
Rocks a-sleeping,
Vine-entangled ;
Brooklets purling,
Ferns uncurling,
Tree-tops sighing,
Breezes dying ;

Cloudlets shifting,
Insects humming,
Petals drifting,

Fragrance coming ;
Dews a-glitter,
Birds a-twitter ; —
Shine and azure
Without measure.

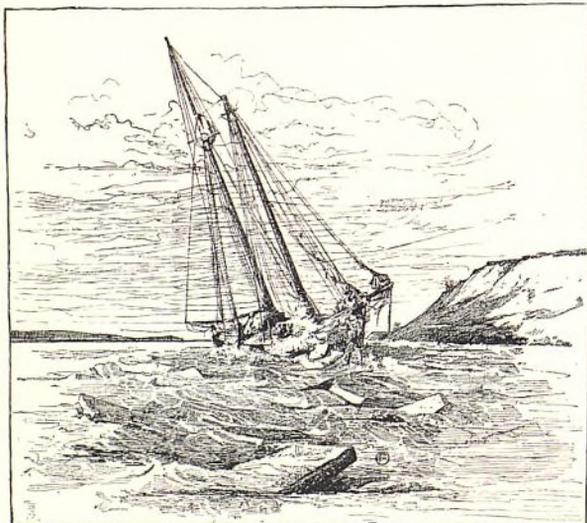
World, so gray and olden,
Thou art new and golden !
Of all bloom and bliss
For thine adorning,
Nothing dost thou miss
This spring-time morning !

THE WRECK OF THE "LIZZIE J. CLARK."

BY LOUIE LYNDON.

SMALL coasting schooners that bring lime, and lumber, and other light cargoes from the East, very often come to grief within sight of our lighthouse. The channels leading from the coasts and bay to the port beyond are narrow and dangerous; and in daylight, as well as at night, vessels run aground, strike on the rocks, or drag adrift from the anchoring-grounds. One of these little vessels struck on our island in a winter's gale, and, with her crew, claimed our interest for many days thereafter.

It was late in February, just as we were thinking the winter would slip by without locking us in with ice, when there came a cold storm that formed an ice-barrier round our island. The wharf became an inland structure, a palace of frosted pillars; and, beyond the ice-fields, the sea was dark and cruel, tossed into furious waves by the terrible north wind. The second night darkened without a sign of relenting, either in the wind or in the biting cold. After midnight, we were startled by hearing stamping, and knocking, and the tramp



of heavy, weary feet outside the door. Three poor sailors, exhausted and benumbed, staggered into the warm room. We thought at first that they were frost-bitten, and not for a long time were they

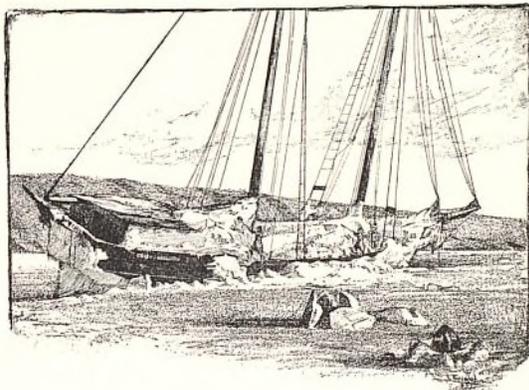
able to tell their story. We could not stop to question them, for there was need of all quick and practical measures which would secure their rest and comfort. The exposure and exertion of the past twenty-four hours began to tell upon them when relief and warmth had reached their chilled bodies; the drowsiness that comes of excessive fatigue fell upon them, and a sentence often would end in a nod. One of the sailors, the captain's son, was a mere boy—a poor, shy little fellow, half frozen and perishing, and almost dumb with terror. The captain's own story of his adventure will give the true tone better than my version at second-hand. He was led, during our acquaintance, to the recital of so many other adventures, that I could not doubt that this tale would take its place among the other "yarns." His calm pride in the many wrecks he had figured in was not unlike that of the Indian warrior when recounting the story of the scalps at his girdle. But under his careless tone there was an appreciation of the danger and hardships experienced,

which a sailor's pride forbade his bringing to the surface. He was just such a weather-beaten ship-captain as one would picture, with bushy eyebrows and a tawny, shaggy beard; his clothes covered all over with irregular patches of cloths of different colors. He wore heavy, stiff, rusty leather boots, blue woolen mittens, and, drawn over his ears, a long-caped sou'wester. We went together to look at the wreck, scrambling over ice-blocks on the uneven beaches, and at last we stood beside the old, battered boat, blown ashore from the schooner's davits before she struck. This was the captain's story:

"We was layin' to an anchor, jest off Spettical Island, marm, when we got adrift. We'd been as fur as the lower light, but we see bad weather ahead, and we come about and laid to an anchor. That was Thursday; and Friday night, it blowed a gale. We thought she'd drag, so we put out the other anchor. It come on cold, and colder; and that schooner, marm, she went head under every time. Wal, I never see it colder; water dead n't hev no run to it; when that salt water hit

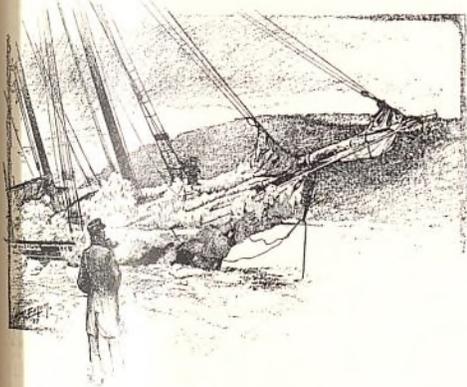
anything it froze right on where it was; it froze right in the air; and every time she went under, she fetched up a layer of ice. The water—it broke over beyond the mainmast and up ter the mast-head; and when she came up, instead of a-shakin' of it off, it was a-freezin' to everything. We kep' a-poundin' ice all day Saturday, but 't war n't no good; and, into the night, I war n't sorry when she sot adrift. If she had n't, I believe we 'd 'a' gone down jest whar we was; she could n't 'a' took on much more such cargo as that 'ere ice and kep' afloat. Wet? I was wet all the time, *inside* my clothes, and froze, *outside*, a-poundin' that ice and the water a-comin' over me every time she went head under. We was gettin' about tuckered out when I see her a-driftin', come midnight. Boat had blowed clean off the davits long before she struck, and we was put to it by how to get ashore. She laid easy, but we did n't dare stay aboard; and the cabin was full o' water, and the rigging all froze up so as we could n't git up it.

could loose the imprisoned ship. I went alone to her, one calm, cold morning, venturing to board her as she lay. The space between the beach



and the schooner was bridged by huge tables of ice, moving uneasily with a dull, grinding sound as the tide rose beneath them, showing channels of cold, dark sea-water between. I ventured upon one block, and when that closed up the space, I could jump to another; and, working my way cautiously, I reached the side of the schooner.

There I stood on a narrow block of ice around which the deep water threatened me. Chains and wire ropes at the bows were thickly heaped with ice, which the little vessel had gathered in her wild plunges at her anchorage. I could scarcely wedge myself between them. Clinging with feet and hands to the martingale, backstays and bobstays,



We guessed we was n't fur off shore, so we dropped over the side and got ashore through the ice when the tide fell off. We see the light-house, but 't was more 'n a mile away and we did n't know as we 'd live to git thar, we was so beat out a-workin' that ship, and 'most frozen; and 't was pitch-dark, and we did n't know the road, and gale was clean in our teeth, a-beatin' of us back every step of the way. Mighty lucky we was to git off so as we did, good many of 'em 's went down whar they laid to an anchor, and we 'd 'a' gone before mornin' ef we had n't broke adrift."

The morning after the wrecking of the schooner, the wind, lulling a little, gave the still cold a chance to weld the ice around the vessel, so that when I first saw her she lay quite near the beach, beyond which extended a smooth white plain of ice. Another day, and still another, added to the ice, before a change came; only the warm sun



and twining my arm round a small rope, which, with its ice covering, made an armful, I looked over the rail, and saw the ice-coated deck-load,

the spars, the deck-houses, and the canvas as firm as a board. It was hard to believe that this ice-clad ship had very recently been at sea, the only foot-hold of our sailors; it seemed, rather, to have been there accumulating ice all the winter. The night hours, when the men were tossing in this ship, helplessly drifting in the cold and darkness must have been horrible.

When the tide had fallen, the rugged ice-field was safe from the beach nearly to the edge of the ice,—far beyond the place where the vessel lay. The flukes of two anchors pierced the ice near the wreck,—the schooner still holding the anchors after they had refused to hold her.

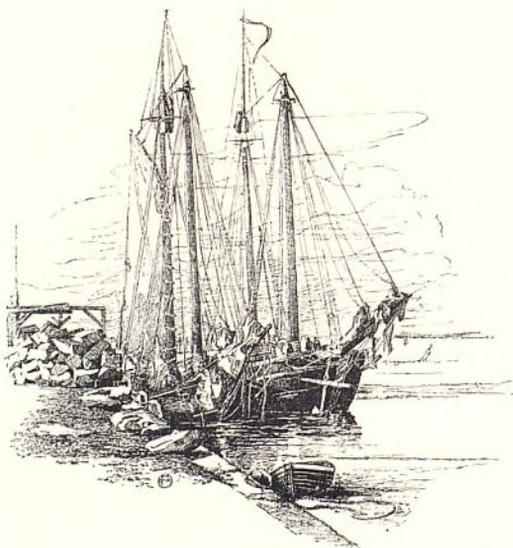
The hot sunshine pouring down in the still, warm days that followed, softened the sharp outline of the ice-masses; and the sailors worked busily, knocking off the icy armor from the deck and rigging. Once they rigged a line to help me to clamber on deck, from the water-side, but it was a slippery, exhausting journey. There was literally no foot-hold on the icy slope of the deck, and more than once I sank in a clumsy heap among the ice-bound hogsheads on deck, before I reached the door of the cabin. A cold, gloomy, watery cavern it seemed, though not long before the men had lived there cosily and in comfort.

Some of the island fishermen worked on the disabled ship, when it was found she could be saved, and a little hum and stir about the winter-stricken island gave it the look of having thawed out and become alive. The captain's story was

never threadbare, even after its many repetitions, for the islanders listened with the keen sympathy that comes of similar experiences. Our more firmly anchored island-ship,—the light-house,—had felt the power of storm and cold, and from our cabin-windows we had so often looked at the struggling vessel at anchor, that it grew into our closer sympathies.

At length the bonds weakened, the ice-field broke up, and the battered vessel was really afloat, at first hauled off by a tug; and once free, they gave the poor, tipsy thing a jib, and let her feel that one wing, after her long imprisonment, before they laid her beside the wharf. Another schooner lay beside her, to which her deck-load of oil and molasses was shifted. When at last the two schooners moved off, one on each side of the tug-boat, the relief schooner stood stanch and trim, while her weather-worn sister leaned heavily on the left arm of the tug. The little world that had touched our lonely one so nearly, floated quite away, the hum and stir were at an end, and we settled back into our usual, quiet lives. The fishermen, no doubt, would long remember the wreck with satisfaction, rejoicing over their spoils of damaged corn, flour, and sugar, bought for a song, from the schooner.

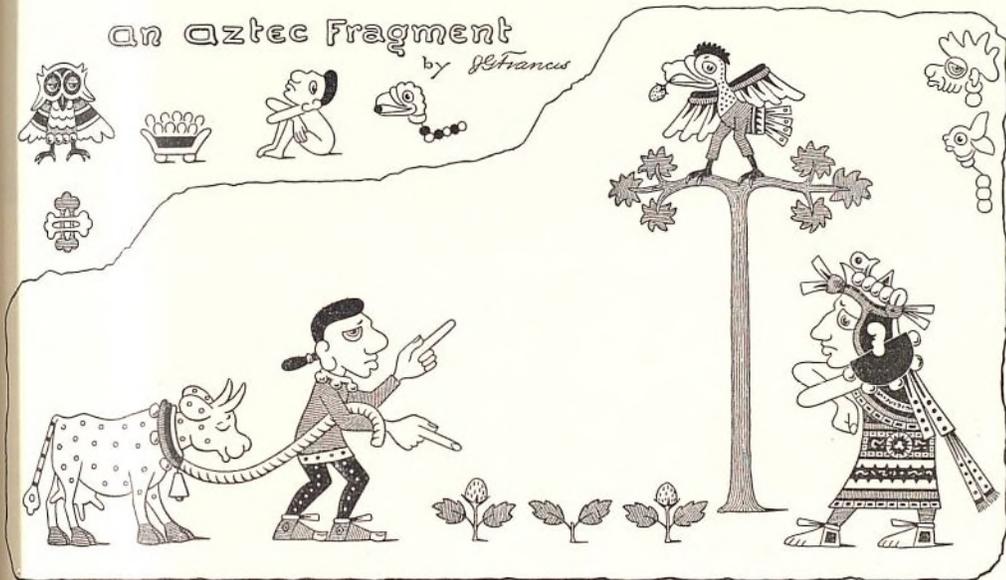
The magic March sunshine gradually changed our winter scene into summer-like, open blue sea; and then we remembered, with a shudder and shiver, the bleak, black night when the sailors drifted ashore.



an Amateur Agriculturalist

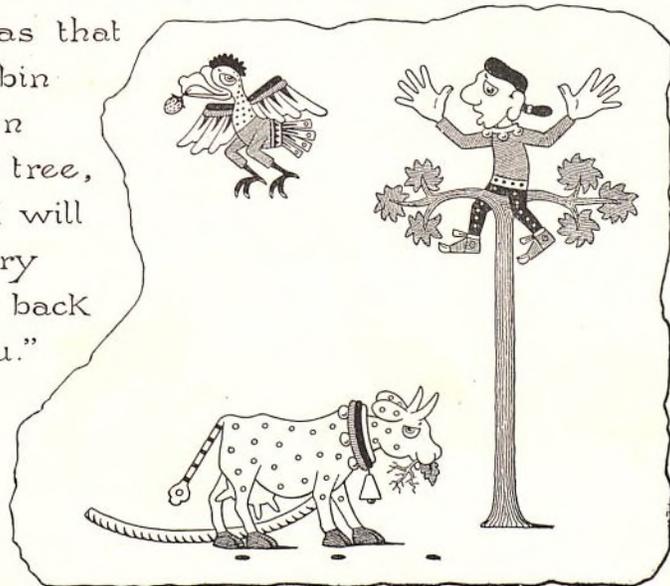
an aztec fragment

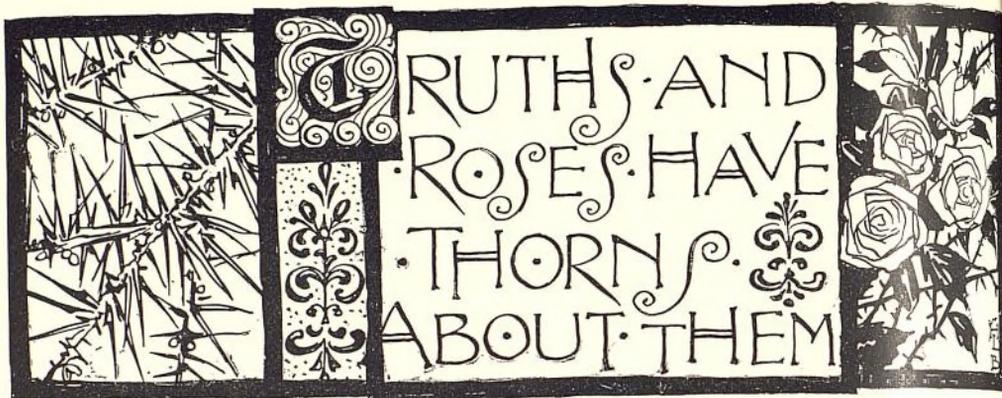
by J. Francis



Cried an Ornamental Farmer, "why have you
Stolen all my precious Strawberries but two?"
Replied his man, "accuse not me,

It was that
Robin
in
the tree,
But I will
try
to get the Berry back
for you."

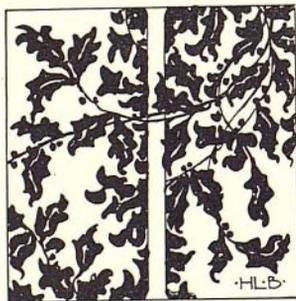




DRILL: A STORY OF SCHOOL-BOY LIFE.

BY JOHN PRESTON TRUE.

CHAPTER V.



It was on the black-board next to a demonstration of the fifteenth proposition of the third book of Geometry that Harry Wylie made the following note, on the Monday after his return from vacation, while the class were in

Dr. McCarty's recitation-room :

"Chorus of Second Class, on entering the Doctor's room :

"*Ave, Medice ! nos morituri te salutamus !*" *

And few of the boys there present soon forgot the hearty burst of laughter with which the short and excitable Doctor greeted this audacious expression of discontent at having to flounder through the detested "Chauvenet."

The Doctor was a stout, little man, with curly hair and a handsome face.

Later in the day, Harry, with much satisfaction, for the first time buckled on his sword and stepped

out in front of the Company while his acting-commission was read to the command. It seemed odd to glance down the line and, instead of seeing the sunlight glinting from a row of polished barrels, to see only the white radiance of northern pine. He was not at all sure that he liked the change, after all; in fact he felt somewhat as though he, by some magic incantation, had invoked a genie which it was beyond his power to send below again, and concluded that Dane was right in cautioning him against betraying his share in the equipment of the "Wild Lake Witches."

But the drill went on as usual, except that the manual of arms was somewhat abridged by omitting what was unsuitable to the new weapons; and by a few well-timed words in an undertone, now and then, relative to the difference between carrying ounces and carrying pounds for two hours daily, he soon managed to instill a degree of contentment in the boys under his command which, for the time being, quite resigned them to the change, justifying the General's foresight in selecting Wylie to take charge of the most refractory company. Indeed, when the insubordinate students were released from arrest and rejoined the Company, they were astonished at the lack of sympathy which was exhibited by their brothers-in-arms

* "Hail, Doctor! We, who are about to die, salute thee!" A parody upon the salutation of the Roman Gladiators — "*Ave, Caesar,*" etc. — when they entered the arena.

They had been under the impression that they were regarded as martyrs; and to be informed that they had "only made dunces of themselves!" was not a little exasperating. Harry himself was surprised to find that he possessed so much influence; but his comments had been made in a matter-of-fact, common-sense way, and from a point of view so devoid of sentiment, as to take the wind out of the sails of the more eloquent orators during a time when they were unable to say anything to counteract his influence; and the hours of drill gave the boys time to think the matter over in this new light, and undisturbed.

Dane was in his company also, and seconded his friend's efforts to the best of his ability. When the next drill was over, however, and the half-hour for recreation came, the malcontents began to make trouble for Harry, in whom they saw personified the spirit of law and order, since he was reigning in place of their fallen leader. One of them, the son of a mill-owner, Mitchell by name, did not hesitate to accuse him of time-serving.

"It's all very well for you to talk, now that you are made second 'luff' by it, Harry Wylie," he retorted, in reply to some remark. "You stepped into the place of a better fellow than you ever were, or will be, by joining in with the strong side, instead of being brave enough to stand up against it. We should have our muskets back by now if you and the ones like you had had the spirit of one man among you all!"

Harry endeavored to keep his temper as he remarked, with no evidence of irritation:

"I think that the 'powers that be' did just right about the muskets, Mitchell. I said so before they made the change, and I think so now."

"You are a coward!" And Mitchell laughed contemptuously as he offered this, the deepest of insults to a boy; and an expectant silence fell upon the throng, while the students drew closer around them.

Harry's eyes blazed, and his fingers twitched nervously. He longed — oh, how he longed! — to take that fellow by the throat and give one squeeze. *Only one!* It would not be necessary to give two. And it would teach him a lesson that he would not soon forget!

