

good thing too, for he is a disgrace to the family."

Just then the farmer's wife came along to look at the chickens. She had watched them anxiously for days, and though she had praised them to the hen's content, yet she was evidently expecting something further. The old hen clucked proudly as she came up, but the farmer's wife held up her hands in dismay.

"Why, dear me!" she exclaimed, "Here's the best of the lot spoiled! My beautiful chicken, that I was looking forward to with such pleasure. I'll never trust this hen again; I thought she would be so careful, and I do believe, that the stupid creature has

killed it. I would rather have lost the whole brood than that one precious chicken. It was quite a favour getting the egg, and I made sure that my favourite hen would have brought it up for me."

The hen slunk away, for though she had not actually killed the poor little chicken, she knew it was her fault that he had met with his death, and as the farmer's wife departed bemoaning her loss, the hen said to herself, "One sets a value upon one thing and one upon another, and who could tell that any one would care for such an ugly creature as that. But I suppose one must make up one's mind to remember that in the world there are many opinions."

J. G.

WITH THE TOY-MAKERS.



TOYMAKING has long been an important branch of business, and in recent years it has undergone a remarkable development. A glance at the window of any toy-shop will afford proof of this; for there it will be seen that almost every department of the industrial art has been placed under contribution in the production of playthings.

The few simple toys which met all the wants of the grandfathers and grandmothers of the present generation of

young persons no longer satisfy the demand for amusement. It is of the nature of things that in these days a craving for novelty even in the matter of toys should exist; and to the gratification of this craving toy-makers have addressed themselves with more or less success. The doll, as we have seen, is no longer a clumsy block of wood, but a real work of art in papier-mâché and wax.

The pop-gun and the battledore have been the parents of a long line of toys of a similar character, and the little wooden soldier on his lozenge-like pedestal, and with his chip gun glued to his side, is the prototype of a warlike race, fashioned in various materials, and equipped with exact models of the appliances of modern warfare. In like manner, the simple tin trumpet of yore finds itself in competition with a whole orchestra of musical instruments more or less efficient as regards their music-producing qualities, but none of them at fault in making noise.

The child who enters one of those large toy-shops

which are to be found in the busy parts of all towns must be very much puzzled what to choose unless an unalterable intention has been formed before going in. From floor to ceiling the place is crammed with attractive objects, and as the eye wanders over them, one after another is fixed upon and as speedily rejected, until at length a choice is made, in something like desperation, of a toy which on leaving the shop may be thought, after all, to be the least desirable of those that were passed under review. It would save embarrassment and disappointment if an intending purchaser made up his or her mind with regard to what is to be bought before entering the toy-shop.

It must not be supposed that all toy-sellers are toy-makers. In some cases, it is true, keepers of toy-shops have special articles which they manufacture; but the great bulk of their stocks is drawn from many quarters. The variety of materials used in making toys will suggest the engagement of several classes of work-people in the business, and such is really the case. Wood had long almost a monopoly as a material for toys; now metals of various kinds are largely employed, as well as glass, india-rubber, leather, &c. and usually each manufacturer confines himself to one branch. This being the case, we cannot ask the reader to accompany us to any particular establishment to witness the arts of toy-making. But there is another reason why we cannot do this, and that is that several of the leading kinds of toys are made in countries far apart. To witness the production of the contents of a toy-shop we would require to make a journey to France, Germany, Switzerland, Holland, America, and Japan, as well as to different parts of the United Kingdom.

We know, however, how the toy-makers work,

and will here describe a few of their operations. Let us begin with wood toys, which, by the way, are chiefly made in Germany, and take as our illustration the familiar contents of a Noah's ark. It is a puzzle to most persons to understand how so much wood-carving can be sold for such a small amount. Half a hundred animals may be purchased for a sum which would seem barely sufficient to reward a workman for making a single pair. The secret of this matter lies in the mode of production, which is very ingenious.

Suppose that the workman desire to make a stock of sheep, he begins by cutting from the end of a log of wood a slice resembling a somewhat thin cheese. This he places in a turning lathe, and, cutting out a circular piece from the centre, leaves a ring of wood about three inches in thickness. This ring he next operates upon, until he has given it a form to answer his purpose. He then takes the ring from the lathe and cuts it across into two halves. If the points of severance be now examined, it will be seen that the wood bears the form in outline of a sheep. With a sharp instrument the workman slices up the wood into pieces about half an inch in thickness. He will have about a hundred such pieces from his ring, and each piece requires but a slight rounding with a knife to assume its final form ready for painting. So with the other animals of the collection, a hundred being produced in less time than would be occupied in making a pair without the aid of the lathe. Of course the principle of division of labour is in use—the turner confining himself to the production of rings, and the splitting up, trimming, and furnishing with ears and horns being entrusted to expert young persons of both sexes.

The parts of jointed dolls are made on the lathe, the boring, fitting, putting together, and painting being the work of separate hands. This is, perhaps, the cheapest of all toys, having regard to the number of parts of which each doll is composed, and the number of operations through which each has to pass before it is completed. There are no fewer than nineteen separate pieces in each doll, and yet the selling-price of the smaller size is one farthing each.

Sets of furniture, consisting of elegantly-formed tables, chairs, couches, chests of drawers, &c., in woods of various kinds and more or less ornamented by staining or polishing, are produced at equally low prices. Facility of production is obtained in this case by shaping at one operation a large number of the separate pieces of which the articles are composed.

Many toys are made of glass, and these are produced at a very rapid rate by glass-blowers, whose

operations are most interesting to witness. The glass is supplied to the blowers in the form of tubes of various diameters. Heating a portion of one end of a tube in the flame of a spirit-lamp urged by a jet of air from a blow-pipe, the operator, by pinching the end of the tube and blowing into it, causes a portion to expand, and this portion by a few deft operations he converts into a vase, a gold-fish globe, or other article.

