

RESULTS OF THE MECCANO ESSAY COMPETITIONS

In the last two numbers of the *Meccano Magazine*, we announced that we would award prizes for the best essays on "Meccano as a Toy" and "Meccano as a Help to the Study of Engineering," and below we have pleasure in reprinting the winning essays.

These competitions have been a great success, and it has been our pleasant duty to carefully read through many hundreds of literary efforts by Meccano boys. It is wonderful to learn how thoroughly the spirit of Meccano has been grasped by those boys who use and play with it. Enthusiasm for the hobby is the keynote of every essay sent in. The essays show great literary merit also, and in almost every case high intelligence is indicated in the boy who has written the essay.

A prize of a No. 2 Meccano Outfit for the best essay on "Meccano as a Toy" has been awarded to R. H. Cobbold, "The Rectory," Bratton Fleming, N. Devon, and a similar outfit has been awarded to David J. Nash, 90, Powerscroft Road, Clapton, N.E., for the best essay on "Meccano as a Help to the Study of Engineering."

Other essays sent in show great merit, and one of them is being printed in this issue. As soon as we can find space for them, we shall print others, and as each essay is printed we shall award the author a special prize.

Meccano as a Help to the Study of Engineering

Sent in by David J. Nash, 90, Powerscroft
Road, Clapton, N.E.

Master Nash is sixteen years of age and is an Engineering Student at the Northampton Polytechnic, London. In 1911 he won a L.C.C. Junior County Scholarship which took him to Hackney Downs School, where he passed the University Junior Schools Examination with honours. After two more years he passed the London University Senior Schools Examinations and gained the Matriculation certificate. For this success the L.C.C. granted him another scholarship which he now holds at the Northampton Polytechnic. He is now planning to take the Intermediate B.Sc. (Engineering) Examination, and, if successful, to continue studies for the B.Sc. Degree. He has our warmest wishes, and also, we are sure, those of every Meccano boy.



Some few years ago a great percentage of boys, when asked what trade or profession they would like to follow, answered "An Engineer." Many only had vague notions as to what the term implied, and scarcely any knew what being an Engineer meant.

Nowadays, however, hundreds and even thousands of boys have had practical experience in the line of mechanical engineering, and this is the result of Meccano. Such boys are able to talk intelligently on engineering subjects with those who are in the engineering world, and are able to read with interest engineering periodicals.

But it is when the Meccano boy steps out into the engineering world that the full advantages of his Meccano training are felt. As one who has been a Meccano boy for a long while and has now commenced studying Engineering in earnest, I am able to speak with some amount of experience. On commencing studies, I found that my work in the mechanical department had been lightened considerably by Meccano. The principle of levers was already quite clear to me, and moments were picked up without trouble. I had seen how that by gearing, the Meccano motor could lift much heavier loads, but at a slower pace. Hence, when I came across "Mechanical Advantage" and "Velocity Ratio," they gave me no trouble. The action of the constantly occurring worm and worm gear was quite plain and straightforward to me, because I had met it in "Meccano." The relation between the sizes and relative speeds of toothed wheels was also quite plain. Though bevel gears had not been met directly, their action had been illustrated by con-
trate wheels.

Another field covered by Meccano is that of belt and chain driving. Here again Meccano had taught me much. The fast and loose pulley systems had been illustrated by Meccano, and the uses of crossed belts, cone pulleys, countershafts, &c., needed no explanation.

Thus it will be realised that the principles of Meccano are true Engineering principles, and that when a boy is enjoying himself with Meccano he is learning something of practical use and of great importance.

Let me here add an appreciation of the appendix to be found at the end of the Meccano Manual. Here many fundamental mechanical movements are illustrated, and much information may be gained by any willing to learn. Most boys are anxious to know how it works, and here we have the Centrifugal Governor (which is so widely used), Hooke's Coupling (the motion of which is so evasive), the principle of the inclined plane, the principle of levers, and many other fundamental movements made quite clear for even the youngest to understand.

Thus I, as one who has gained much from Meccano, am most glad to show my appreciation of the best constructive and instructive toy (which really is more than a toy) on the market, not only of Great Britain but of the whole world.

DAVID J. NASH.

Meccano as a Toy.

Sent in by R. H. Cobbold, The Rectory,
Bratton Fleming, N. Devon.

Master Cobbold is a very bright boy of 11½. He is at present at school at Ellerslie, and he hopes to go on to Marlborough College in two years' time, and to become an engineer. He has won prizes at school, and has frequently been commended for the excellence of his essays.



There are toys and toys. Some are only toys. Meccano is a toy, but a jolly good one. It is never a waste of time to play with Meccano. You can begin when you are quite young and go on till you are quite an old boy.

It is a poor boy who does not know Meccano. You can play the best games of all with it. You can make almost anything in the way of machinery. In

fact, there is scarcely anything worth making that cannot be made with Meccano. The only thing that is hard to make is a mistake, that is if you pay attention. And you can have competitions with other boys to see who can build quickest or strongest, or who can invent best or copy best. You do not know you are learning things, but you are all the time. Not many toys do that.