But there came into his mind an admonition of old "Tom," his brother: "Never mind what the fellows say; don't begin a fight either by muscle or by word. If your opponent is insulting, just remember that you are a gentleman, not a dentist, and don't extract his teeth for it"; and the thought made him smile even now, when he was least in smiling mood.

"You can say that, if you choose, Mitchell," he said, when he was sure of himself. "I shall not

contradict you. But you will have to bring up better proof than any you now have if you expect to make the men of this Company believe any such statement."

"Well, then, perhaps they will believe this!" And stepping suddenly nearer, with a quick movement he attempted to slap Harry's face; but Wylie was too quick for him, and catching the coming arm with a quick grasp of his left hand, he pushed him back to his former place, saying in an authoritative tone:

"Don't be a fool, Mitchell, — unless you are anxious to return to the guard-house!" This action caused a decided sensation in the group around them. The spot where they were was sheltered against observation from the Institute, being in the lee of a high bluff on the margin of the lake.

But Mitchell was determined to fight. He was something of a bully; and, as the second lieutenant was slighter in build than he, it seemed a safe thing to attack him; and a black eye would be likely to put an end to the new commission. Accordingly, the moment that the grasp upon his arm relaxed, he sprang forward again, and delivered a straight right-hand blow with a vim that might have injured Harry's face considerably — if he had been there at the instant! As it was, the fist simply made a hole in the air; the owner of it was nearly overbalanced, and, before any one knew exactly how it was done, Mitchell found himself flat upon his face, the boys around shouting with laughter, while the second lieutenant was coolly tying his hands behind him with a bit of fishing-line.

"There, Mitchell!" said Harry, rising, when he had finished his work in spite of the struggles of his captive; "if you had struck at any other boy in school I should walk you straight to the principal. As it is, since you might think that it was done from personal feeling, I shall not take any action at present. But I want you distinctly to understand that I shall not fight you, either now or at any time. If I catch you bullying I shall put you under arrest, but I shall not give you a thrashing. There is law enough to deal with you without my taking it into my own hands."

"I know that you do not think as I do," he added, turning to the others, "and you have a right to your own opinions. But you must concede me the same right; and if you see fit to call me a coward because I follow my own ideas — I'm sorry, but I shall go ahead just the same."

"Humph! I'll tell you what it is, Wylie," said Rankin, the ex-lieutenant. "It took more pluck to say that before this crowd than any fellow here has, — myself included. We may not think alike;

but go ahead, and I, for one, shall not call you a coward, and there 's my hand on it," and he held out his hand as he spoke.

Mitchell, struggling to get upon his feet, looked utterly dismayed at finding himself so entirely unsupported. He had thought that Rankin, at least, would back him up in his quarrel, whereas the ex-lieutenant was the first to go over to the enemy; then, too, he was cowed by the threat of taking him before the principal,—a threat which, however contrary it might be to the canons of school-boy honor, he knew Wylie was fully capable of carrying out, if he thought it right. Consequently he muttered something to the effect that he was only in fun; and then, in a subdued manner, asked that his hands might be untied. Harry looked at the would-be pugilist for a moment, and, seeing that all the "fight" had completely oozed out of him, took his knife and cut the string, without a word, and a few minutes afterward Mitchell slipped away.

"I don't exactly believe in that, Wylie!" said one of the other boys, speaking for the first time. "What's the good of bringing such things before the principal? You could have thrashed Mitchell easily, as I happen to know, and I don't see why you didn't do it. If a fellow can't take care of himself, let him go to law; but so long as he can, why not do it?"

"That is to say, Young, if some one takes a shot at you from behind a fence, and you know who he is, instead of having him arrested and retired from active life for a while, you would load your blunderbuss and shoot him on sight," said Harry, with a laugh, in which the others joined. "This is n't Africa, you know!" and Harry began to try the strength of the ice in the cove, to ascertain when skating was probable, for this was the errand which had brought them to the shore.

Two nights after this, something happened of which the reader shall be told later on and which forever settled any question there might have been in the minds of the boys as to whether Lieutenant Harry Wylie was a coward or not.

CHAPTER VI.

THE little Englishman arrived. Then the four-horse team from the factory came, heavily laden with another lot of the principal's pikes, save that whereas the first were of pine, and cut square at one end, the new ones were of hickory and oak, and the ends were nicely rounded off alike. The old pikes were quickly piled upon the wagon, and were carted away to do duty, according to their original destiny, as broom-handles.

A number of men were soon set to work within

the drill-hall, although what they were doing was a puzzle to themselves as well as to the on-lookers. They had received their orders to do certain things without being informed of the purpose of their work, and knew no more than the boys what that might be; but every one agreed that "there was something up."

Then all the officers, from the major down to the corporals, were ordered to report at the drill-hall, while the rest of the students were excused for that day from attendance there; and many were the conjectures as to what this might portend.

"It's some new manual that they are learning," suggested Nat Young, with some degree of sagacity. And gradually the rest came to the same conclusion.

When the officers returned they looked flushed, as though they had been exerting themselves, and there were certain signs of weariness, a brightness of the eyes, and much suppressed laughter, all of which was highly exasperating to the rank-and-file, being evidence that, whatever the officers had been about, it was something pleasant to look back upon; but oysters could n't be closer-mouthed than those same officers on occasion.

So there was nothing to do but to await developments.

When the next hour for drill arrived, and the companies stood at "attention," resting on their polished pikes, they found themselves arranged in a hollow square; and the officers withdrew to an adjacent room. In about five minutes they all returned; but their own mothers would not have known them, for every man of them wore a big leather helmet, well padded, a fencing-mask across the face, and heavy rolls of leather upon each shoulder.

"Why, it's not broadsword-drill, is it?" asked Nat Young of his neighbor.

Evidently it was not broadsword-drill, for the line-officers had laid aside their swords, and carried pikes instead. Marching into the square, they formed in lines at a considerable distance apart, while the little Englishman, whose name was Percival, took his stand upon the high platform from which he could superintend them.

Then began what was to the excited boys one of the strangest exercises that they had ever seen. Each officer held his pike over his head at arm's length for a moment, motionless, with one hand holding one end, and the other lightly grasping the pike at about the third quarter of its length. Then at the word, and with a rush, each staff was whirled in the air, and then it struck against another with a rattle like that made by a stick drawn along the palings of a fence. Right, left, fell the blows; parried dexterously by the practiced fencers, whose

experience in the sword-drill now came in play most handily; and now and then a thump told of some unforeseen blow. Round and round in circles edged the fencers, with a thrust here and a blow there, as judgment directed,—springing backward, leaping forward, and parrying as heedfully as though they were in mortal fray, until the boys in line, losing all consciousness of discipline, cheered till the echoes rang through the far-off corridors, and the stout walls of the building seemed to tremble.

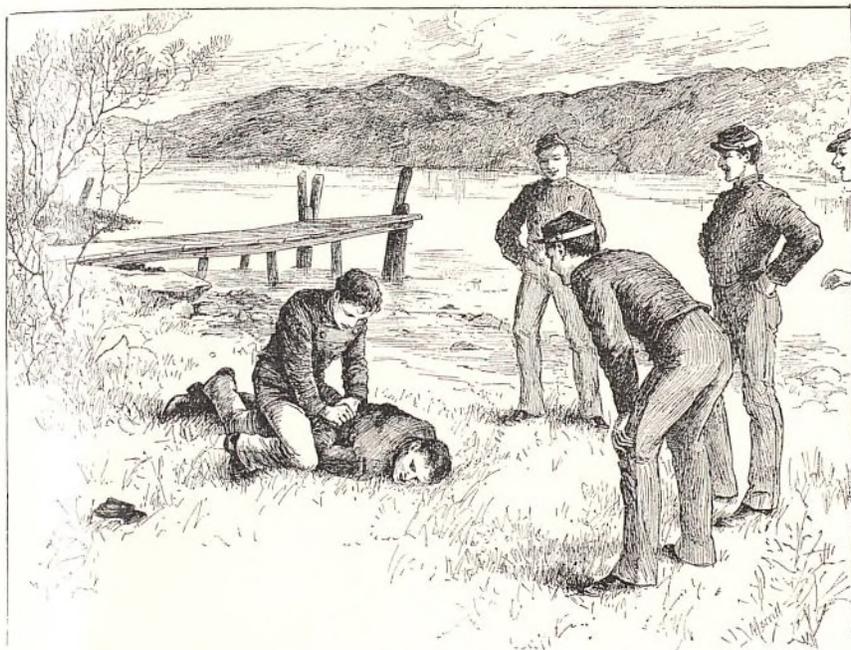
For nearly twenty minutes the drill continued. As fast as a fencer received a hit he fell out of line, and his antagonist turned to some other whose ad-

though they had not been racking their brains for the last hour.

"I thought so. Well, what you have just witnessed is a fair example of quarter-staff play, such as your Saxon ancestors were so well versed in, and about which most of you have read in 'Ivanhoe,' I have no doubt. In this drill I expect you all to perfect yourselves, and Mr. Percival is here to superintend your instruction."

For a moment there was such a sensation in the ranks that it was quite useless for the principal to continue. Decidedly, there was fun ahead.

"Your officers have received a careful training



"THE SECOND LIEUTENANT WAS COOLLY TYING MITCHELL'S HANDS BEHIND HIM."

versary had been similarly overcome. One by one they fell away until at last but two were left, most equally matched but unknown alike to the rest and to one another, since even their hands were concealed by the thick gloves. Minute after minute passed in rapid thrust and parry; but wherever the pike fell it found the other ready to receive it, while the boys clapped their hands and cheered and cheered again.

At last the principal stepped forward, saying:

"That will do, boys; you have done well," and the fencers ceased and withdrew to the sides of the square.

"I suppose you would be glad of an explanation," the principal continued with a smile, addressing the battalion; and a general laugh followed his remark. "Would be glad—!" As

in swordsmanship, and, as you have seen, found little difficulty in mastering the new weapon. For you, it will be somewhat harder, and I must caution you against too vigorous exertions at first. But I anticipate no great loss of time in acquiring the necessary skill; and Company A will at once retire to the store-room, where they will find a helmet and shoulder-straps for each member. The rest must be content to use their eyes and ears in gathering knowledge until their turn shall come."

"What did I tell you, fellows!" said Sergeant Dane to the boys nearest him, rubbing his arm, which ached a little from the unusual exertion to which it had been subjected. "I said 'Dicky' knew what he was about when he brought down the broomsticks. Who says 'Witches' now?"

"We 'll see fun, though, at all-events; and I 'm glad the old irons are gone, after all," answered Mitchell, who happened to be nearest, his eyes sparkling with anticipation. "You can fence, though, like a house a-fire, Sergeant — Dane, is n't it?" looking at the helmeted head, which presented no outward symbol of individuality, but which he knew to belong to one of the two fencers who were the last to yield.

"I suppose that you will forgive Wylie, now, won't you, Mitchell?" he said, good-naturedly enough.

"No, I won't!" was the surly answer. "I only hope that they 'll set him to teaching me to handle a staff; he 'll find I can teach him to dance at the same time!"

Dane laughed silently to himself at the absurd boast.

"You remember the fellow with whom I was fencing, don't you?" he said presently; "and you will doubtless also remember that he was the best in the crowd."

"That was plain enough," remarked Nat Young, with a sigh of envy. "You two could whip the whole battalion, if they came on two at a time. Who was he, anyhow?"

"Wylie!"

"I don't believe it. How do you know?" said Mitchell, hastily.

"I did n't, for a while; or, rather, I thought it was one of the other lieutenants; but I've seen him handle the foils before now, and when he came to use the staff there were some motions that gave me a clew which I followed up. I see you mean to keep up a feud with him, Mitchell. But, if you 'll take my advice, you will drop it right here. It won't do any good, won't hurt him half as much as it will you; and he can take care of himself every time, besides. But here's Company A."

Odd enough they looked. A number of deep-sea divers in full armor is what they most resembled; and, as they tramped solemnly forward, two by two, with their quarter-staves at right-shoulder-shift, some irrepressible second-class boy in the rear of the company piped out, in a high-keyed, falsetto voice, to the chant of "Three little kittens sat in a basket of sawdust," that identical chorus with the parody of which they had so successfully stirred up the doctor:

"Ave, Cæsar! Nos morituri te salutamus!"

And teachers' and pupils' voices joined in a hearty burst of laughter. Really, they did bear some resemblance to a company of gladiators filing in, prepared to fight perhaps their dearest friend, quite unawares, as Dane and Wylie had just now tested each other's metal. If they had car-

ried shields as well as helmets, it would have been quite thrilling. But that falsetto voice spoiled it all, and swept away every atom of sentiment, and they filed into position filled with a spirit of ready good-nature that made the task of the youthful instructors extremely easy, especially as Mr. Percival would step in and assume control of any particularly clumsy craft until he had piloted him over the shoals and into deeper water.

They found it, however, to be a tiring exercise, and although they were not allowed to practice too long at a time, yet, unused to such effort, they were glad of a chance to rest and to watch the other companies in their turn. It was hardest for the officers, who were obliged to keep right on during the whole of the two hours that were devoted to the drill. But there was an exhilaration about it, a zest which even base-ball did not possess, and which soon proved to be a most efficient restorative to tired brains, while the drill itself was in effect equivalent to a whole gymnasium, for it trained eye and hand alike, and brought every muscle into play.

During the drill, however, the workmen at the end of the hall continued their steady hammering, pausing only for an occasional curious glance at the rattling quarter-staves below them. Evidently their work had nothing whatever to do with the present occupation of the boys. They had drawn a number of old sails — which had formerly belonged to the lumber schooner "Mary Ann," as the patches sufficiently indicated — into the form of a curtain across one end of the hall, from floor to rafter, and the heavy duck hung in awkward folds.

"I have it!" said Dane, suddenly, while a knot of the boys were vainly speculating concerning the use of the curtain.

"The principal is going to have a set of cockshys here, and the curtain is to stop the sticks!"

But although the suggestion provoked a laugh, it was not accepted as a sufficient explanation, for the General himself was superintending the arrangement of the sails, and the idea of his looking after the preliminaries of a game of cockshys — (a common diversion at country-fairs, where tea-cups are hung from strings and short sticks hurled at them by the bumpkins, who pay five cents for each throw, and win ten if they happen to smash a cup) — was amusing enough to bring tears to the eyes of the boys, who laughed till they cried at the mere thought. It needed a personal acquaintance with the dignified veteran to fully appreciate the joke.

But the bell clanged from the clock-tower, and announced the beginning of study-hours, and the boys returned to their dormitories with curiosity still unsatisfied.

(To be continued.)



FIRST STEPS.

By M. M. D.

FROM the low, wide, sheltering wall
Baby drops his pretty ball;—
Baby wants it, that is all.

Why should mother hinder so,
Why not let the baby go?
Baby's wish is law, you know.

'T will not always be the way;
Baby 'll go alone some day.
Mother can not always stay,—

Well-a-day!

BEN'S PROXY.

BY WILLIAM O. STODDARD.

BEN was a remarkable pig, from the very beginning of his life.

There was a great deal of him, and everybody said so; but Ben cared very little for praise. He cared much more for the care and good feeding which came to him together with all the flattery. That, too, had its influence upon his career, and at one time his very greatness nearly led him into trouble, and he escaped it only by chance.

One bright November morning, Mr. Muggins put him into a cart, and took him to the County Fair. All the rest of the day, Ben's ears were full of praises. He was stirred up, and poked, and patted, and was continually made to stand up, when all he wished was to lie down. It was a hard day for Ben, and the only reward he received was the bright, blue "prize-ribbon" that was tied about his neck before he went home. He would have much preferred a baked apple to all this honor; but Mr. Muggins was exceedingly proud of that blue ribbon, and so were Mrs. Muggins and all the little Mugginses. On the way home, Bob and Jemima called out to every one they knew:

"Our pig took the prize!"

He had won a victory over all the other fat pigs at the Fair, and now was returning with his friends to the spot where he had passed the happiest days of his life.

Ben's home was not an ordinary "pen," such as is good enough for common pigs, who do not go to fairs and win prizes. His pen stood next to Mr. Muggins's great barn and originally had been built for a horse-stall. So it was dry, roomy, airy, and clean; and any one who knew Ben, would have thought he might well be glad to return to it again for a well-merited repose. And perhaps he might have been, if the gate to the clover-field had not been wide open, when the family so proudly escorted him up the lane toward the barn. There was trouble in getting Ben out of the cart, but not half so much difficulty as there had been in getting him into it that morning. To slip him down two wide planks to the ground was, naturally, easier than it had been to push him up those same planks, when starting to the competition for the blue ribbon.

When Ben reached the open gate to the clover-

field, he stood still and looked in; first with one eye,—a little sidewise,—then with both eyes.

It was an attractive field; for it was larger, airier, cleaner, greener, and in every way nicer, than even his pleasant apartment next to the barn.

No crowd of County Fair people would be there to praise him — and to poke him — and to tie blue ribbons around his neck.

Mr. Muggins felt that a prize-pig was entitled to gaze at the scenery surrounding his home, and willingly halted for a moment to gratify Ben's taste for landscape.

"Jemima," remarked Bob Muggins, "is n't he great!"

Just then, Ben gave a sudden lurch toward the gate, and pulled the leading-rope from the hand of Mr. Muggins. He was now free, as well as great, and he walked straight on into the clover, and lazily lay down. They all saw him go into the field, but, as he had chosen a little hollow in which to lie down, when he settled himself they could not see him at all.

"I declare!" said Mr. Muggins.

"What will you do?" inquired Mrs. Muggins, very anxiously.

"Do? With Ben? Why, he is a wise pig; that 's the best place for him. Let him stay there."

"Won't somebody carry him off?"

"Carry Ben? I think not. He would be a heavy load, even for that man who carried the cannon at the Fair! Ben would kick and squeal, too,—and that 's more than the cannon could do."

At that very moment there were two visitors walking up the lane from the gate. Mr. Muggins and his family had seen both at the Fair, and Bob exclaimed:

"Oh, Father! here 's the man with the dancing bear!"

"My!" said Jemima.

"Dear, dear!" said Mrs. Muggins.

"Oh, oh, oh!" cried all the smaller Mugginses, hurrying to get behind their mother.

"Please, Mister, could you keep me and my bear, over night?"

"Of course we could keep *you*: but I'm not so willing to board a bear," said Mr. Muggins.

"Mother! Mother!" said Jemima, "don't let him come into the house!"

"He's good-natured, quiet-mannered, and as polite as a human bein', Mister. All I want 's some sort of pen, or some place, to lock him up."

"Father," said Bob, "if Ben chooses to sleep in the clover, the bear might have his place."

"That's just the thing!" said Mr. Muggins. He was a kind-hearted man, and he saw that the bear looked tired, and as if he had been overworked at the County Fair. He added: "Put him in my prize-pig's own pen. Just what you want!"

"Tony," said the bear's master, "do you hear that? I judge you're more used up than the pig is! Mister, he's been on his feet dancin' and walkin' the whole day long. He's a willin', good-tempered, and industrious sort of a bear, the best I ever had to do with in all my days."

So it was settled. Tony was led to Ben's bedroom, out by the barn; while Ben was left in the clover, entirely ignorant of the arrangement.

Tony's master told many stories about the bear at the supper-table, and promised that he should dance for the children in the morning. For every accomplishment that was claimed for the bear, Mr. Muggins had something just as clever to relate in praise of Ben.

But Ben had even more admirers than Mr. Muggins and his family supposed; and there were three of them who had plotted and planned a very wicked thing. They had made up their minds to carry out their plan that very night. Not only had they admired Ben, at the Fair, and calculated how much good pork he would make; but they knew he had gone home again, and they knew where he usually slept, in the pen out by the barn.

Mr. Muggins never locked Ben in at night; for the door-latch was high up, out of even a prize-pig's reach. There was a hasp on the door, however, a foot above the latch, and, after Tony's master had fed the bear, he took a padlock out of his pocket and fastened the door quite securely.

"Tony can open any latch there is," he said, "and I don't approve of having him runnin' around after dark."