For very young children few toys are more in demand than those made of india-rubber. This material, besides being very durable, is so soft and elastic that a child cannot hurt itself with toys made of it. Dolls, balls, and models of animals are the forms in which india-rubber is chiefly used by the toy-makers. Objection is sometimes taken to these toys on account of their strong sulphurous odour, but this odour wears off in the course of a little time. It arises from the fact that the india-rubber to suit it for such purposes has to undergo the process known as vulcanising. The uses of india-rubber were very limited until this process was discovered, because it became soft and lost its form on being subjected to heat. It was found that by warming the pure rubber, and kneading into it a certain proportion of sulphur, it lost the objectionable quality referred to, and acquired others which greatly increased its usefulness.

When the india-rubber has been duly kneaded it is rolled out into sheets, and from these are cut the portions necessary to make balls, &c. These pieces are then pressed into moulds to receive their shape. The mould for a ball consists of a block of metal with a hollow in it corresponding to the size and form of the ball. Into this hollow a suitable piece of the sheet of india-rubber, which has the consistency of dough, is pressed, the edge round the lip of the mould being trimmed off neatly. This completes one half of the ball, and the other is formed in the same way. Both parts are then brought together and united, and the ball, after being subjected to a considerable degree of heat in an oven, assumes its final form and consistency. Dolls and models of animals are made in the same way, the mould, of course, having the required form.

Metals are used to a considerable extent in the making of toys. Glittering sets of dishes cast in tin may be had, and so also may fire-grates and other articles. Tin plate is worked into kitchen utensils, and articles in cast iron, such as fire-irons, dressing-irons, &c., are to be had. In the production of all these, specially-trained work-people are employed, and a portion of our supplies come from various countries; though Birmingham holds a leading place in the trade.

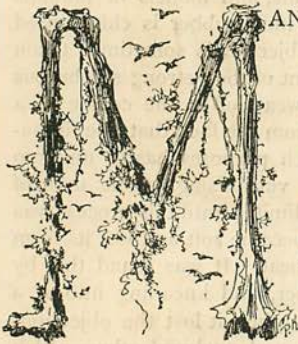
Of mechanical toys there are many varieties in

the market, ranging from the familiar "jumping-jack," who flings his legs and arms about when a string is pulled, to the most perfect working model of a steam engine or locomotive. Toys of this class are much in favour with boys, and some of them supply models for those of a mechanical turn to copy. The more expensive kinds of mechanical

toys are made chiefly in London, where several well-known makers employ considerable numbers of men in the work. Not only may completely-equipped steam-ships and locomotives be obtained, but the partly-finished parts of them may be had separately, so that boys who desire to try their hands at engineering have facilities for *doing so*.

THE AMBITIOUS TWIG.

AN ALLEGORY.



ANY years ago, two little branches grew in a hedgerow; they were brothers, but their tastes were different. The younger one was lazy, and liked to stay in the shade; but the elder one kept pushing steadily upwards, and making all the haste to grow that he could.

He had seven leaves each side, but his brother had only three.

"Why can't you stay where you are?" said the younger one; "you are well in the middle of the green."

"I want to get higher," sighed the elder twig; "there is plenty to be seen outside."

And he kept growing taller and taller.

"You are going beyond us," cried his sister-twigs; "bend down a little, brother."

"If I bent my back I should stop growing," said the twig; and he listened to catch their voices.

"Conceited fellow! he is trying to grow the tallest!" said some of the twigs; and a murmuring swept through the hedge.

One day more of pushing and striving, and he was nearly at the top of the hedge. He could no longer see his brother, but he called to him down through the branches.

"Brother, where are you?" he cried, "and what do you see down there?"

"I am wrapped up in softness," said the fair younger brother; "the green boughs are round me, the wind does not touch me—all round me is nothing but green. Just down below me grows a round white daisy—oh, such a beautiful daisy! All the day long I am looking at her."

The first brother felt a little lonely when he heard all this, but the sun still drew him upward. The next day he was quite at the top of the hedge, and

a head and shoulders taller than any of his brothers. The voice of his younger brother came up to him, but it sounded very faint and far away.

"Are you happy, brother? and what can you see up there?"

"I see the sky," said the elder twig; "there is blue all round me instead of green. I see trees that are taller than our hedge a great deal, and hills that are higher than all. I see white clouds like pillows, and birds that are lost in the clouds. Ah, I have longed for this! I feel a great joy and a rapture to the end of my smallest leaf!"

"We don't know what you mean," said the younger one, "and there can't be anything higher than this hedge. And why do you speak so softly? We cannot hear half that you say."

"Insolent fellow! he is taller than any of us!" cried some of the twigs; but by this time he was too far off to hear their voices at all.

"I shall have a prize," said the twig to himself, "because I have grown so tall. What will it be? I will ask the swallow. Swallow, shall I have a gold crown?"

"No, not a crown," said the swallow, "but something as good, I dare say. Far away down in the country I know of a twig like you. He grew far away from his fellows—so tall, and so strong, and so fair. He saw the world, and all that was passing. He stretched right over the stile, and shaded those who sat there. He was painted by an artist, because he was so lovely. And last of all a fair wild rose came and rested on his bosom."

"I shall get my reward," said the little twig; "my white rose will come at last."

Just then there came walking round the garden the gardener with his great long shears.

"The hedge is growing uneven," he said; "here's a twig much longer than the rest."

Clip, clip, clip, went the great big shears, and the tallest twig lay broken in the dust!

"They are all of one size now, I am glad to see," said the gardener, and he went away contented to his work.

LUCIE COBBE.