"That would be dreadful!" said Jemima, with a shudder. She had come out with her mother and the children to see Tony fed, and Bob at once remarked:

"I should n't be afraid of him if I should meet him—not if I had father's gun with me, and if it was loaded."

"He's a very knowing bear," said Tony's master. "He would halt you and make you tell him whether your gun was loaded; and, if it was n't, you might have to look out for yourself!"

Bob gazed curiously into the man's face, uncer-

tain whether this talk was not in fun; but still, when he returned to the house, he went and found the gun, and carried it to his own room.

"I'm glad to have it," he said, as he stood it carefully in one corner. "Father's going to buy powder and shot for it some day. He means to have the lock mended, too, and perhaps the gun will shoot, then!"

When Tony was left alone there in Ben's bedroom, he did not say a word to show that he was lonely. In fact, he seemed to be particularly comfortable and satisfied. Tired as he was, he walked all around his room, sniffing, and poking his long claws into the cracks between the boards. When he came to the door, he smelled at it carefully, and then shook it. He understood what doors were for, and knew he was locked in; for his next visit was to the great, square opening opposite the door, high up from the floor, which served for a window and to let in fresh air. It was large, but too high to be reached easily. Tony tried in vain to look at the surrounding country through it. But he could not. He should have to postpone enjoyment of the view until the morning. So he wisely resigned himself to his captivity, curled up in a corner, with his nose between his paws, and fell into a peaceful sleep.

Tired bears, like tired people, are apt to sleep soundly, and Tony had not eaten any rich food, to disagree with him and to cause disquieting dreams. He slept heavily for several hours, but was then awakened by a slight noise. Somebody was trying to get in at the door, and he heard a voice saying:

"Dick, it's padlocked."

Then another voice answered:

"Never mind, Bill. The window will do just as well."

Then a third voice said, very softly:

"We must look out not to let him squeal. We'll lose all our pork if he squeals!"

These were the three men who had so much admired Ben,—but Tony knew nothing about that. Neither did the men know that Ben was fast asleep in the clover-field, with plenty of air and room all around him, and with no padlocked door to guard him. Next, Tony heard some noise at the window:

"Keep still now, Dick, till I get in. You two fellows come right along after me,—I won't let him give a single squeal!"

Then Tony knew they were coming in at the window, one after another, and he stood up on his hind feet, in the corner, against the wall.

"He's here, Dick. I can hear him breathe."

"He's lying 'round, somewhere."

"Careful, now! No noise!"

Tony himself was not making any noise, but as

he was a fine boxer, he was actively brandishing his fore-paws before him in a very skillful way.

"It's awful dark, Ned."

"Look where you're going, Bill!"

The man named Dick was a little ahead of Ben's two other admirers, and just at that moment, in the darkness, he stepped within reach of Tony's paws.

ment, and Ned was forced to cry out, "O-o-o-h! Help!"

This was said loudly enough for all the people in the house to hear it. They were in bed and asleep when the noise was first heard from Ben's quarters out by the barn. They all were dressing themselves now, just as fast as they could.



Such a box on the ear as the dancing bear gave him! Tony had struck with such force that the blow made Dick spin round and round, till he fell flat on the floor near the door.

Next came Bill's turn, and he rolled over and over about as far, but in the other direction.

It was the wrong time for making noise, but, nevertheless, they could not help exclaiming with much emphasis: "Oh, o-o-h!"

"What's the matter, boys?" asked the man called Ned; but before Dick or Bill had time to explain the cause of their exclamations, he found himself grasped in a pair of wonderfully strong, shaggy arms.

"O-o-h! Boys! This is no pig! It's a bear!—and he's a-huggin' me!"

Ned may have been a dishonest man at other times, but now he was telling the exact truth. If he had been Tony's best friend, in the whole world, and if Tony had been sitting up all night waiting to give him a hearty welcome, he could not have been hugged much harder than he was at this mo-

"THERE STOOD TONY IN THE CORNER WITH NED IN HIS ARMS."

Tony's master and Mr. Muggins led the race to the pen and were the first to reach its door.

Mrs. Muggins came next, with a candle in each hand, and, actually, one of the candles was lighted!

Bob, with the trusty gun, followed her. "Father," he exclaimed, "it's some one trying to run away with Ben!"

"They won't run any great distance with the prize-pig they've captured *this* time," remarked Tony's master, confidently, as he listened to the loud exclamations of the man called Ned. "We must be quick, too, or Tony will hug the man to

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pieces. He's the strongest bear I ever had anything to do with."

They unlocked the door in a moment.

There stood Tony in the corner with Ned in his arms, and there, on the floor, sat Dick and Bill, each of them holding one hand against the side of his head.

"I declare!" exclaimed Mr. Muggins.

"Well, well!" said his wife.

"Father," shouted Bob, "it's Ned Jones, and Dick Brown, and Bill Robinson. They came after Ben! I know they did!"

"Drop him, Tony! Drop him!" said his master. He's had enough—he won't steal you!"

Tony dropped his armful and began to dance, while Mr. Muggins said to the three men, very solemnly:

"You can go home now, boys. I'll settle this

business with you some other time. I'm ashamed of you!"

Mrs. Muggins added:

"So am I ashamed of you. Such a pet as our Ben is, and he had just taken the prize too!"

Dick and Bill had to hold Ned's arms and to help him walk, but they all went away. Not a word was spoken by any of them until they were half-way down the lane. Just there they all heard a deep, contented, self-satisfied grunt, that came from somewhere out in the clover.

"Boys," said Bill, "if there is n't Muggins's prize-pig, now. We might have had him, just as easy!"

That was likely, and it was as well for Ben that they had gone to his pen and found Tony there.

At that moment the latter's master was saying to Bob Muggins:

"My young friend, a bear like that is a far better protection to a house than any gun."

"HAM" ESTABROOK'S CAN-OPENER.

BY GEORGE P. WHITTLESEY.

A STAMPING on the steps, followed by a draught of cold air and a slam of the door, announced to his father and mother the entrance of Hamilton Estabrook, the son and heir of the family; an ordinary-looking boy of seventeen, neither very tall nor very short, having a pleasant face and a good figure. He was now in the junior class of the High School, and stood well in his studies. He possessed, in no small degree, his father's gift of shrewd common sense, and he had made up his mind to go to college, if possible. The High School fitted boys for the college, which was located on the outskirts of the village, and nearly all of Ham's classmates were preparing to enter very soon.

The junior class were now nearing the end of the school year, and Ham was looking forward eagerly to the next year's work, which would complete his preparation.

To-night, however, his face as he entered the room wore a thoughtful expression. Again and again the question had occurred to him, "How can I pay for my college course?" and on his way home he had been considering this oft-recurring problem.

"Father," he began, abruptly, rubbing his cold fingers together over the warm stove, "I think I'd better leave school before the end of the term,

and get some work for the summer. I must earn all the money I can, between now and a year from next fall, 'cause after that I sha'n't have much spare time, and I'm bound I won't ask you for a cent for my college expenses. I went to see the president this afternoon, and he told me that a year's expense would be at least two hundred and fifty dollars. My tuition will be seventy-five; books, about eight, second hand, you know; clothes, say thirty-five; board and washing—whatever you and mother think right; I don't think it will come to more than two hundred dollars."

"I heard to-day," said Mr. Estabrook, after the family were seated at the supper-table, "that a man over at Bath has made an invention of some thin' or other, and sold it for quite a sum of money. He sent down to Washington, got a patent for it, and then sold it to one of the Bath ship-chandlers for a snug little price. You are an ingenious sort of a chap, Ham," he continued, "perhaps you could get up a patent, and sell it for enough to put you through college."

Ham's eyes sparkled at the idea. He had more or less inventive faculty, and the possibility of making it of practical use was highly attractive to him.

Everything soon wore a new aspect to the eyes

of this would-be genius. He found himself observing the shape and construction of all things with which his daily duties brought him into contact.

One night his father complained that the pumping-engine, at the paper-mill, of which he was in charge, was not so reliable as it should be. Acting upon this hint, Ham had, in a few days, worked out what he thought was a perfect pumping-engine. He made a careful drawing embodying his idea, and, with a great show of secrecy, exhibited it to the foreman of the paper-mill.

"Here," explained Ham, "is just what you want. I know all about the defects of those old pumping-machines of yours, and I've got up one of my own, which is perfect"; and he rattled on enthusiastically, talking glibly about the "improved result," "new idea," "perfect machine," and so on.

The foreman listened quietly, but with a queer smile playing about the corners of his mouth. When Ham ceased, for want of breath and ideas, he simply said: "Come along with me; I'll show you something!"

Ham followed him, having an uneasy feeling of impending disaster. The foreman led the way to a gloomy corner of the basement, and there pointed to the remains of some old machine heaped confusedly together. Ham, by the light of a gas-jet, which the foreman lighted, hastily examined it. To his amazement and dismay, it proved to be nearly an exact embodiment of the ideas shown in his drawing. He turned almost fiercely upon the foreman, who, in answer to his look of inquiry, said:

"We tried it four years ago, but it would n't work. I'm sorry for you, Ham," he added, kindly, as he noticed the boy's disappointment, "but you'll have to try something else, I'm afraid, if you want to get a patent."

A few days later, Ham entered the room of the agent at the railroad station. Remembering his former disappointment, his air was less confident than upon the visit to the mill, but he argued and sketched until his new device, a car-coupler, was explained to his interested listener.

"The reason a man gets injured," declared Ham, in conclusion, "is because he gets between the cars."

As there was no denying this, the station-agent preserved a wise silence.

"But," continued Ham, "at present he must go between the cars to hold up the link, unless he uses something to reach in to the link. Now, a man don't want to lug a stick about with him all the time. So I provide a means for holding up the link on each car. Across the end of the car I place a round

rod of iron, turning in bearings, and bent down at the ends to form a handle at each side of the car. At the middle of this rod, and consequently right above the draw-bar, I weld an arm, an iron rod, sticking out about two feet, more or less. From the end of this I hang a loop of small chain, reaching down and catching over the end of the link. The brakeman, standing at the side of the car, can take hold of the handle, and, by turning the bar, he moves the arm up or down, and can thus adjust the link to the right height to enter the draw-head of the car which is to be coupled."

"That is very nice, indeed," said the station-agent; "but what are you going to do with it?"

"Why, get it patented, —" said Ham.

"Hold on, Ham," interrupted the station-agent, "you can't get a patent for anything that has been patented before, or that has been described in any printed publication before your invention of it."

"Well — what of it?" faltered Ham, a chilling fear beginning to steal over him.

"Only this," rejoined the station-agent. "I remember seeing something like that a good while ago, in a scientific paper. Let me see," and he began searching among some bound volumes on the lower shelves of the office book-case. Those few moments of suspense seemed very long to poor Ham, but presently the agent said, "Ah! here it is," and showed to the half-eager, half-reluctant boy a wood-cut and description of a device substantially the same as that he had been so eagerly advocating.

Ham's next invention was simpler. He had somewhere read that the largest fortunes are usually made from the little improvements, not from the great inventions.

Accordingly, he was soon in consultation with his teacher over a new mode of teaching Geography by means of sectional maps. Each State in a map of the United States, for example, was to be drawn to scale, pasted on a thin piece of wood, and then carefully trimmed to remove all the surrounding wood and paper up to the boundary lines. When the sections were properly joined a complete map would be made; while, when separated, the pieces were valuable because they would give correct ideas of the comparative sizes of any given number of States, when those which are widely separated on the map were brought together. "In this way," argued Ham, "the danger of acquiring false or confused ideas respecting the true relative size and importance of various parts of the world would be removed, while now, from the use of many maps drawn on as many different scales, mistakes and errors are naturally common."

But our inventor's hopes were again doomed to

disappointment. The schoolmaster said that he himself had made such a set of maps for use in a school which he had taught in a neighboring town, and that he had used them for several terms with great success.

Ham was now thoroughly discouraged. He began to realize that the world was much larger than it had formerly seemed. He had hastily jumped to the conclusion that because *he* had never seen or heard of a certain device, therefore it must be unlike anything ever invented. But now he found that many busy minds are intent upon problems just such as he had so easily solved; that trained and logical intellects are everywhere ready to seize even the smallest chance for an improvement upon the contrivances now in use; or, sometimes, to open a new field for research and discovery.

The day after his interview with the High School principal, Ham announced at the supper-table that he should give up trying to patent anything, and should try to get a place in a store or on a farm for the summer. In that way he was sure to earn a little, and of this he could be certain; which was preferable to the uncertainties of inventing.

"Well, I am glad to hear you say so," exclaimed Mrs. Estabrook, briskly stirring her tea. "Now you can quiet down to your studies again, and keep your eyes open for a place to work."

And Ham kept his eyes open to good purpose; for, before long, he learned that Mr. Naylor, the hardware merchant, wished a boy for the summer. Ham applied, and was accepted at once, since he was well known to the business-men of the village as an honest, energetic young fellow, who would be faithful and obliging, both to employer and to customers.

By careful and strict economy, Ham hoped to save about fifty dollars during the summer. He intended to deposit this in the Savings-bank, and to leave it there at interest till the following summer, when he hoped to add enough to give him a good sum for his college course. He quite reconciled himself to this prosaic plan, and congratulated himself upon having had the good sense to give up inventing as a means of making money.

One pleasant day in June, a young girl entered the store and approached the counter. Looking up, Ham found that it was one of his High School friends, Miss Bessie McAllister.

"Oh, Ham!" she said, "I do hope you have what I want. I've been to two other places, and can't get it. We're going to Harpswell next Saturday for a picnic, and I must have something of the kind,—it will be so convenient; and just as handy as can be, you know, and will save carrying about

so many things, and—have you one, do you suppose? Now, don't tell me you have n't!"

"Have I what?" asked Ham, rather dazed by this flow of words.

"Why, a can-opener and a corkscrew, all in one," answered Bessie, with an expectant air.

But, although Ham searched the whole store, he could not find such an implement.

"What's the use of it, anyway?" he finally asked, brushing the dust from his hands and clothes.

"Why, it would be so handy," repeated Bessie.

"Instead of two things to look after, you would have only one, and you always need a can-opener and a corkscrew at a picnic, and somebody is sure to forget one of them, or to lose one, if both are brought. I am very much surprised that you have n't it in the store. I should think it would have been invented long ago."

A sudden idea occurred to Ham.

"When do you need it?" he asked, abruptly.

"Next week, Saturday," answered Bessie.

"I think I can have one for you before then," replied Ham.

"Oh, thank you, ever so much," exclaimed Bessie, smiling gratefully. "Tom said I could n't buy such a thing in the town, but I told him I knew *you* could find it for me. Good-bye," and she tripped away.

That night, Ham's dreams were a queer mixture of can-openers, corkscrews, curls, drawings, patents, and picnics. The next day, his mother observed with dismay that he had again fallen into the absorbed, absent-minded way which he had while studying intently. At supper, she startled the unsuspecting boy by the shrewd remark:

"So you've begun your inventin' again, have you, Ham?"

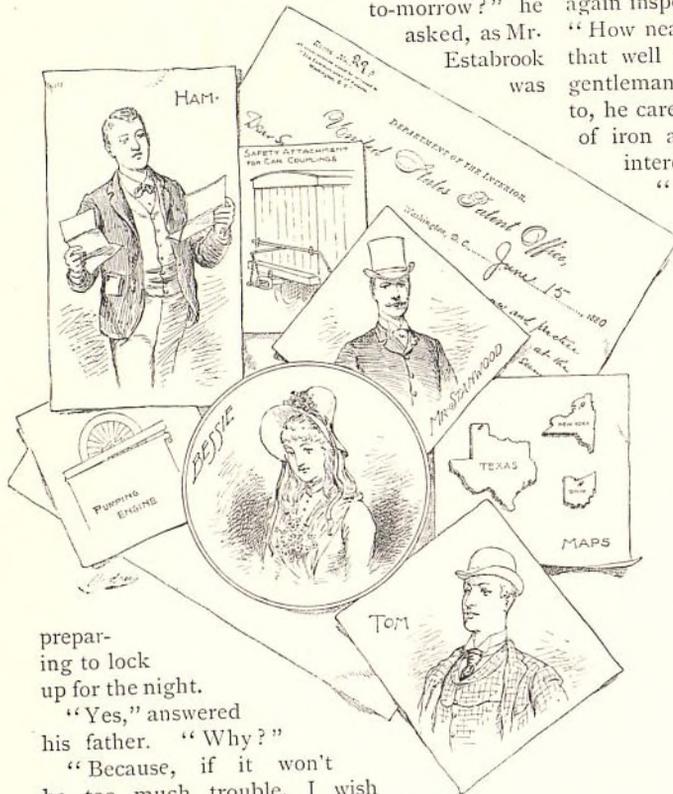
"Yes," said Ham, rather shortly.

"I thought you were through with that sort of thing," continued his mother.

"Well, I thought so, too," returned Ham; "but you see, Mother, the inventive faculty is like that old chap's ghost in Macbeth—it will not 'down.' I've got an idea, and I think it's about worked out, now, into practicable shape," and Ham told of the request which Bessie McAllister had made, and explained his suddenly formed resolution to invent what she had asked for.

After supper, Ham procured some hickory, and proceeded to fashion a model of the invention which he had thought out during the past twenty-four hours. It was very simple, and yet bore an air of completeness, of adaptability to the work expected of it, which was quite cheering to the young mechanic, as he put aside his tools and surveyed the completed model.

"There," he exclaimed, in a satisfied tone, "I call that pretty good, for one evening's work, if I *did* do it. Father, did I hear you say you had to go over to Bath to-morrow?" he asked, as Mr. Estabrook was



preparing to lock up for the night.

"Yes," answered his father. "Why?"

"Because, if it won't be too much trouble, I wish you'd take this model to the foundry and have some of these handles made for me. They should be cast in soft gray iron."

"How many do you want?"

"Not very many — say ten, or a dozen."

"Very well," said Mr. Estabrook, taking the bit of wood. "I'll attend to it."

Three days later, Ham received word that his castings were ready, and a friend, who was a brakeman on the noon freight-train, consented to bring them over for him. For two or three days he spent all his spare time at his work-bench, filing and drilling and fitting. At length, one tool was done; and Ham marched proudly up the walk to the McAllisters' house. Just then, Bessie came from the garden with a young gentleman, a stranger to Ham.

"Oh, Ham!" she cried, "is that you? What have you brought — my 'patent can-opener'?" and she held out her hand for the bundle.

"Why, how nice this is!" she exclaimed, examining it critically. "I knew there must be one to be bought, somewhere. Where did you find it?"

Ham modestly explained that it was his own idea, and that he had made the one which she now held.

"Did you really make this?" queried Bessie, again inspecting the tool, with increased interest. "How neatly it is done! See, Cousin Joe, isn't that well made?" and she turned to the young gentleman, who stood quietly by. Thus appealed to, he carefully examined the shining combination of iron and steel; then, looking up with an interested air, he asked:

"Did you say this invention was an original one with you?"

"Yes, sir," answered Ham.

"Why don't you secure a patent for it?" continued Cousin Joe.

Before Ham could answer, Bessie suddenly remembered that she had forgotten to introduce the two young men, and at once proceeded to do so.

"Cousin Joe," she broke in, "this is Mr. Estabrook, a classmate of mine, at the High School. Mr. Estabrook, this is my cousin, Mr. Stanwood.

"My cousin," she explained to Ham, "is a lawyer, and knows all about patents. He can tell you exactly what you should do to get one."

"Do you think that this can-opener is patentable?" asked Ham, anxiously, of the young lawyer.

"Yes," said the latter, now surveying the implement critically. "I don't think there is anything exactly like this in the Patent Office. Why don't you apply for a patent?" he added.

Just here they were interrupted by the ringing of the dinner-bell, and Ham took his leave.

But the lawyer's question kept repeating itself in Ham's mind as he hurried back to the store. All the afternoon and evening it was the uppermost thought in his busy brain; and the next day he concluded that it could do no harm merely to apply for a patent, — if he should be successful, so much the better. He at once set to work to finish another model, and when this had been accomplished to his satisfaction, he sent it to Washington with the following letter:

BRUNSWICK, ME., June 10, 1900.
DEAR SIR: I send you to-day a model of an invention which I have made. It is a can-opener and a corkscrew all in one tool. I want a patent for it, if you can give me one. Please send the patent as soon as possible.

Yours truly,
HAMILTON ESTABROOK,
TO THE COMMISSIONER OF THE PATENT OFFICE,
WASHINGTON, D. C.

The Chief Clerk of the Patent Office paused a moment in his rapid inspection of the morning

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mail, and as he read the boy's letter smiled to himself at its honest ingenuousness.

"He must think we keep patents all signed, sealed, and stacked up like fire-wood, ready to be given out to the first person who applies for one," he muttered, carefully laying the letter aside for his personal attention later in the day.

About this time Ham suddenly developed a fondness for the village post-office. He knew the exact minute when every Southern mail was due, and was always on hand for the ensuing deliveries at the office.

"Mail's open," called the postmaster, one day, pushing up the shutter of the little window. "Anything for you? Yes,—let me see—yes, here you are—official documents, too," and two envelopes were passed through the window.

Ham could hardly wait to reach a secluded place before opening the letters; but he succeeded in restraining his impatience until he was safe in his workshop, an unfinished room above the woodshed. He first opened the smaller envelope, and drew out the following letter:

Room No. 29. All communications should be addressed to "The Commissioner of Patents," Washington, D. C.

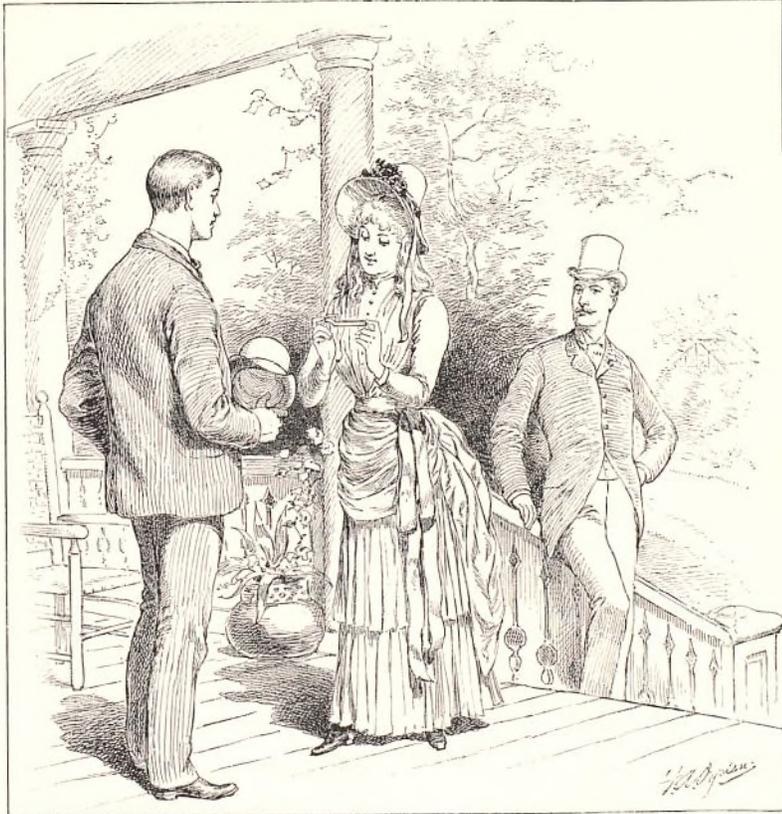
DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., JUNE 15, 1880.

HAMILTON ESTABROOK, BRUNSWICK, MAINE.
In reply to your letter of the 10th inst., you are informed that in order to obtain a patent for your invention, it will be necessary to file an application therefor in due legal form, complying with the rules of practice before this office.

A copy of the rules is mailed herewith, giving full instructions for drawing up applications.
F. A. SEELY, Chief Clerk.

Disappointed, and half vexed at the cold, formal tone of the letter, Ham tore open the other envelope and found a pamphlet in slate-colored paper covers, entitled, "Rules of Practice in the United States Patent Office. Revised December 1, 1879." It contained some fifty pages of "Rules," duly numbered and arranged under different headings; about fifty forms, of petitions, specifications, and

other papers; and a specimen drawing, ingeniously folded between the pages, showing the size and style of drawing which the Patent Office requires. Ham eyed this with mingled admiration and despair, for he knew he could not make so clear and beautiful a drawing as the one before him, and how to succeed in complying with this requirement he did not know. Confused and disheart-



"DID YOU REALLY MAKE THIS?" QUERIED BESSIE.

ened by the multitude of formalities which this somber pamphlet had arrayed between him and his desired goal, Ham put the book carefully away, and went down to supper with a solemn face.

Ham received a call that evening from Miss Bessie's brother Tom, and her cousin Mr. Stanwood. Tom had been an old playmate of Ham's before going to Boston to enter his uncle's banking-house, some three years before.

After greetings had been exchanged, Mr. Stanwood asked:

"Well, how is your Great American Can-Opener progressing? Applied for a patent yet?"

"Why, yes," answered Ham; "I sent one of the openers down to Washington, and wrote them that I wanted a patent for it, and they sent me back a

lot of 'Rules of Practice,' which I can't make much out of, yet."

"Have you been inventing something?" inquired Tom, with interest.

"Yes," said Mr. Stanwood, "he's got a good thing, too, I think."

Mr. Stanwood soon made plain to Ham the formalities necessary to properly present his invention before the Patent Office, and marked such parts of the pamphlet as were applicable. These amounted to about twenty pages. Mr. Stanwood then went over these portions rapidly, explaining to the young men the meaning of certain phrases, and finally summed up by saying:

"So you see that a legal application is made up of five parts: the petition, which is the technical term for the application proper; the specification, or description; the oath; the drawing; and the fee. They used to require a model, also, but now that is dispensed with, unless specially called for by the examiner."

"Who is the 'examiner'?" asked Tom.

"The examiner is the officer who examines your invention, to see whether it is novel and useful, which it must be to entitle you to a patent."

"The Patent Office," continued the lawyer, "is in charge of the Commissioner of Patents. To help him, he has an assistant-commissioner and a law-clerk. Matters of ordinary routine are in charge of a chief-clerk. The examination of applications is intrusted to twenty-five principal examiners, each of whom has a first, a second, and a third assistant.* There is also a Board of Appeals, composed of three examiners-in-chief; an examiner of interferences, and several chiefs of divisions, who superintend the copying, assignment, and issuing of patents, the publication of the *Official Gazette*, the making and photo-lithographing of drawings, the care of models, the receipt of fees and other moneys, and so forth. The whole office contains some five or six hundred clerks. The examiners are the representatives of the Commissioner, to whom he delegates the work of determining the merits of the various applications for patents. The law requires the Commissioner to issue a patent for every invention which shall be found to be 'new and useful.' Of course, the Commissioner can not personally inspect and decide upon the twenty-five thousand applications for patents which are made every year. This is the work of the examiners, each of whom has charge of all inventions of a certain kind. Inventions are classified into about one hundred and sixty-seven classes. Each examiner has assigned to him six or eight classes, which he subdivides to suit his own convenience. All applications are distributed among the examiners, according to the

nature of the inventions. The examiner sees to it that each application is properly examined in its turn, and finally, when satisfied that a case covers nothing that is not patentable, he sends it to the Issue Division, where a patent is drawn up and duly issued.

"But how about your application, Ham?" continued Mr. Stanwood. "Don't you want to have me show you how to draw up the papers, and push the thing ahead?"

"I should be ever so much obliged," replied Ham; "but, you see, I think I won't go any further with it. I—it takes,—well, the fees are pretty heavy, and you know I have n't got very much cash to throw away on uncertainties. You say it costs,—how much?—fifteen dollars—to make the application? and if you don't get your patent, you lose your fifteen dollars. And then, too, I'm a minor, and father says that that would keep me from getting a patent."

"Oh, no," said Mr. Stanwood; "a minor can take out a patent just as well as anybody."

"As for the money," put in Tom, "I'll advance the money you need, if you'll agree to go shares in the profits when you sell your patent."

Ham's face brightened at this kind offer, and after some further consultation the party separated, agreeing to meet the next evening to draw up the papers.

At the hour appointed, Ham was in attendance, and soon found himself seated at a table in the library, in company with Tom and Mr. Stanwood. A student-lamp shed a soft light upon the books and papers upon the table, and through the open windows came the whispering wind, bringing the odor of the tall, prim pines, and the distant roar of the river rushing down the rapids and over the three dams.

"I've been drawing up some parts of the papers," said Mr. Stanwood; "the formal parts, I mean. Did you bring me one of your can-openers? Oh, yes;—wait a minute," and he rapidly sketched the tool in one or two positions. "Now, if you will tell me what you intend to call the invention, I will fill in the title, and we can proceed."

"I thought I would call it the 'Picnicker's Pride,' or the 'Housekeeper's Helper,' or something of that sort," said Ham, in answer to Mr. Stanwood's suggestive question.

"That will hardly do," he replied. "Such a title as that is called a trade-mark, and is not allowed by the Patent Office in an application for a patent; for the title of a patent must 'correctly indicate its nature and design,' according to the Revised Statutes of the United States."

"Well, what would *you* call it, then?"

*Another grade—that of fourth assistant—was established in 1882, and there are now twenty-nine examining divisions.

"Why, call it just what it is — a combined can-opener and corkscrew."

"All right," said Ham. "But what are those letters for, on your drawing?"

"To aid in clearly describing the tool," answered Mr. Stanwood. "You'll see, when we come to write out the specification," and he scribbled hastily upon a scratch-block.

"What claims do you intend to make?" he asked, presently.

"Claims?" repeated Ham. "What do you mean?" and then, without waiting for an answer, he went on, "Why, I claim that it is the handiest little tool ever invented; that there is nothing like it in the market, and that it will do equally good work as a can-opener or as a corkscrew."

Mr. Stanwood laughed. "Those would be excellent claims for an advertisement, but hardly suitable for a patent. They relate to the advantages of the whole tool, while the law requires the applicant for a patent to 'particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery.'"

"Well," said Ham, "you can write out such a claim better than I can, and I'll be obliged if you will do it for me; I don't think I am equal to it." His invention was assuming increased importance in the new light thus thrown upon it.

The young men consulted and scribbled all the evening, and the result of their labors was an official-looking set of papers, neatly written upon legal-cap, on one side of the sheet, numbered, and secured together by paper-fasteners to prevent disarrangement.

First came the petition, as follows:

PETITION.

To the Commissioner of Patents:

Your petitioner, Hamilton Estabrook, a citizen of the United States, residing at Brunswick, in the County of Cumberland, and State of Maine, prays that letters patent may be granted to him for the improvements in combined Can-Openers and Corkscrews, set forth in the annexed specification; and he hereby appoints Joseph Stanwood, of the town of Brunswick, State of Maine, his attorney, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein; to receive the patent, and to transact all business in the Patent Office connected therewith.

HAMILTON ESTABROOK.

Then followed the specification:

SPECIFICATION.

To all whom it may concern:

Be it known that I, Hamilton Estabrook, a citizen of the United States, residing at Brunswick, in the County of Cumberland, and State of Maine, have invented a new and useful combined Can-Opener and Corkscrew, of which the following is a specification, reference being had to the accompanying drawing, in which

Fig. 1 is a perspective view, showing the corkscrew open and ready for use;

Fig. 2 is a similar view, showing the corkscrew closed and the tool in condition for use as a can-opener;

Fig. 3 is a longitudinal section on the line x — x Fig. 4, and

Fig. 4 is a cross-section on the line y — y, Fig. 3.

Similar letters refer to similar parts throughout the several views.

The handle, A, nose, B, and blade, C, are of the usual shape and construction, except that the handle is nearly semicircular in cross section, as is clearly shown in Fig. 4.

Near the center of the handle, A, and in the hollow, D, are two ears, E, one on each side, cast in one piece with the handle; or riveted or soldered in place.

Between the ears or lugs, E, is fitted the shank, F', of a corkscrew, F. A pin, J, passes through the handle, A, ears, E, and shank, F', and is headed down at each end to secure it. Shank F' turns easily on this pin.

A flat steel spring, G, is attached to the handle, A, by a rivet, g, passing through one end thereof. The free end of the spring passes between the ears, E, and bears upon the shank, F'. When the corkscrew, F, is open, the spring presses upon the end of the shank, and holds the corkscrew in position relatively to the handle. When the corkscrew is closed, the spring rests upon the inner side of the shank and resists any tendency of the corkscrew to open, until some little force is applied. As shown in Fig. 4, there is sufficient space left between the inner side of the shank, F', and the handle, A, to permit the corkscrew to be opened without striking the corners of the shank against the handle.

I also provide an additional means of fastening the corkscrew, F. As shown, a block, H, is seated in the hollow, D, either by soldering or riveting, or by casting in one piece with the handle. Formed in one piece with it, or secured to it, is the plate, h, which extends beyond the face of H, and forms a shoulder. Plate h is cut away at h', to permit the end of the corkscrew to be sprung up over the shoulder, where it rests securely, after the manner of some styles of safety-pins.

The operation of this improved tool is obvious. When it is to be used as a can-opener, the corkscrew is shut up out of the way within the handle. When it is desired to make use of the corkscrew, it is opened out, as in Fig. 1, in which position the handle, A, serves as a handle for the corkscrew, by which to turn it and to lift it. I thus provide in one tool two separate implements, either of which can be used at will without interfering with the other.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is

1. A combined can-opener and corkscrew, substantially as, and for the purposes set forth.
2. A can-opener having a corkscrew pivoted thereto, substantially as, and for the purposes, set forth.
3. A can-opener having a corkscrew pivoted thereto, and provided with a single means for holding it both in an open and in a closed position, substantially as, and for the purposes, set forth.
4. A can-opener, having the handle, A, the ears, E E, the corkscrew, F, having its shank, F', pivoted between the ears, E E, and the spring, G, secured to the handle, and bearing upon the inside of the shank, substantially as, and for the purposes, set forth.
5. A can-opener, having the handle, A, the corkscrew pivoted thereto, means for holding the corkscrew both in an open and in a closed position, and additional means for securing the point of the corkscrew when closed, substantially as, and for the purposes, set forth.
6. A can-opener, having the handle, A, the ears, E E, and block, H, provided with cut-away plate, h, the corkscrew, F, pivoted between the ears, E E, and the spring, G, secured to the handle, and bearing with its free end upon the inner edge of the shank of the corkscrew, substantially as, and for the purposes, set forth.

HAMILTON ESTABROOK, *Inventor*.

Witnesses, { THOMAS E. McALLISTER, }
 { JOSEPH STANWOOD. }

OATH.

State of Maine, }
 County of Cumberland, } ss.:

Hamilton Estabrook, the above-named petitioner, being duly sworn, deposes and says that he verily believes himself to be the original, first, and sole inventor of the improvement in combined Can-Openers and Corkscrews set forth in the accompanying specification; that the same has not been patented to himself, or to others

with his knowledge or consent in any foreign country; that the same has not, to his knowledge, been in public use or on sale in the United States for more than two years prior to this application, and that he does not know and does not believe that the same was ever before known or used.

HAMILTON ESTABROOK.

Sworn to and subscribed before me, this 21st day of June, 1880.



EPHRAIM FORSYTH, *Notary Public.*

The seal and signature of the notary were obtained the following day, when Ham appeared before this official, and, with uplifted hand, took the oath, acknowledged the signature as his own, and paid the fee of fifty cents charged by the notary for his services.

Mr. Stanwood engaged a mechanical draughtsman, with whom he was acquainted, to make the drawing. It was carefully made on good Bristol-board, and measured ten by fifteen inches. A marginal line, one inch from the edges, confined the "sight," or part drawn upon, to a space eight inches by thirteen. A space was left at one end for the title, and, at the bottom, Ham signed his name in the right-hand corner, while in the other corner appeared the signatures of two witnesses. The figures and their lettering corresponded with the description in the specification.

The drawing and other papers were then mailed to the

*Commissioner of Patents,
Washington, D. C.,*

with a letter of transmittal, which read as follows:

BRUNSWICK, Me., June 26, 1880.

HON. COMMISSIONER OF PATENTS, SIR: I enclose herewith the Application of Hamilton Estabrook for Letters Patent for an improved Can-Opener and Corkscrew, comprising the petition, oath, specification, drawing, and fee,—a post-office order for fifteen dollars. A model was sent June 10, 1880.

Very respectfully, JOS. STANWOOD, Att'y.

These papers, being received at the Patent Office, were stamped in blue ink with the date of their receipt. The drawing was examined by the Chief Draughtsman, to see that it conformed with the office rules, was stamped on the back in red ink, "O. K., Draughtsman," and returned to the Application Division. Here the petition, oath, and specification were placed in a stout blue file-wrapper, or "jacket," upon the face of which was entered the serial number of the application, name of applicant, his address, date of receipt of the different parts of the application, and the name and address of the attorney.

Meanwhile, the following receipt was sent to Mr. Stanwood:

Room No. 37. All communications should be addressed to "The Commissioner of Patents, Washington, D. C."

Series of 1880. No. 13,133.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., June 30, 1880.

SIR: I have to acknowledge the receipt of the petition, specifica-

tion, and drawing of your alleged Improvement in combined Can-Opener and Corkscrew, with fifteen dollars as the first fee payable thereon.

The papers are duly filed, and your application for a patent will be taken up for examination in its order.

You will be duly advised of the examination.

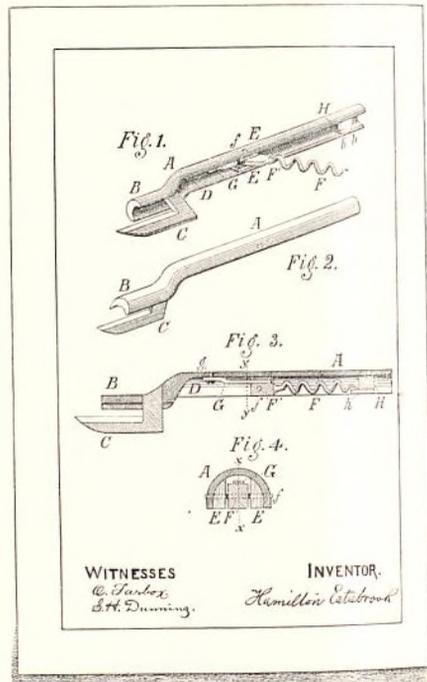
Very respectfully, E. M. MARBLE,
Commissioner of Patents.

H. Estabrook, care Jos. Stanwood, Brunswick, Me.

NOTE.—In order to constitute an application for a patent, the inventor is by law required to furnish his petition, specification, oath, and drawings (where the nature of the case admits of drawings), and to pay the required fee.

No application is considered as complete, nor can any official action be had thereon, until all its parts, as here specified, are furnished in due form by the inventor or applicant.

The next day the blue file-wrapper, with its contents and the drawing, were received in "Divi-



sion 12," of the Patent Office, and, after the clerk had properly written in the "Journal" the several items necessary to be entered upon the receipt of an application, the case was assigned to one of the assistant-examiners. In the course of a week he reached it, and after careful reading and inspection, proceeded to make a search among the drawings of patents in the class of "Household Articles; corkscrews." Not feeling that this search was sufficient, he also examined the "compound tools," and "can-openers." An inspection of the English, French, and German patents then followed. The results of his investigation were presently reported to the Primary Examiner in charge of the division,

and the claims of Estabrook were carefully considered in the light of the patents which the assistant had found. A few days later, Mr. Stanwood showed Ham the following letter:

Room No. 102. All communications should be addressed to "The Commissioner of Patents, Washington, D. C."

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., July 9, 1880.

H. ESTABROOK, care Joseph Stanwood, Brunswick, Me.
Please find below a communication from the Examiner in charge of your application, No. 13,133, for a Patent for Improvement in combined Can-opener and Corkscrew filed June 30, 1880.

Very respectfully,
E. M. MARBLE,
Commissioner of Patents.

Claim 1 is met by each of the following:

Harrigan, July 25, 1871, No. 117,278, Compound Tools, showing a handle having a can-opening blade at one end, and a corkscrew invented into this handle at right-angles thereto; and Jenness, Mar. 23, 1875, No. 161,124, Corkscrews, showing a knife, with a corkscrew pivoted to the handle, and folding down against the back thereof.

Claim 2 is met by Jenness, cited, in which either of the knife-blades is capable of use as a can-opener.

"What does that mean?" asked Ham. "Are they going to give me a patent?"

"Oh, yes," replied Mr. Stanwood, in whose care the letter had been addressed, as the attorney for Estabrook. "It only means that the first and second claims are said to have been anticipated by those inventors."

"But what are the dates and numbers for, and what does 'Compound Tools' and 'Corkscrews' mean?" continued Ham.

"The dates and numbers are those of the patents of these inventors reported as anticipating your invention; and the words following the numbers are merely references to the sub-class of inventions in which these patents may be found at the Patent Office. I will send for printed copies of them — which will cost us twenty-five cents each — and then we can see about amending."

"Amending?" repeated Ham.

"Yes; making such changes in the claims as to relieve them from the objection of claiming matter shown or claimed by these prior patentees. You see that only two claims are rejected. The rest are 'allowed,' as they say, and you can get a patent for them, at least."

A careful inspection of the patents cited in the examiner's letter convinced Mr. Stanwood and Ham that it would be wisest to erase the rejected claims, and to secure a patent for the others. The following paper was accordingly drawn up by Ham's attorney:

BRUNSWICK, Me., July 18, 1880.

HON. COMMISSIONER OF PATENTS,

SIR: I have the honor to acknowledge the receipt of the official letter of July 9th, rejecting certain claims in the application of Hamilton Estabrook, serial number 13,133, filed June 30, 1880, for combined Can-opener and Corkscrew.

Please amend as follows: Cancel the first and second claim, and change numerals of remaining claims accordingly.

Very respectfully,
JOS. STANWOOD, Att'y.

"Don't you want me to sign that?" asked Ham, as he saw the lawyer fold up the paper, and prepare to address the envelope.

"It isn't necessary," was the answer. "The correspondence is carried on by the office with an applicant, or with his attorney, but not with both at once. You remember that by a 'power of attorney' inserted in the petition of your application, you gave me full authority to make all necessary amendments."

"All right," said Ham. "But suppose they reject some more of the claims; what will you do then?"

"I can amend as often as they cite new references. If I refuse to cancel a claim which they have rejected, and they reject it a second time on the same references, then, if I still think the rejection was an error, I can appeal to the Board of Examiners-in-chief, by paying a fee of ten dollars. If the Board sustains the examiner, I can pay another fee and appeal to the Commissioner of Patents. If he agrees with the examiner and the Board of Appeals, then I can appeal from his decision to the Supreme Court of the District of Columbia; and finally, if necessary, I can bring a suit in equity to compel the Commissioner to issue a patent."

"Then the decision of the examiner is not final," suggested Ham, rather mystified by this technical explanation.

"No; an applicant has plenty of opportunities to test his claims and prove his right to them, if possible."

Another contingency occurred to the anxious young inventor. "Suppose some other fellow has invented a combined corkscrew and can-opener, and has applied for a patent. How do they decide to whom to issue the patent,—or do they give one to each of us?"

"No; the law says that the patent shall be granted to the first inventor — not the first to present his application, but the first to really complete the invention; or, as it is called, to 'reduce the invention to practice.'"

"But how can they tell?" persisted Ham.

"They institute what is known as an 'interference,' which means that each of the parties is notified that his application has been found to interfere with another. Then each party must, within a certain time, file a concise statement, under oath, showing the date of his original conception of the invention, of its illustration by drawing or model, of its disclosure to others, of its completion, and of

the extent of its use. Each party has then to take the testimony of witnesses as to the points I have just mentioned. This evidence is carefully considered by the examiner of interferences, and he decides which party is the prior inventor. If the other applicant is not satisfied, he can appeal from this decision to the Board of Examiners-in-chief, and from them to the Commissioner, if necessary."

"Oh, what a bother," was Ham's comment. "I hope we sha'n't have to go through any such rigmarole as that."

"So do I," replied Mr. Stanwood.

The amendment, upon its receipt at the Patent Office, was sent to Division 12, and entered by the clerk in "case number 13,133." The assistant who had examined the application now looked carefully through the papers to see that all errors of spelling, etc., were corrected, made the proper indorsements on the file-wrapper and drawing to prepare the case for "issue," and wrote out for the use of the Government printer a "brief," indicating the matter to be inserted in the *Official Gazette*. The file was signed by the Primary Examiner in charge of Division 12, and, after another entry by the clerk in her journal, the papers were forwarded to the "Issue and Gazette Division"; the model being sent to the Model Halls for safe keeping until the patent should be issued.

The next communication from the office to Ham was in the following form:

Issue Division. All communications should be addressed to "The Commissioner of Patents, Washington, D. C."

Serial No. 13,133.

DEPARTMENT OF THE INTERIOR,
U. S. PATENT OFFICE,

WASHINGTON, D. C., July 21, 1880.

H. ESTABROOK, care of Joseph Stanwood, Brunswick, Maine.

SIR: Your application for a Patent for an Improvement in combined Can-Opener and Corkscrew, filed June 30, 1880, has been examined and allowed.

The final fee, Twenty Dollars, must be paid, and the Letters Patent bear date as of a day, not later than six months from the time of this present notice of allowance.

If the final fee is not paid within that period, the patent will be withheld, and your only relief will be by a renewal of the application, with additional fees, under the provisions of Section 4897, Revised Statutes. The office aims to deliver patents upon the day of their date, and on which their term begins to run: but to do this properly, applicants will be expected to pay their final fees at least twenty days prior to the conclusion of the six months allowed them by law. The printing, photo-lithographing, and engrossing of the several patent parts, preparatory to final signing and sealing, will consume the intervening time, and such work will not be done until after payment of the necessary fees.

When you send the final fee, you will also send, distinctly and plainly written, the name of the inventor and title of invention as above given, date of allowance (which is the date of this circular), date of filing, and, if assigned, the names of the assignees.

If you desire to have the patent issue to assignees, an assignment containing a request to that effect, together with the fee for recording the same, must be filed in this Office on or before the date of payment of final fee.

Additional copies of specifications and drawings will be charged for at the following rates: Single copies, uncertified, 25 cents;

twenty copies or more, 10 cents each. The money should accompany the order.

The within title is that given by the Examiner in charge, as most appropriate to your invention. Should you desire a change in the same, satisfactory reasons must be given therefor on or before the payment of the final fee.

In remitting the final fee, give the serial number at the head of this notice.

Very respectfully,

E. M. MARBLE,
Commissioner of Patents.

A letter from Mr. Stanwood to Tom McAllister, reminding him of his promise to furnish all the money necessary in the prosecution of the application, was quickly responded to, and about four weeks later, a heavy document, resplendent with blue ribbons and red seals, was placed in the hands of the delighted young patentee. The patent was a steel-engraved form printed on parchment, and filled in by an expert penman. It bore at the top a view of the Patent Office, and was in the following language:

UNITED STATES OF AMERICA.
No. 231,213.

TO ALL TO WHOM THESE PRESENTS SHALL COME:

WHEREAS, Hamilton Estabrook, of Brunswick, Maine, has presented to the Commissioner of Patents a petition praying for the grant of Letters Patent for an alleged new and useful improvement in combined Can-Opener and Corkscrew, a description of which invention is contained in the Specification, of which a copy is hereto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided, and

WHEREAS, upon due examination made, the said Claimant is adjudged to be justly entitled to a patent under the law,

Now, therefore, these LETTERS PATENT are to grant unto the said *Hamilton Estabrook*, his heirs and assigns, for the term of seventeen years, from the seventeenth day of August, one thousand eight hundred and eighty, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the PATENT OFFICE to be affixed at the City of Washington, this seventeenth day of August, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the United States of America the one hundred and fifth.

A. BELL,

Acting Secretary of the Interior.

Countersigned:

E. M. MARBLE,
Commissioner of Patents.

This was accompanied by a photo-lithograph of the drawing, and a printed copy of the specification.

Ham turned the crisp leaves back and forth with intense satisfaction.

"What will mother say now?" he proudly exclaimed. "I rather think she will have to confess that she's mistaken about inventions not being good for anything."

"Have you any plans as to selling the patent or manufacturing your invention?" asked Mr. Stanwood.

"Why, no," replied Ham, slowly. "I had n't gone so far as to lay any plans. What would you do about it, if you were in my place?"

The lawyer smiled good-naturedly. "Of course you are aware, my boy, that advice is a costly luxury when given by one of my profession," he said. "But you are quite welcome to any stray grains of wisdom which I may be able to offer. It seems to me that Tom McAllister is in a better position to dispose of it than you are; besides, Tom is personally interested in the matter, and will naturally be on the look-out for some way to dispose of it, and get his money back. Shall I write to him?"

"Yes, if you please," replied Ham; and he hurried off to display to the admiring home-circle the magic document which was to make the family's fortune.

The days lengthened into weeks, and the short, warm summer days gave place to the cold weather of fall. Expectation deepened into anxiety, and the flush of success gave way to the seriousness of uneasy misgiving. Tom's letters were not encouraging. "So many patents in the market," he wrote, "that there seems to be no chance for a good sale." "Manufacturers say there is no demand for such an article." "Season is over now, and there is no particular reason for making arrangements for next year just at present," and so on. Ham's face grew longer and longer as he read these discouraging epistles, and he found little consolation in his studies. The thought of the possibility that he might fail to carry out his cherished plan of going to college seemed to take away the old zest in his work and the greatest incentive to duty.

"It never rains but it pours," says the homely adage, and Ham was grimly reminded of this one day when he came home and found his strong, cheery father lying white and faint upon the bed, while the doctor and Mrs. Estabrook worked quietly and busily to relieve his sufferings. "An accident at the mill," they said; and Ham had little more time for meditation until the cool night-breezes brought the needed sleep to the patient, and a respite to the tired attendants.

"It's all up with me now," soliloquized the boy, as he tumbled into bed. "I've got to give up college. Poor old father! I'd give up twenty colleges, rather than have him laid up in this way. Well—let's see——" and he thought over his new-formed plans until he fell asleep. The result was, that he left school, and by a determined effort succeeded in impressing upon the mill owners the straits into which the accident had thrown his father's family, and the justice of Ham's request to be given a situation in which he could earn something; enough at least to keep from their door the distress for which the mill owners were responsible by their neglect in not taking sufficient precaution against the accident.

"We have a little something to give thanks for, next Thursday," said Ham to his mother, after a satisfactory interview with the mill superintendent, and the promise of fifty dollars a month for his services.

"Oh, yes," responded his mother, cheerfully. "I've never seen a Thanksgiving-day yet, but what there was some blessing to be remembered in the past year. The only thing I feel badly about is the money you got Tom McAllister to spend on that invention of yours. I shall always feel as if that was a debt."

"But it was Tom's own offer," broke in Ham; "he went into it with his eyes open."

"No matter," replied his mother; "I can't help feeling under an obligation to him so long as he has n't got his money back."

"We'll see, Mother," cried Ham, with an attempt at bravery. "Perhaps that can-opener will open a pot of gold for us some day, yet; who knows?"

"I don't, for one," was Mrs. Estabrook's answer, with a deprecatory shake of her head.

As Ham passed the post-office the next morning, the postmaster came out, locking the door behind him.

"By the way," he exclaimed, "seems to me I remember seeing something of yours—guess I'll have to get it for you," he added, laughingly, as he fumbled for his keys.

Ham lingered at the door while the man good-naturedly ran over the letters in the dim light of the shuttered room. "Here it is," he said, presently, and handed the boy a letter upon which appeared the familiar handwriting of Tom McAllister.

"Another wail, I suppose," muttered Ham, thrusting the letter into his pocket. "I'll wait till I get home before I open it. It's too cold to stand here and read unwelcome news."

It was not until the little family were gathered round the table, with Mr. Estabrook comfortably bolstered up on the lounge near the stove, that Ham remembered his letter.

"Had a note from Tom to-day," he remarked, as he opened it, "and entirely forgot to read it. Wonder what the matter is now. Hullo! Great Scott! Sold! Hurrah!"—the boy fairly shouted, staring at the letter with wide-open eyes.

"My son!" cautioned Mrs. Estabrook, "you must——"

"Yes, I know," interrupted Ham; "but just listen:

"DEAR HAM: I can sell the patent to a Worcester man who has a little spare capital and wants some novelty to work up for the hardware trade. He gives you a choice of twenty per cent. royalty on actual sales for three years, or two thousand dollars cash. I

advise you to accept the latter. It is not very much, but I think you would do well to take him up; otherwise there will probably be little chance of disposing of the patent until Spring. Answer at once.

Yours,
TOM McALLISTER.

"There! Have n't I a right to shout at such a letter as that?"

"You have, indeed," answered his mother, heartily. "Ham, I'm sorry for all I said about patents and inventions. That money will be a godsend to us this winter. I was worrying dreadfully to think how we should ever manage through the next six months!"

"And I won't have to give up college, after all," exclaimed Ham, joyfully. "Two thousand dollars! Why, even after I have given Tom McAllister his share, I shall have enough left to keep us until father gets well again, and then to go through college!"

"This is truly a Thanksgiving-day," said Mrs. Estabrook. "I shall always remember this whenever I feel discouraged hereafter. And Ham," she continued, "if I ever again make any more objections to one of your inventions, you just say 'Can-opener!'"

THE BALLAD OF THE RUBBER-PLANT AND THE PALM.

BY ALICE WELLINGTON ROLLINS.

A RUBBER-PLANT and a small Palm stood
Upon a parlor floor.
From either side the fire-place
They scanned each other o'er.



"What do you rub?" the small Palm asked
His statelier neighbor tall.

"Alas!" the Rubber-plant replied,
"I can not rub at all.

"If I had hands, like yours," he said,
As wistfully he eyed
His smaller neighbor's pretty palms
With fingers opened wide,

"Then I could rub!"—"And yet," replied
The little Palm, "you see,
Though I have hands, I can not rub,
And that 's the rub, with me.

"I wonder why it 's always so:
That something we have got
Seems never quite complete to be,
Without what we have not.

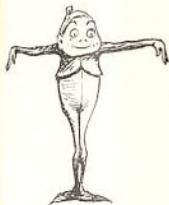
"I've often longed to rub my hands
With glee, here in my tub;
And you, no doubt, have often wished
You had some hands to rub.

"Now, if you were I, or I were you,—
No, that 's not right, I see,—
But if you *and* I, were you *or* I,
What a fine plant we should be!"

Still, they did as all good plants should—
Kept green all winter long;
So no one ever knew or guessed
That anything was wrong.

THE BROWNIES IN THE ACADEMY.

BY PALMER COX.



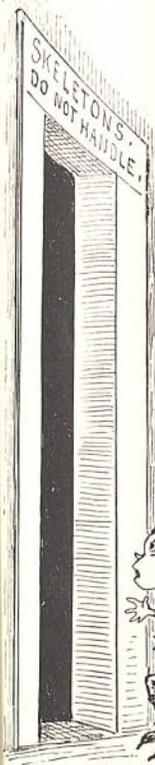
THE Brownies once with
capers spry
To an Academy drew nigh,
Which, founded by a gener-
ous hand,
Spread light and learning
through the land.

The students, by ambition fired,
And men of science had retired ;
So Brownies, through their mystic power,
Soon took advantage of the hour.

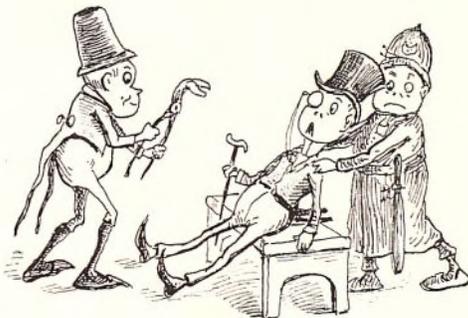
Ere long a door was open swung,
To show some skeletons that hung
From hook and peg, which caused a shout
Of fear to rise from those about.
Said one: "Thus Science works its way
Through old remains from day to day ;
And those who during life could find

No time, perhaps, to aid
mankind,
May, after all, in some
such place
For years assist the hu-
man race
By giving students, as
you see,
Some knowledge of An-
atomy."

A battery was next dis-
played,
And soon experiments
were made ;
Electric currents were
applied



To meadow-frogs they found inside,
Which sage professors, nights and days,
Had gathered up, in various ways,
And thought the captives safe to keep
For operations dark and deep.
Now on the table to and fro
Tripped frogs on light fantastic toe,
While ranged around with fingers spread,
And eyes protruding from each head,
In wild amazement and delight
The Brownies viewed the novel sight.



To making pills some turned the mind,
While some to Dentistry inclined,
And aching teeth, both small and large,
Were there extracted free of charge.
More gazed where Phrenologic charts
Showed heads partitioned off in parts.
Said one: "Let others knowledge gain
Through which to conquer ache and pain,
But by these charts I 'll do my best
To learn where Fancy makes her nest,
And hatches notions, day and night,
To fill the millions with delight."

Another cried, as he surveyed
The bumps that were so well arrayed :
"These heads exhibit, full and clear,
Which one to love and whom to fear ;
Who is with noble thoughts inspired,
And who with hate or envy fired ;
The man as timid as the hare,
The man destructive as the bear.
While choosing partners, one may find
It well to keep these charts in mind."

A microscope at length they found ;
And next, the Brownies gathered round



A stereopticon machine
That cast its rays
upon a screen.
A thousand times it
magnified,
Till, stretching out
on every side,
An object large and
larger spread,
And filled the gaz-
ing group with
dread.

The locust, beetle, and the bee
Soon gained proportions strange to see,
And seemed like monsters close at hand
To put an end to
all the band.

At other times,
all breathless
grouped
O'er crucibles,
the Brownies
stooped
To separate, with
greatest skill,
The grains which
cure from those
that kill;



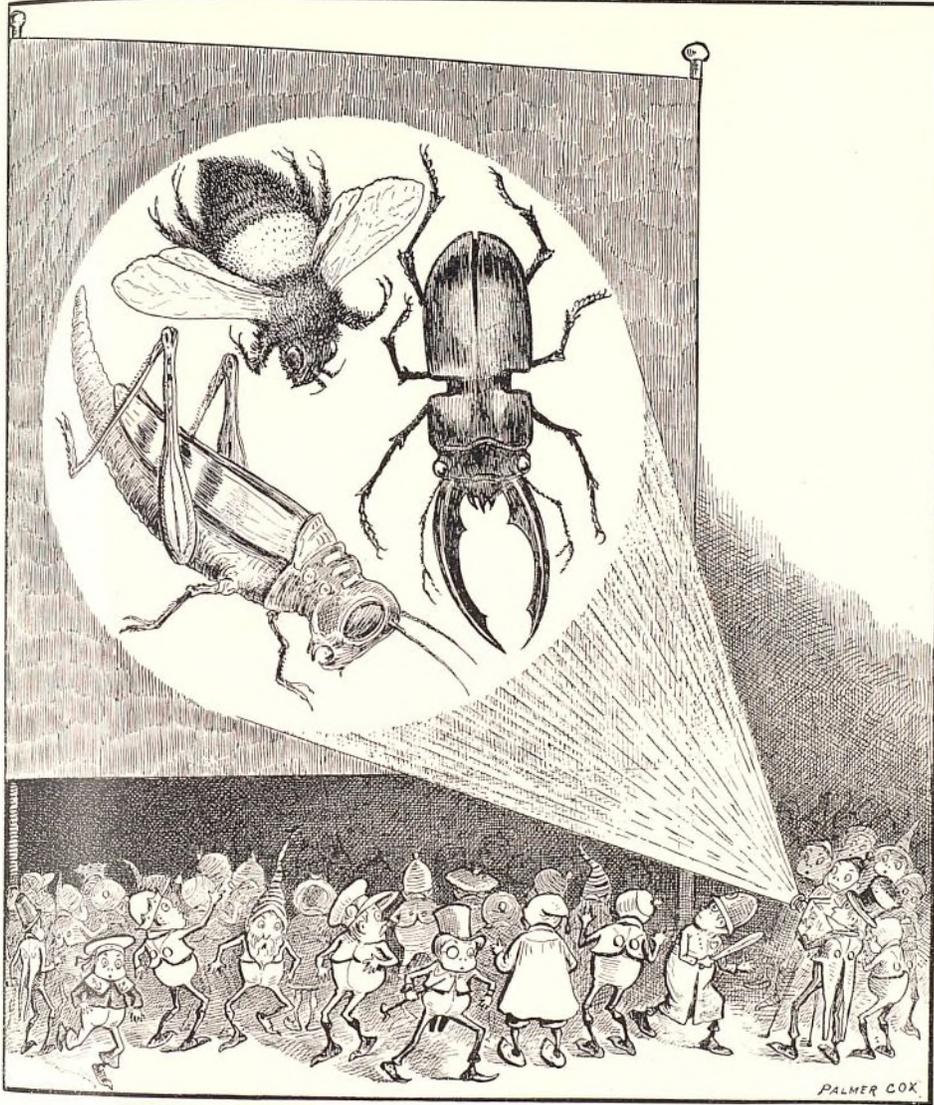
While burning acids, blazes blue,
And odors strong confused the crew.



No careless study satisfies
If one would to distinction rise;
The minds that shed from pole to pole
The light of years, as round we roll,
Are first enriched through patient toil,
And kindled by the midnight oil."

Thus spicing logic with a joke,
They chatted on till morning broke;
And then with wild and rapid race
The Brownie band forsook the place.





"THEY SEEMED LIKE MONSTERS CLOSE AT HAND TO PUT AN END TO ALL THE BAND."



THE BROWNIES AND THE RETORT.



A BOTTLE THAT SURPRISES TWO BROWNIES.



II.

Rub-a-dub-dub,
In the scalding tub!

Paddle and poke with the lifting stick,
Poke and paddle and stir them quick;
Rub-a-dub-dub, we gleefully sing,
With a rub-a-dub-dub, and a wring-a-wring-wring.

III.

Rub-a-dub-dub,
In the rinsing tub!

Grandmothers rinsed in the running brook,
Dipped and squeezed them, and wrung and shook;
Rub-a-dub-dub, we gleefully sing,
With a rub-a-dub-dub, and a wring-a-wring-wring.

WHAT THE BUTCHER BOY SAID.

BY JULIAN RALPH.

II.

THE question concerning the butcher boy, the dead pigeon, and the gardener, which was put to the readers of the ST. NICHOLAS for January, has not been exactly solved by any of the guesses at what the boy said, although we have received answers from many young friends, two or three of whom have made guesses which differ only in detail from what was really said. A list of the names of those who have sent replies may be found in the "Letter-box" of this number of the magazine.

It will be remembered that the pigeons were seen sunning themselves on the barn in a wealthy man's house-yard, which was presided over by a gardener of ferocious aspect and terrible reputation among the boys of that neighborhood. The butcher boy was seen to approach on a neighboring sidewalk; to discover the pretty birds; to drop his basket; to draw his bean-shooter, and to kill one of the birds. After that, he walked across the street and rattled the garden-gate. The ferocious gardener came, and, after listening to what the boy said, went away and, bringing the dead pigeon, presented it to the boy, who walked off whistling light-heartedly.

Subsequent inquiry has shown that the boy was in one important respect better than boys usually are who delight in frightening, maiming, or killing

helpless creatures, and that the case was otherwise peculiar.

"Mister," said the boy to the gardener, "I have hurt one of your pigeons. I did not mean to. I fired my bean-shooter, and thought it would only scare them; but one pigeon fell, and I am afraid it is killed. I have six dollars saved up, and I will pay for it gladly, if you will take the money."

"Bless me!" exclaimed the gardener; "you are the first boy I ever saw who did not take to his heels when he had done wrong. The pigeons, though they belong to us, are great nuisances; and if you had killed them all, it would have pleased my boss. But, my boy, killing and hurting helpless things, because they are smaller and weaker than you are, is bad business; and if you had not been so honest, I would have thought you had a wicked heart. Let me give you the pigeon to take home." He went and got the pigeon. "There, now; take it, and show it to your mother, and see what she'll say. See if she does not tell you to throw away that bean-shooter. It is not a fit plaything for an honest lad."

One moral that may be drawn from this tale is, that the fierceness of a gardener seems to depend upon the consciences, rather than the eyes, of the boys who look upon him.

Perhaps other morals may be found in it.

NANNY'S SKETCHING.

BY ALICE P. CARTER.

STEALING out alone, demure and secret,
Feeling rather naughty, I'm afraid,—
Yes, I'm pretty sure she knows 't is naughty,—
Forth she goes, the cunning little maid.

Closely hugged beneath her tiny elbow,
Peeps a sketching-block of Sister Lou's;
Nanny thinks she, too, will be a "lartist,"
So she's toddling out to draw the "moos."

Pretty moo-cows! Nanny'll draw their leggies
And their tailies, and their hornies too,
Make a booful picture, all herselfie,
Sitting in the fields like Sister Lou.

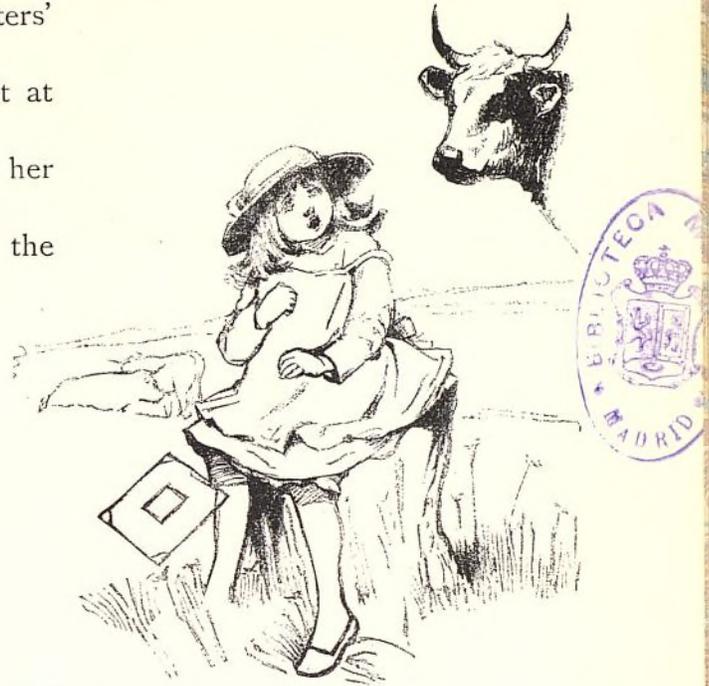
Down she sits, and, all absorbed, is working,
Drawing "booful pictures" on the block,



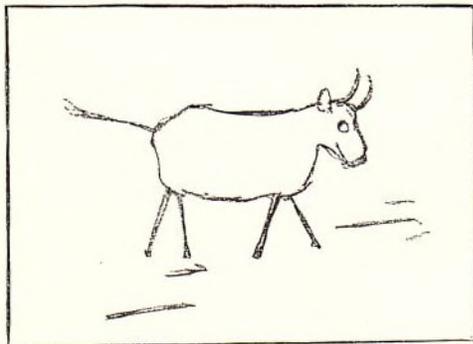
When a rumbling murmur close
beside her
Makes her turn her head with
sudden shock.

Right behind her stands a mon-
strous "moo-cow,"
Gazing at her with big, kindly
eyes,
As if so small a midget busy sketch-
ing
Filled her honest "cowship" with
surprise.

Maybe "moo" admires her sisters'
 portraits,
 But Nanny does not fancy that at
 all.
 Off she runs, and never stops her
 screaming
 Till she is safe behind the
 garden-wall.



Sister Lou had not the heart
 to scold her,
 When Nannie came back
 crying with affright,
 But the heads and eyes of low-
 ing "moo-cows"
 Haunted little sister's dreams
 that night.



SKETCHED FROM LIFE.



JACK-IN-THE-PULPIT.

APRIL is here !

There 's a song in the maple, thrilling and new ;
 There 's a flash of wings of the heavens' own hue ;
 There 's a veil of green on the nearer hills ;
 There 's a burst of rapture in woodland rills ;
 There are stars in the meadow dropped here and
 there ;
 There 's a breath of arbutus in the air ;
 There 's a dash of rain, as if flung in jest ;
 There 's an arch of color spanning the west ;
 April is here !

Very true, April *is* here,—that is to say, she is due whenever the April St. NICHOLAS is ready to appear ; and she is apt to follow out the general plan described so pleasantly by Emma C. Dowd, in the verse I have now given you.

HOW SHALL WE SAY "ARBUSUS"?

AND, by the way, speaking of "the breath of arbutus," your friend Maria L. Owen, of Springfield, requests me to mention here, that you 'll oblige her very much if, when speaking of that beautiful, earliest, spring wildflower, the trailing arbutus, you will put the accent on the first syllable of the word, where it belongs, and not on the second, where it does not belong. She says this may sound strange to you at first, because you probably have become used to hearing the word pronounced *arbutus*, just as you may have heard *clematis* pronounced *clematis*. But as soon as your ear becomes accustomed to the right accent, she is sure you will think *arbutus* and *clematis* quite as pretty sounds as *arbutus* and *clematis*. She admits, however, that you will find this practice rather perplexing when you meet with the word in the rhymes of American writers, though all over England in prose and verse *arbutus* holds its own. Further, she sends

you two extracts from American and two from English poets (Mrs. Browning and William Cowper), so that you may note for yourselves the pronunciation of the disputed word.

"Whisper on, glad girls and boys ;
 Sealed the fragrant rosy wells ;
 You and spring are safe alike —
 Never the arbutus tells." [H. H.

"The wild arbutus, flushed with haste,
 Trails close, to make appeal." [LUCY LARCOM.

— "Over which you saw
 The irregular line of elms by the deep lane,
 Which stopped the grounds and dammed the
 overflow
 Of arbutus and laurel." [E. B. BROWNING.

"Glowing bright,
 Beneath, the various foliage wildly spreads,
 The arbutus, and rears his scarlet fruit." [COWPER.

Miss Owen repeats that *arbutus* is wrong, though a thousand American tongues soon will make the air resound with it. In proof, she quotes Virgil as classical authority, and for the present day the late Dr. Asa Gray, and Dr. Goodale of Cambridge.

Webster's Unabridged, the lady says in effect, used to give the pronunciation *arbutus*, but it reformed in 1873, and has insisted ever since upon throwing the accent on the first syllable. The Imperial Dictionary gives only *arbutus*, though Worcester's Dictionary ventures to stand up for the old *arbutus*.

There! my chicks, I have delivered the message — and I never could have done it but for the help of the dear Little School-ma'am. Settle the matter among yourselves and your elders. Meantime, safe under the snow, the beautiful flower is tinting its new buds among its stiff old leaves of last year, caring little what folk may call it, so that they only welcome and enjoy its fragrant loveliness.

THOSE BIRD-MOTHERS AGAIN.

STIRLING, ILL.
 DEAR JACK: I have long been a reader of St. NICHOLAS, and so I am very much interested in its communications. Our daily *Evening Journal* denies the possibility of such instances as your correspondents recently gave you. Its explanation of mother-birds killing their imprisoned young is as follows:

"Old birds have a spite against young ones, — even the sires of some families will kill their offspring; and those captive birds known to be killed by grown-up birds of their kind were not killed by their mothers at all, but by any that chanced to come upon them, and agreeably to a practice that is not confined to birds, even. These same birds would have killed them in their nests, if their guardians had been away."

Now, my mamma thinks the assertion is too sweeping, and she thinks the writer of the letter in St. NICHOLAS is correct, as, during her own girlhood, and while living in Schuylkill County, Pa., a similar circumstance came under her own observation.

One summer afternoon, after a violent thunderstorm, she found two young robins that had been blown out of their nest, and the parent birds were flying about, crying mournfully. She took the young ones, put them in a cage, and left it within reach of the parents. She went away, but watched them from a window. When the old birds discovered their young were prisoners, they flew away, but, returning in a short time, fed them, continuing to do so until

rightfall. The next morning they renewed their care, but before evening both birds lay dead in the cage. Her mother (my grandmother) said the parents gave their young something to poison them. A devoted friend of St. NICHOLAS,

CAROL R. S.—

NATURAL BRIDGE, VIRGINIA, Dec. 30, 1887.

DEAR JACK-IN-THE-PULPIT: I have just read a letter in your last issue entitled "Cat-bird Parents." I must tell you that my experience in raising the young birds has been very different from Miss Torbert's. I have had a number of them, invariably too young to fly, and only once in the case of a bird whose leg had been broken, and which I finally chloroformed did I fail to see them reach their full development, and fly from the open cage-door. The first bird I raised, I lodged comfortably in a large wire cage, and placed it in a small room opening from a large one. Several people were sitting in the large room, when two grown cat-birds flew in, and straight through to my founding. We were quiet and awaited further developments. Presently the male flew back, and out, but soon returned with a limp worm, which it fed to the captive through the cage-bars. The mother-bird went out foraging. Thus did they relieve each other for days, until the young bird could pick up its food, one of the parents remaining at the cage all day. They would let me sit close to them while they tended their baby, sometimes even alighting in my lap.

Dear, brave little birds! Who shall say what resolution and courage it took for them first to enter that room! After that I always left the little birds out on a shaded porch. I also put a saucer of potato and yolk of egg mixed (both hard-boiled) near the cage, and the birds would feed the captive with this. They would even carry some of the food away, for the benefit of the rest of their family, I have no doubt. It has been my experience that cat-birds show more intelligence, and are more easily tamed, than red-birds or mocking-birds. Their song is very sweet. So you see, dear Jack, that the cat-birds of Virginia must not fall under the ban which pronounces their Northern cousins so cruel, or so wise, which is it? I hardly can claim for my birds that they knew I intended letting the little ones loose. I fear I have written at too great length, but I wished to vindicate our cat-birds.

Yours sincerely, K. S. P.—

LET us thank both of these correspondents, my people, and hope, until observation enables us to be sure of it, that the birds of our friend K. S. P. have a right to be considered fair average examples of bird morality, intelligence, and kindness.

THE SUN AS A FIRE-EXTINGUISHER.

THE dear Little School-ma'am tells me that as soon as the wintry cold begins to wane and the sunlight grows warmer, house-fires are apt to get low and dull, and for this reason persons say "the sun puts the fire out." Sometimes the children ask her to explain this queer conduct on the part of the sun, and then she tells them something like this:

During the sunniest part of the day we are apt to neglect our fires and to cease supplying fresh fuel. Meantime the sun's rays warm the air and rarely it until it is as warm and thin as the air in the chimney that has been heated by the fire. Then the draught ceases and the fire gets lower and lower. But the Little School-ma'am opens a door, or a window, and the fresh, cool air sends the warm air of the room up the chimney in a hurry, and the fire brightens.

And the little lady reminds them of another fact: If the sunshine falls directly upon the fire, it is at least a rival light, and not so well calculated to show the glow of the coals as a flattering shadow would be.

THE JACK-SCREW AND OTHER JACKS.

L. P. WARREN, Florence Henry, E. R. H. and several others have sent letters placing that loose screw we talked about in January. They say: "The jack-screw is a portable machine for raising heavy weights short distances."

These correspondents also suggest more Jacks, such as Jack-block, Jack-boots, Jackdaw, Jack-plane, Jack-saw, Jack-pudding, Jackanapes; and Florence quotes the Mother-Goose rhyme:

"Handy, spandy, Jack-a-dandy,
Loves plum-cake and sugar-candy."

"WHY HARTSHORN?" ANSWERED.

OF the many replies that have come to the Little School-ma'am's query, which I gave you in January last, Edward C. D.'s is the best and shortest:

Ans.: "Because it originally was made by distillation from deer's (or harts') horn."

Every hundred pounds of deer's or any horn is, I am told, capable of producing sixteen pounds of ammonia, that pungent gas with which you all are familiar and which gives smelling-salts, or hartshorn, its peculiar odor.

HOW IS THAT?

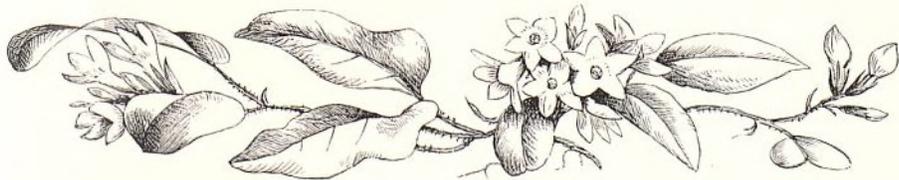
ATLANTA, GA.

DEAR JACK: I am a school teacher, and one of my little puzzlers puzzled me recently with this question: "Is that as that is a preposition the same as as that as that is a conjunction?" I answered indignantly: "Is that that that is a conjunction that same that that that is that is a pronoun?" Thinking that perhaps you or the Little School-ma'am might help out me and the babies, I refer the matter to you.

Yours truly,
ANGUS E. ORR.

I showed this letter to the dear Little School-ma'am this morning and she said: "Say to Mr. Orr that that that that that that is that that he mentions is as confusing as as as a preposition and as as as a conjunction (though to my mind as is as useful as a conjunction as as is as a preposition) and that I beg to be excused solely on that ground."

Who can correctly and with the right emphasis read aloud the Little School-ma'am's reply?



TRAILING ARBUTUS.

HANDIWORK FOR GIRLS.

BY ELLA S. WELCH.

WE hope many girls will be glad of these suggestions for simple pieces of fancy work. While all of the articles described may not be entirely new, yet it is believed that each reader can find some novel trifle which will repay the slight trouble of making it. The directions are plain and easy to follow; and although both materials and colors are specified, individual taste may of course be freely exercised in choosing other suitable fabrics, or in varying the colors and designs here given.

LITTLE BROOMS.

A SMALL broom may be so trimmed as to be an ornament when

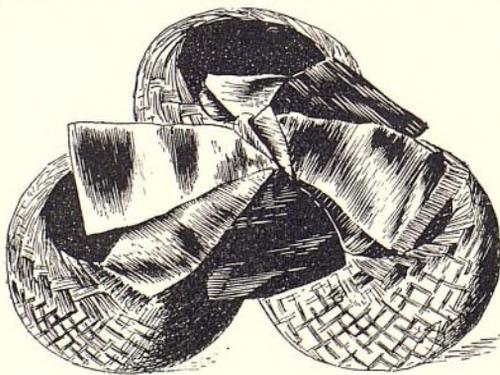


standing by the fireplace in readiness to keep the hearth or floor tidy. Cover the upper half of the broom part with dark-brown cloth; first embroidering this cover in outline,—a cob-web makes a very appropriate design. If you wish to make two, the other may be of peacock-blue felt, the embroidery being a few long stitches of crewels of various colors.

The handles should be bronzed or gilded; or, they may be covered by a strip of cloth wound in a tight spiral around the wood and fastened at the top by some sort of ornamental tack.

TRIPLE BASKET.

THIS is for the dressing-table, and is convenient as a temporary receptacle for jewelry, or similar small articles. Any small baskets may be used; those shown in the picture cost four cents each at a "Japanese store." They may be gilded, bronzed, painted, or left as bought, according to taste. A pad should be tacked in the bottom of the baskets, and is thus made: Cut a piece of cotton-bating to fit, and sprinkle it freely with sachet powder. Cover the cotton with plush or velvet cut a little larger, fastening the edges beneath the cotton by stitching them either to the cotton or to each



other. Fasten the pads in the bottom of the baskets by means of a stitch or two.

Sew the three baskets together, as indicated in the picture, taking care to make them stand evenly. Cover the joinings with a bow consisting of seven loops and ends.

Shrimp-pink and Nile-green form a pretty combination for the bow, which will require about half a yard of each color, if ribbon an inch and a half in width is used.

BEAN-BAG GAME.

THE illustration represents something new; a "Home-made Bean-bag Game," so named because all the materials needed for it can be found in almost any home.

The ring can be made of a piece of a barrel-hoop; or an old iron hoop can be used. It should be about sixteen inches in diameter, but a difference of an inch one way or the other is not important. Wind this with a strip of turkey-red, or some bright-colored ma-



terial; suspend a sleigh-bell, or small table-bell, on a piece of ribbon in the center; use a loop of the same ribbon, slipped through a small metal ring, by which the hoop is suspended in a doorway; the ends forming a bow on the large ring, as seen in the picture.

The bags should be four inches square; and only about three-quarters filled with small, white beans.

Almost any kind of material can be used for the bags; cretonne, awning-material, or ticking will answer the purpose. It is an improvement to cover the bags with soft silks of various colors.

The object of the game is to see who, in pitching the bags through the hoop, can strike the bell the greatest number of times in twelve trials. Variations of the game may readily be devised. The distance from the ring at which players should stand, and the height at which the ring is hung, will depend on the average size of the players.

The ring should be suspended from a hook screwed into the top of

the door-casing. Tacks in each side of the doorway, with fine cords running from them to each side of the ring, are often found useful to keep the ring from turning and to hold it in place.

Sometimes the game is made more interesting by a pretty little prize given to the most successful player, and a "booby-prize"—some funny article, such as a fool's cap or a toy donkey—may be awarded to the one making the lowest count.

BEAD CURTAINS.

Bead curtains are easily made by little girls to hang in the doorways of their baby-houses.

Directions: First, mark off on a piece of strong tape, of any required color, the exact width of your doorway. For convenience, tack this tape along the edge of a pine table or chair-back or shelf.

Next, within this marked-off space, and side by side, hang very strong linen threads, all of the same length, and each strung with beads. The length of the threads must, of course, depend upon the desired length of the curtain. String each thread with beads before you fasten it to the tape, and be sure that the first bead, which should be a large one, is securely fastened, as it will come at the bottom when your curtain is hung. When all the beaded threads are strongly fastened upon the tape, you have only to hem the ends of the tape at the two marked places and hang it up in the little doorway.

In threading the beads, do not put so many upon the string that it will be too stiff to swing freely; and, above all, exercise your best taste in assorting the colors and sizes of the beads. It is not difficult so to arrange them that very pretty patterns will appear upon the curtain.

The writer knows a bright little girl who, during a slight but rather long illness, made her mother a beautiful bead curtain for a "grown-up" doorway, as she called it. Her mother had bought the beads at wholesale.

Other articles may be used with or instead of beads; such as muskmelon, watermelon, or other seeds, or bits of bamboo from worn-out or broken Japanese bead-curtains. The wooden beads that were lately used in trimming dresses and bonnets—but that are now out of fashion, and probably to be bought very cheaply—would be effective. Even pop-corn first dipped in gum shellac dissolved in alcohol, and when dry strung instead of beads, makes a very pretty curtain, if one is willing to wash off the dust occasionally.

"MENAGERIE" BLANKET.

This cloth is intended to spread on the floor for baby to play upon and for his amusement. It can be of gray linen, felt, or heavy flannel.



The outline of the animals may be copied from books or papers by the aid of transfer paper, and worked in outline-stitch with red

and blue working cotton. If the blanket be made of linen, bind it around the edge with red braid; if made of flannel, it will be prettier to pink the edges; then stitch a band of contrasting flannel underneath the gray, so that the pinked edge will show against it.

FANCY-WORK APRON.

This style of fancy-work apron, or "art" apron, as it is sometimes termed, will be found particularly useful on account of the capacious



pocket. It may be made in cream-colored grenadine or pongee silk. The design on the pocket is worked in colored wash-silks; the cob-web part, in dark gray; the letters, in cardinal; and the figure, in harmonious shades of olive and light blue. All hems are feather-stitched with cardinal. Satin bows of the same color as that used in the feather-stitching are fastened at each side of the pocket; and a piece of cardinal satin ribbon is run through the hem at the waist, and the apron is shirred over this, to give fullness. The ribbon must be long enough to tie in a pretty bow at one side.

With a few necessary modifications, this apron is well adapted for wearing with a tennis-costume, and then the tennis-balls can be kept in the pocket.

The designs should be changed accordingly. A racket might be embroidered in outline upon the pocket.

If found best, either for tennis or for fancy-work, divisions in the pocket can be made by stitching perpendicular seams at either regular or unequal distances, as the purpose may require.

HANDLES FOR PACKAGES.

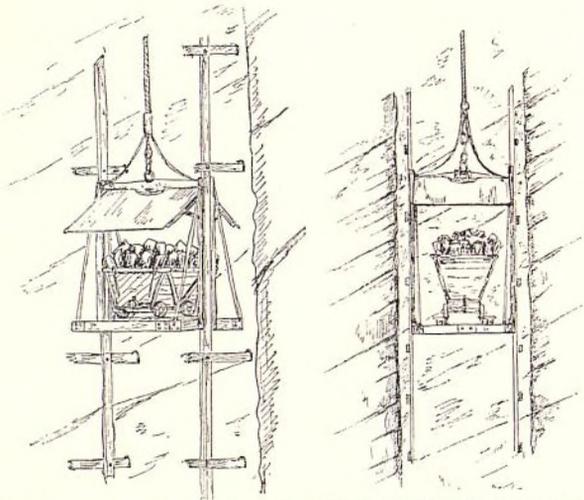
THESE are made of the common wooden handles sometimes given away to purchasers by the large stores. The metal ends or hooks must be painted with several coats of bronze, or gilding-liquid. The handle is neatly covered with plush or velvet, which is glued on very smoothly, the edges meeting but not overlapping. One of these handles may be completed in twenty minutes, and no one will regret the moments so spent.

THE LETTER-BOX.

THE answers to the question, "What did the butcher boy say?" have been ingenious and amusing, but can be arranged into a few general classes: 1. That the butcher boy made up a story to account for the dead bird, without blaming himself. 2. That he frankly confessed and was forgiven. 3. That he shot the bird as a dainty for a sick mother or sister. 4. That the gardener was threatened or bribed. 5. That he asked for the body to have it stuffed, or buried, or to buy a bird like it, to replace the dead one.

The best answer received is from L. R. Gillam, and we are happy to record the names of the young friends who have also sent letters: Frank C. R., Bessie Gardner, Willie M. Vermilye, Amy A. C., John A. Milligan, Mildred Foote, Herbert D. Murray, Louisa E. Marburg, Clara P. Curtiss, Frank H. Hamilton, C. Marion Bush, Marie Buchanan, Clarence and Annis, May, Maggie Schenck, Daisy Thorne, M. R. Chase, E. Runcie, Janet Williams, B. de L., Frank D. W., R. R. Kendall, Cyrus H. Adams, Jr., Francis Beardmore, Ethelinda B. Judson, Grace Patterson, Dottie, and Rowland D. Lanz.

EXPLANATORY NOTES ON "EDWARD ATHOV."



NOTE 1. SKETCHES, SHOWING "CARRIAGES," OR MINE ELEVATORS, IN A SHAFT.

NOTE 2. "The coal is high."

Seams of coal vary greatly in thickness. In a seam having an average thickness of between six and seven feet, there will occur many portions where it may increase in thickness to eleven or twelve feet. At such places it is called "high coal," and as explosive gases found in coal-mines are lighter than air, these high places, when the coal is removed, become filled with gas, which the air-current—without some assistance—can not dislodge. Men go into such "high places," and make a great commotion in the air by whirling their coats rapidly above their heads. The eddies of air extend into the high places and push the gas down into the main current.

NOTE 3. "The great fan-wheel."

A ventilating fan, such as is used in coal-mines, is an enormous wheel, containing paddles, somewhat like the paddle-wheels of a river steamer, and placed over a shaft leading to the mine. The air enters at the center of the fan (at the axle), and is whirled outward by the rapid motion of the many paddles. If a fan is not inclosed, by a wood or an iron covering, it will simply whirl about a great quantity of air. By inclosing it, and having in the inclosure an opening like a chimney, the air is drawn out of the mine, and is forced through the chimney, thus creating an "air-current."

NOTE 4. "Gangway road."

In mines, all narrow passages through which men travel or air is directed, are called "headings." When two headings are driven one at the side of the other, the one used as a road for hauling coal is called the "gangway"; the other, used for directing the air-current, is called the "air-way." The words "heading road" and "gangway road" mean the same thing.

NOTE 5. "Brake-band."

Coal lies imbedded in the rocks forming hills, and hollows, and flat places,—just like hills, dales, and meadows on the surface. Where a gangway road runs up one of these underground hills and the loaded cars, running down, drag the empty cars up by means of a wire rope, this part of the gangway road is called a "plane." The machinery is very simple, consisting of a big wooden cylinder or drum, about which a long wire rope takes a few turns. The loaded cars, to which one end of the rope is fastened, are on the top of the hill, the empty cars are at the bottom, also fastened to the rope. The speed of the cars, as they rush over the plane, is regulated by a flat band of iron clasping the drum, called a "brake-band."

The tighter this band is squeezed about the drum, the slower will the drum turn, until it finally stops. The top of the hill is called the "head," and the bottom, the "foot," of the plane.

NOTE 6. "Colorless flies."

These flies are strange-looking insects. It may be that they are an open-air species changed in appearance by living in the dark,—as a blade of grass whitens when growing beneath a board. They have very large heads, and their enormous compound-eyes have a brilliant, red, opalescent glow. The bodies are almost colorless, and perfectly transparent. They are to be found in places where the current of fresh air is sluggish.

NOTE 7. "The rats bes gone, sir."

The old saying, "Rats desert a sinking ship," applies to the mines also. These rodents are very large, and become very tame—often sitting opposite a miner at lunch-time, and noisily scampering after the bit of meat or cheese he throws to them. When an accident, such as an explosion or a flooding, is about to happen, these animals seem to be aware of the coming danger. Threatened sections of the workings they desert—even going to the surface to secure safety, when necessary.

CHERRY GROVE, PA.

DEAR ST. NICHOLAS: I live in the oil regions of Western Pennsylvania. Oil was found in Cherry Grove township in the spring of 1881. The first well drilled was called the "Mystery," because very few people knew whether they had found petroleum oil or not. At last the secret was out. Oil was found, and people began to crowd in. They pump the well now.

Nearly everyone uses natural gas here. A great deal of excitement was caused, in the summer of 1881, by the burning of a flowing well, which flamed nearly a week. B. L. F.—

WASHINGTON, D. C.

DEAR ST. NICHOLAS: The public-school authorities of this city, having decided to establish cooking-schools, have employed teachers, and furnished two kitchens in different parts of the city, where the girl pupils may learn the art of cooking. Attendance is not compulsory, only those going who so desire. There are three classes of fifteen each, daily, the lesson lasting two hours. The kitchen where I attend is a moderately large room. A table covered with the oil-cloth—around which are arranged sixteen chairs—is in the center of the room. The shelves of a large dresser are filled with breakfast and dinner plates, knives, forks, and spoons. Cups are hung on little hooks. In the lower part are kept the sugar and flour. Pots and pans are near by. An ice-chest holds the butter, eggs, and milk. A small table, with dish-pan and tray, wash-stand, and cooking-range, where the kettle sings merrily, make this a complete kitchen.

The first duty of the young cooks is to wash their hands and put on their aprons. Then all gather round the table to copy the recipes as given by the teacher. Each pupil has a different portion of the

work to do,—some mixing, some kneading, some baking, and all under the teacher's direction. The old adage, "too many cooks spoil the broth," is here disproved; for although many have a finger in it, the result is delicious bread, biscuits, soup, and cookies, up to this date; with other good things to follow from future lessons. And then we have a jolly time eating what we have cooked.

ONE OF THE COOKS.

SAN DIEGO, CAL.

DEAR ST. NICHOLAS: Seeing so many nice letters in your "Letter-Box," I write my letter also.

The only thing that I can remember that is of any interest is Old San Diego, which I lately visited. I saw the two old mission bells (cast in 1832), "Don Juan," and, I believe the other was named, "Pedro." It was cracked, and when I slapped it with my hand, it sounded hoarse and low, but "Don Juan" sounded ringing and sharp. Each has "Ave Maria" in letters, almost erased, on the side. I'm sure, all of the boys who have read "Two Years Before the Mast," would like to see Old San Diego; but instead of galloping across on a broncho, as Mr. Dana did, they might ride over on the electric-motor road.

I have visited Lower California, too, and may pleasantly surprise some of our Eastern people by saying that it is a very pretty country, with fine mountains and bays and valleys. Before I saw it I thought (from the maps I had seen) that it was a desert.

I like Mr. E. W. Keable's pictures, and the expression he puts in his characters is so amusing. Mr. Birch's pictures are beautiful.

The winter out here is most pleasantly devoid of all cold; and a rain, a few days ago, made the grass very green (what grass there was), and in some gardens to-day I saw oranges and flowers growing nicely. Looking from the window, I see the bright sunshine, and there's a perfect mass of green trees, of all descriptions, outside. The bay sparkles away off, too, and it is as pleasant here in January as it is elsewhere in June. And one of the most pleasant features of to-day was the arrival of ST. NICHOLAS. I say, "Viva San Nicholas!" and, indeed, "so say we all of us."

Good-bye. A. B.—

MEMPHIS, TENN.

DEAR ST. NICHOLAS: For many years you have been a source of the greatest delight to me, and now I write to thank you and tell of the sunshine you have shed upon many, many hours of my life that would otherwise have been spent in loneliness and gloom. Good, kind Saint that you are, do you ever try to realize what a blessing you are to not only the hearty girls and boys, but also to those who, like myself, spend many days in being taught patience by the angel of pain?

And there are great numbers who owe you heartfelt thanks without knowing it. These are the guests of the Children's Christmas Club of our city; for you must know, dear Saint, that your suggestion to the children of putting some pleasure into the lives of the poor little unfortunates has not been made in vain. One of our wealthiest merchants undertook to help and guide the children, and under his assistance and direction they were enabled on Holy Innocents Day to give to the little ones a dinner and Christmas-tree such as they had never seen before.

For several days before the feast, clothing and fuel were given to those in want of it; and after dinner a paper sack was given each child, and they were told to fill it with whatever they liked. That it was greatly enjoyed was fully attested by the zeal with which the "three cheers for the president" of the club were given; and that its object was attained was satisfactorily proved by the accounts of numerous cases of relief, not only of the poor children, but also of their parents, in many cases.

I hope my letter is not too long, but on such a subject it is impossible to be brief. And now I must say good-bye, hoping that we shall shortly hear from all parts of the world of the success of the Children's Christmas Club.

NELL N.—

RUTLAND, VT.

DEAR ST. NICHOLAS: I think that "A Girls' Military Company," in the January number, was splendid, and I should have felt proud to have been one of those girls. I suppose the reason why I feel so through a girl is because I have been drilled in nearly the same way, only we drilled with tin pails and milking-stools instead of guns. There were thirty-two girls in the drill. It went under the name of "Dairy Maids' Drill." We had an excellent drill-master. Our costumes were not like those the girls wore from the design of Lieutenant Hamilton. Ours consisted of blue, buff, pink, and red skirts, which came to within seven inches from the floor, and white waists and black bodices. We gave an entertainment which occupied three evenings; the net proceeds were over three hundred dollars. I must close now, hoping my letter will not be too long and uninteresting for you to print.

Your devoted reader, CASSA.

GREENCASTLE, IND.

DEAR ST. NICHOLAS: The university mentioned by Lieutenant W. R. Hamilton, U. S. A., in his article in the January number, concerning "A Girls' Military Company," is De Pauw University. The Ladies' Drill Corps has now one hundred and seven members

enrolled. There is one "special" company of twenty-two uniformed young women, which gave an exhibition at the Military Fair given by the cadets.

Lieutenant Wm. T. May, U. S. A., is the present instructor of Military Science and Tactics in the university.

Yours truly,

A "CADET."

BANGOR, ME.

DEAR ST. NICHOLAS: We have taken you ever since you began, and could not live a month without you. I have one sister twenty-two, one fourteen, and I am eleven.

I made the "Babes in the Wood" game that was in the January number. We all enjoy playing the game very much. It is very hard to aim the arrows, and we get a great many "minuses." I made it to amuse my sister, who was getting well. Of course my favorite story is "Little Lord Fauntleroy," and I think "Sara Crewe" is very interesting.

Your constant reader, I. B. W.—

NEAR WALKER, MO.

DEAR ST. NICHOLAS: I am a little girl nine years old. An aunt of mine, in California, has sent you to my older sister for ten years. That was a year before I was born. She was six years old then, and we lived in Tennessee.

My brother Ernest's favorite story was "His One Fault." One day while the story was being printed he came in with a new number of ST. NICHOLAS, just as supper was ready, and wanted Mamma to read to him. When she said "wait," he just danced up and down in the dining-room door and said, "O Mamma, I am aching all over to hear it; I can't wait"; and he is a boy who thinks a great deal of his supper. Now, when a number comes with "Brownies" in it, we all shout, we are so glad. I am so glad that "Juan and Juanita" got home all right.

From your delighted little friend and reader, INA E. D.—

NEW ORLEANS, LA.

DEAR ST. NICHOLAS: We have welcomed you in our home for many past years, and I hope we will continue to welcome you for many years to come. I like your stories ever so much, and particularly liked "Little Lord Fauntleroy" and "Juan and Juanita." I am very much interested in "Sara Crewe," and every time Papa brings a ST. NICHOLAS home the little children crowd around me and beg me to read "Sara Crewe" aloud to them.

I have three sisters and three brothers. We have a pet pigeon, and its name is Midget. Whenever it is offended it struts like a young lord, and makes us all laugh very much. I read the "Letter-Box" every month, and it affords me much pleasure.

To-morrow is my birthday, and I will be thirteen years of age.

I like Miss L. M. Alcott's stories very much, and I hope she will contribute some more to the ST. NICHOLAS. I liked the article on "A Girls' Military Company" very much, and I hope that when I am larger I will have a chance to belong to that "Company," or one like it. My letter is too long, so I will stop.

Ever remaining your interested reader, C. E.—

OIL CITY, PA.

DEAR ST. NICHOLAS: I have taken you for two years, in November, and I think that "Juan and Juanita" is just a lovely story.

I have a pet dog, and every time I tell her to say her prayers she will jump up on a chair, put her paws upon the back of the chair, then put her head between her paws, and will not get up until I say "Amen." She is a water-spaniel.

I go to school every day, and am getting along very nicely.

I am a little girl twelve years old, and on my birthday I got a lovely bisque doll. Your loving little reader, LILLY L.—

QUINCY, ILL.

MY DEAR ST. NICHOLAS: Among your stories, I like "Three Miles High in a Balloon" very much; I suppose for the reason that I saw a man, last summer, jump from a balloon,—with the aid of a parachute. He made two jumps in this city; the first distance was 4500 feet, the second 7000 feet. The name of the aeronaut is T. S. Baldwin. We young people are very much interested in him, and are proud of him, for this place is his home.

I dearly love your magazine, and hope to have it to read for many years. Your admirer and well-wisher, ELSA C.—

MY DEAR ST. NICHOLAS: I am a little French girl, living in America. I have been studying the English language for a very long time. Crossing the ocean, we had a terrible time; the waves were higher than the ship, and I was very much frightened.

I have taken you ever since I have been in America. Hoping that I have not made any mistakes in spelling, I remain your little French reader, CLAIRE.

P. S.—I got the medal for English.

MANSFIELD, OHIO.

DEAR ST. NICHOLAS: I want to tell you of another Christmas Club that to-day has given its first dinner. About four weeks ago, upon a rainy Sunday, a lady was reading over some back numbers of the ST. NICHOLAS to her little girls, and happened upon the account of the first dinner in Portland. Soon she found the older children and their father all listening, and many tears fell before the touching story was told. They all felt they must have a Club here, and the children with one accord said: "We will do without Christmas, if you will put it all into such a dinner." Then a few friends were spoken to, and soon a Club of not more than twenty children was organized, and such effectual work was done, that to-day one hundred and sixty children were fed and sent home with many nice presents. Forty more tickets were issued, but it was too bitter a day for those at a distance to come. A kind gentleman gave us the use of the hall, and all responded worthily to the call upon them. After the dinner, paper bags were given them, in which to put their surplus cake, oranges, etc., and the plates were soon bare. Then eleven of the children gave very prettily the little play in the ST. NICHOLAS for November, 1882, interspersed with songs. It was received most rapturously by the audience. Then Santa Claus came with his pack, and they were dismissed happier than they came. Another year will find us thoroughly organized, ready to care for many more, if it is needed. Truly yours, M. B. H.

LOUISVILLE, KY.

DEAR ST. NICHOLAS: Mamma subscribed for you as a birthday gift when I was twelve years old, but I had taken you when I was only six years old. I think "Donald and Dorothy" was a splendid story; but at present I am much interested with "Sara Crewce," and her queer "supposing" and "pretending" manners and ways.

We have a pet water-spaniel called Leo. He is very young, but we have taught him to sit up, to ask for food, to jump over things, and to carry papers for us.

Papa wished to send him to the dog-trainer, but we objected, wishing to train him ourselves, and not expose him to the cruelty of dog-trainers; and we were well rewarded, for his gentleness and sagacity are remarkable.

I am afraid my letter is too long to be printed, but as it is my first, I should feel very much honored if I found it in the "Letter-box" of your pleasant, instructive magazine.

Your admiring reader,

BERTHA J. R.

We thank the young friends whose names follow, for pleasant letters received from them: Alice B., Edith N. A., May, Family P., Fannie Mason, Ethel M. Smith, A. Parker, Mabel Hughes, Gilbert H., F. A. C., Freddie E. Hobart, Lloyd McC., Ella D., Edith M. C., Josie, Gwyneth and Winnie, Bertrand F. Bell, A. H., Jeanette C. V., Edith S. Wade, Constance Ruth, E. H. W., Edna, Fanny B. Johnson, Susie K. Zettie, A. H., Percy McDowell, Margaret J. W. and Ethel B. D., Grace Riley, Eleanore P. C., Inez E. Holt, Helena J., May E. R., Elsie S., Ethel Holbrook, Pansy and Daisy, Ethel Doan, H. D. P., Minnie Orcutt, Marie Griswold, Helen Sears, Mary and Alice, Daisy J., Emma H., Mary A. Meigs, Luie Buchanan, Daisy Vivian, Edith Parks, Nancy W., Sophie M. Lee, Guy M., Bessie G. Pomeroy, M. D. and L. F. Libbie, B. Griffin, C. Burt, Laura Howell, Harry A. Austin, C. A., Anita F., R. Wiley, Roy Taylor, Gussie Norcross, M. T., Lida S. Danforth, Florence Adèle N., Flossie Russell, Evangeline Y., Lillian A. Thorpe, Minnie V., F. Adela C., M. E., Sarah and Kate L., Susie J. M., Lena A. C., John J. D., Bessie, A. McK. G., Nellie F. D., Mabel S., Oswald L., Nellie S. C., M. W., Mabel and Elsie, M. Dennison, Daisy Holroyd, Walton L. Oakley, Meta B. Macfarlane, Potter R., W. B. Benjamin, Ethel Fish, and Mary Meigs.



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 ANSWERS

ANSWERS
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 Sophie Lee, 1-
 C. Johnston, 1-
 "bugie," 1- E.
 Dyer, 1- Elsie
 Mamma, and
 "Rose Maylie
 Etie K. Talbo
 Brownie," 2-
 mana, 10-"
 Albert S. Goul
 Eta R., 1- J
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THE RIDDLE-BOX.

ANSWERS TO PUZZLES IN THE MARCH NUMBER.

MUSICAL WORD-DWINDLE. Effaced, deface, faded, deaf, fed,

With rushing winds and gloomy skies
The dark and stubborn winter dies;
Far-off, unseen, spring faintly cries,
Bidding her earliest child arise;
March!

"March," by Bayard Taylor.

HOUR-GLASS. Centrals, abominate. Cross-words: 1. Impeached.
2. Vertena. 3. Stove. 4. Amy. 5. I. 6. Ant. 7. Smart. 8. Plat-
ter. 9. Longevity.

BEHEADINGS. Saint Patrick. 1. S-mall. 2. A-long. 3. I-rate.
4. Nopal. 5. T-race. 6. P-lace. 7. A-muse. 8. T-rain. 9.
Remt. 10. I-rate. 11. C-live. 12. K-edge.

CURE. From 1 to 2, copious; 2 to 4, stammer; 1 to 3, cements;
3 to 4, stagger; 5 to 6, beseech; 6 to 8, hungers; 5 to 7, breaker;
7 to 8, Rameses; 1 to 5, crab; 2 to 6, sash; 4 to 8, runs; 3 to
7, suit.

MYTHOLOGICAL DIAMOND. 1. P. 2. Pan. 3. Circe. 4. Car-
neus. 5. Parnassus. 6. Perscus. 7. Jason. 8. Eos. 9. S.

TO OUR PUZZLES: Answers, to be acknowledged in the magazine, must be received not later than the 15th of each month, and
should be addressed to ST. NICHOLAS "Riddle-box," care of THE CENTURY CO., 33 East Seventeenth St., New York City.

ANSWERS TO ALL THE PUZZLES IN THE JANUARY NUMBER were received, before January 15th, from Grace H. Kupper—"Socrates"
—Maude E. Palmer—K. G. S.—"A. Fiske and Co."—"Orange and Black"—Francis W. Islip.

ANSWERS TO PUZZLES IN THE JANUARY NUMBER were received, before January 15th, from Arthur Lozier, 3—Marie D. Grier, 1—Joe
W. Burton, 2—P. W. S., 1—Paul Reese, 12—Wayne E. Smith, 1—Louise McClellan, 14—Bessie Gardner, 2—J. W. Gardner, Jr., 4—
"I. Van Hoe," 11—Maie H. Munroe, 1—Lillian A. Thorpe, 5—"Alpha Alpha B. C.," 8—Tom and Clara, 1—Ruby Preston, 3—
Sophie Lee, 1—"Est. and Min.," 2—Ednor Smith, 1—Grace M. H., 11—Donna D., 2—"Pug," 1—Twinkle Craig, 9—Alexander
C. Johnston, 1—Cecilia McCorkell, 1—Katie G. S., 1—Rena, 1—Sidney, 1—"Dorothy Dumps," 1—V. P. C., 2—"Dot Perry-
bingie," 1—Eva Stewart, 1—Margaret and Minnie, 2—C. W. N., 1—Lulu Hill, 2—Ellie and Susie, 6—1. Poskowitz, 1—Lulu
Day, 1—Elsie Davenport, 6—Lila and Edith, Paris, 1—Russell Davis, 13—"Two Bs.," 1—"Two Little Owls," 1—Aunt Kate,
Mamma, and Jamie, 13—"Sally Lunn," 6—"Patty Pan and Kettle drum," 5—R. T. Lincoln and A. H. Tyler, 1—"Two Bs.," 3—
"Rose Maylie and Oliver Twist," 3—"Skipper," 4—B. C. and M. C., 9—"L. Rettop and others," 10—H. W. and H. G. Bill, 1—
Elic K. Talboys, 8—"Little Mother," 1—"Twin Elephants," 5—Helen M. Clarke, 2—Clara Mabel Green, 4—"Duchess and
Bowditch," 2—Louisa E. Ermburg, 1—Burton R. Corbus, 2—"Three Graces," 2—"Hypatia," 1—"Infantry," 13—Jennie S. Lieb-
mann, 19—"May and 79," 8—"Good Timers," Waltham, 5—"Late Comer," 1—"Violet Sweetbrier," 1—Nellie L. Howes, 8—
Albert S. Gould, 13—Kafran Emerawit, 8—Millie Day, 2—"Juan and Juanita," 3—Annie Floyd, 9—"Hyme," 4—Jo and I, 13—
Ema R., 1—Jo and Mim, 2—Helen Fisher, 1—"Pocahontas," 6—H. D., 5—C. A. W., 2—Roxalene Howell, 1—Fred and Harry
Hooper, 4—"Lehte," 7—Jay Laret, Jr., 11—Edward S. Hine, 2—"May and Warren," 2—Nellie and Reggie, 12—"Jenny Wren," 8—
Robert and Randolph, 9—Grace and Clara, 1.

EASY HOUR-GLASS.

The central letters, reading downward, spell a word meaning to
concede.

CROSS-WORDS: 1. To penetrate. 2. Supercilious. 3. A unit.
4. In-hour-glass. 5. Recent. 6. A law. 7. Satisfaction.

"SNOWDROP."

COMBINATION STAR.

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      6
    
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FROM 1 to 2, a braggart; from 1 to 3, makes happy; from 2 to 3,
argues rationally; from 4 to 5, the principal gold coins of ancient
Greece; from 4 to 6, to satisfy; from 5 to 6, the shortening of a
long syllable.

ENCLOSED DIAMOND: 1. In state. 2. Enraged. 3. Weeds.
4. A cure. 5. In state.

EAST SQUARE (contained in the diamond): 1. Distracted. 2.
A verb. 3. A haunt.

EAST SQUARE READ BACKWARD: 1. An obstruction. 2. A
time. 3. A masculine nickname.

F. S. F.

DOUBLE ACROSTIC.

My initials name a famous artist who was born on April 6th, and
my initials name a great artist who died on April 6th.

CROSS-WORDS: 1. A popular report. 2. Fragrance. 3. An
aquatic animal of the radiate type. 4. Austere. 5. The great

A CRAB PUZZLE. 1. Lady crab. 2. Glass crab. 3. Soldier crab.
4. Fiddler crab. 5. Hermit crab. 6. Land crab. 7. Palm crab.
8. King crab. 9. Porcelain crab. 10. Oyster crab. 11. Horse-shoe
crab. 12. Spider crab.

ST. ANDREW'S CROSS OF DIAMONDS. I. 1. S. 2. Ate. 3. Stake.
4. Eke. 5. E. II. 1. E. 2. Era. 3. Erase. 4. Asp. 5. E. III. 1. E. 2. Era. 3. Erase. 4. Asp. 5. E. IV. 1. E. 2. Ira.
3. Erode. 4. Ada. 5. E. V. 1. E. 2. Pay. 3. Eater. 4. Yes.
5. R.

DOUBLE CENTRAL ACROSTIC. Fifth row, Chesterfield; sixth
row, H. W. Longfellow. Cross-words: 1. churCHyard. 2. catcH-
Words. 3. propELLers. 4. glosSology. 5. lightNings. 6. col-
LEGiate. 7. powerFULLy. 8. chafFERing. 9. concILIate.
10. dispELLing. 11. discLOSing. 12. blindDworms.

OCTAGONS. I. 1. Bed. 2. Tunes. 3. Bungler. 4. Engrave.
5. Delayed. 6. Sever. 7. Red. II. 1. Did. 2. Waned. 3. Dangler.
4. Ingrate. 5. Delayed. 6. Deter. 7. Red. III. 1. Cab.
2. Cabos. 3. Cabinet. 4. Ability. 5. Bonitos. 6. Seton. 7. Tys
(sty).—CHARADE. Spar-row-hawk.

QUINCUNX. ACROSS: 1. Clip. 2. Oar. 3. Task. 4. Ass. 5. Unto.

artery proceeding from the left ventricle of the heart. 6. A common
French word meaning a choice or select body. 7. Horizontal.

"AUGUSTUS G. HOPKINS."

DIAMONDS.

I. 1. In portions. 2. An animal. 3. Summons to appear. 4.
One who loves his country. 5. To contaminate. 6. Fortune. 7.
In portions.

II. 1. In portions. 2. A cover. 3. Fruit similar to lemons.
4. Precisely alike. 5. To put off. 6. To utter in words. 7. In
portions.

FLOSSIE.

DROPPED SYLLABLES.

EXAMPLE: Drop a syllable from an event, and leave to mark.
Answer, In-ci-dent.

1. Drop a syllable from a kind of needlework, and leave a mineral.
2. Drop a syllable from threatening, and leave the cry of an animal.
3. Drop a syllable from an absconder, and leave an animal. 4. Drop
a syllable from a place of refuge, and leave a salt. 5. Drop a syllable
from a meeting, and leave to come in.

"ANNA CONDOR."

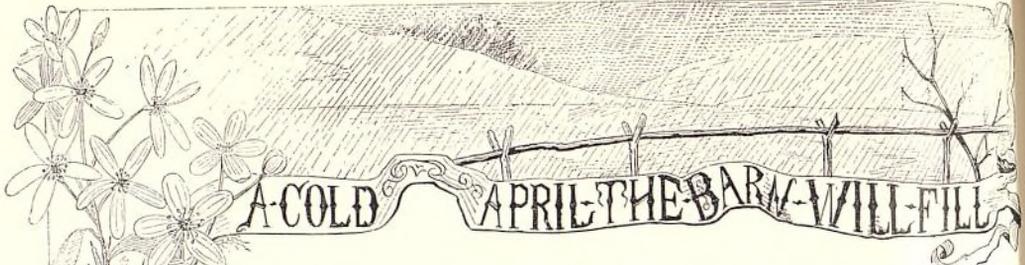
CHARADE.

HE needs my first who fain would journey far;
My *second*, he who toils on dusty ways,
And, to whatever clime his journeyings are,
The traveler makes my *whole* before my first he pays.
Still each new day my *first* he must espy,
Or else my *second* he can never feel,
While he, resigned, perchance my *whole* must cry,
If from his purse some thief my *first* should steal.

ANAGRAMS.

THE letters composing each of the eight following groups of words
may be transposed so as to form a new word.

1. Pie crust. 2. Tart illusion. 3. Great hotel. 4. Real thugs.
5. Partisans. 6. A recent pen. 7. Shoe tags. 8. Ten priests.
w.



NUMERICAL ENIGMA.

I AM composed of fifty-seven letters, and form two lines of an English poem. The lines are not consecutive. The first line contains twenty-six letters.

My 22-7-14-56-44-33 is the author of the poem from which the two lines referred to are taken. My 54-29-53-35-3-25-51 is the biographer alluded to in the quotations. My 30-17-38-49-4-23-11-40 is a figure of speech used in each line. My 4-15-6-9-1 is what the biographer is called in the first line, and is the name of something that lives both in and on the water. My 35-2-27-51-48 is what his hero is called; this lives in the water. My 4-46-29-14-41 is the name of a Corsican patriot, and is the person referred to in the second line. My 17-55-43-6-3 is what he is called in the second line, and which flies in the air. My 31-44-3-37-5-16 is what the biographer is called in the second line, and which also flies in the air. My 32-53-8-23-30-12-53 is what the biographer once compared himself to, as being an *interpreter* between these two heroes, "joining them, as

two great 56-7-45-34-36-47-52-42-38-53." His biography will ever keep 10-20-55-50-13-19-42-38 the name of his hero of the first line, and he will 18-24-47-57 as "Prince of Biographers" by all who have an 26-21-39 to the force of minute detail.

J. P. B.

PI.

Sturf eth lube dan tehn eth rowshe ;
 Stingrub dub, dan slingmi lerwof ;
 Skorob tes efre hwit kinglint rign ;
 Drish oto luff fo gons ot gins ;
 Scrip dol several tiras hiwt dripe,
 Weerh eht dimit stoveli heid,—
 Lal hingst darey hwit aiwl,—
 Palir's mognic pu eht lihl!

WORD-SQUARE.

1. Bestows. 2. To reiterate. 3. A rhetorical figure. 4. The essential oil obtained from the flowers of the bitter orange. 5. A maker of men's garments. 6. Steps. "EUREKA."

TRIANGLE.

	1	
	2	8
	3	9
	4	10
	5	11
6	.	12
7	.	13

1, In pledge; 2, 8, a preposition; 3 to 9, a small quadruped; 4 to 10, a feminine name; 5 to 11, a simpleton; 6 to 12, part of a compass; 7 to 13, musical instruments.

From 1 to 7, acquiring by labor; from 1 to 13, possessions.

"ODD FISH."

BEHEADINGS.

1. Behead a tree, and leave roguish. 2. Behead on high, and leave a gallery in a church. 3. Behead thrown violently, and leave an organ of the body. 4. Behead a preposition, and leave a contest.

5. Behead a pronoun, and leave belonging to us. 6. Behead to efface, and leave to destroy. 7. Behead to reproach, and leave a relative. 8. Behead to annoy, and leave comfort. 9. Behead an occurrence, and leave to give utterance to.

The beheaded letters will spell the name of a famous general, beloved by all Americans. "BUFF."

DOUBLE ZIGZAG.

1	.	.	.	11	.	.	.
.	2	.	.	.	12	.	.
.	.	3	.	.	.	13	.
.	.	.	4	.	.	.	14
.	.	.	.	5	.	.	15
.	.	.	.	.	6	.	16
.	.	.	.	.	.	7	17
.	.	.	.	.	.	.	18
.	.	.	.	.	.	.	19
.	.	.	.	.	.	.	20

CROSS-WORDS: 1. Granting. 2. Counterfeit. 3. Obstructions. 4. Opposed. 5. Gentleness. 6. Contrivance too late. 7. Sound in doctrine. 8. A cipher composed of one or more letters interwoven. 9. To operate against. 10. In truth.

ZIGZAGS: From 1 to 5, one of the months; from 6 to 10, dances; from 1 to 10, dupes; from 11 to 15, terms; from 10 to 20, value; from 11 to 20, the name of a famous English poet who was born on April 7th. FRANK SNELLING.

QUINCUNX.

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.
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I. ACROSS: 1. A long beam. 2. To spring. 3. Food. 4. A reptile. 5. A festival. DIAGONALS (beginning at the lower left-hand corner): 1. In fray. 2. Recompense. 3. An arrow. 4. The Turkish government. 5. To imitate. 6. In fray.

II. ACROSS: 1. A salver. 2. To increase. 3. Penalty. 4. A colored fluid. 5. The Greek god of war. DIAGONALS: 1. In fray. 2. A tree valued for its timber. 3. To twist together. 4. Grades. 5. A sharp instrument used for hewing timber. 6. In fray. DUCHE.

AN ANAGRAMMATICAL PUZZLE.

FROM one word of thirteen letters every word in the following paragraph may be formed. No letter is used twice in any word unless it occurs as many or more times in the original word, which contains the five vowels of the English alphabet, and which means "the act of reviving."

"Arise, O saint! To Etna run! Rest not in cot nor court, on seat or stone. Instruct! Insist! Use reasons stern! Rouse, scare; scorn sun, star or rain! Souze curate, tenor, crone! Sustain resist, nor count on seniors' snores. Trounce strict censors; strut on in coarse attire; retain no cat; incur not Orient ire. CHARLIE S. B. * * *"

CHANGES.

EXAMPLE: Change comrades into vapor. Answer, MATES STEAM.

1. Change salty into foreigners. 2. Change wrinkled into a bird. 3. Change a filament into scarcity. 4. Change pieces of meat into a vessel for holding coal. 5. Change a kind of plunger into sharp ends. 6. Change a kind of plum into wanderers; again, into atoms. F. S. F.

THE DE VINNE PRESS, PRINTERS, NEW YORK.