Meccano does not break as other toys do; and it is not nearly so expensive as many useless things which are only toys. It must be nearly worth its weight in gold. In Meccano you make your own toys; you make them work, too, especially if you have a motor.

It lasts such a long time because you treat it as a friend. There is only one thing cleverer than Meccano, and that is the man who invented it. When you are at work at it, it is not like a game which is the same each time. Meccano can be always different, and always more and more interesting. That is why it lasts so long. You have never finished.

An advantage in Meccano is that the pictures of the models are always true. In fact, the model you make is better than any picture of it. Then, you can always get spare parts if any should be lost. Of course, no Meccano boy loses them; they are too precious.

"Toy" rhymes with "boy" very happily; no two things go so well together. Also "noise" rhymes with "boys"; but there is this about Meccano—it is the most silent of toys. You can go on working so quietly that people do not know that you are in the room with them and they sometimes forget to say that it is time to go to bed.

Of all the fascinating toys
That kind folk give deserving boys,
This is the one that never cloy
And never annoys;
The time it usefully employs,
And ne'er engenders any noise.

It happily the hump destroys,
And fosters educative joys;
Each faculty it well deploys,
And keeps the mind in equiscope;
A young mechanic nought enjoys
So much as this, the best of toys.

R. H. COBBOLD.

Meccano as a Help to Engineering

Sent in by Hector H. Beard, Gorsty Knoll,
Nr. Coleford, Glou.

This is a very neat essay which other boys will do well to read carefully. Hector is a very keen Meccano boy of 14, and his essay shows a seriousness of purpose which gives promise of quick advancement in his work. Although he did not gain the first prize, we have awarded him a special prize of an Inventor's Outfit.

I commenced to work with a No. 0 set of Meccano at the age of 10 years, following the instructions. I could soon make all the things that were illustrated; then I had a much larger set of Meccano, and this helped me so much with my ideas that owing to working with the Meccano I made up my mind I would be an engineer. I could see the very interesting work the Meccano could teach me. I have been adding to my collection of Meccano as often as possible.

I was 14 years of age on the 25th November, and I was apprenticed to a firm of engineers. I went a month on a trial, but before the month was up my parents were sent to, to say the firm would be glad to accept me as an apprentice, that they could see I had it at my fingers' end, and asked me had I been studying engineering books or what. I told them "No," but that I had been working with my Meccano, and the reply they made was this: "Well, if yours is a case of working with Meccano, it must be a grand thing for a boy to study." I consider that my Meccano has been the starting point in my life, of how to become an engineer, and I feel sure that it has helped me a great deal in getting in with the firm. I am in "The Forest Dean Engineering Company." I am deeply interested in my work, and I owe it all to my Meccano, and if I get on well I shall owe it all to using the Meccano. I have worked with mine all day long, and only left it to take my meals, and each part seems full of interest to me. Therefore, I consider Meccano is not only an interesting and pleasant pastime, but also that it gives boys such a splendid insight into all the different parts of engineering. I have three other brothers who are all keen on Meccano, and I can say honestly that if we turn out a family of engineers, we shall owe it all to your splendid gift of Meccano to boys.

Extracts from Competition Essays.

"It is lovely to have Meccano to play with when one is ill in bed. It makes one quite sorry to have to get up and go to school."—Fred Deakin, Havana House, Whitechurch, Salop.

"Meccano! That household word which sends a thrill of pleasure through the heart of every British youth."—Robt. Davison, 13, Frederick Street, Seaham Harbour.

"I am sure a boy who possesses a complete outfit is as rich, as regards material, as the best engineer in the country."—Leonard Roxborough, 127, Medlock Street, Kirkdale, Liverpool.

"I think the only person who hates Meccano must be Satan, for so many hands are busy making Meccano models and toys that he cannot find any idle ones."—D. W. Hall, 4, Mayfield, Mount Wise, Newquay.

"In the future the nation will produce a class of engineers that has never been excelled before, due to the popularity of Meccano amongst the boys of this country. As if by magic the little strips transform into bridges, cranes, wagons, or anything the owner wishes to build."—Louis Cunliffe, 46, Vine Street, Newton Heath, Manchester.

"The boy who is not a Meccano boy stands a poor chance compared with the Meccano boy, as he cannot know so much about the construction of machines as the lover of Meccano."—E. Dedman, 71, Kingston Road, New Malden.

"Many a night when I have been rather down in the mouth and had nothing to read, I just thought of my Meccano. That put everything right. I would be working away at a model in a minute and whistling as though the world belonged to me."—David Eaglesham, 98, Paisley Road, Renfrew.

"The Meccano Boy is like Oliver Twist,' my mother says, 'always longing for more.'"—Harold Hy Anderson, Ivy Lea, Baldon, nr. Bradford.

The Meccanograph Competition

We have been delighted to see the great interest which Meccano boys have taken in this Competition. A very large number of excellent designs have been sent in, many of them of great beauty. The prize of a No. 3 Meccano Outfit has been won by David Briggs, of Brigg, Lincolnshire, who has submitted a very fine set of designs, a number of which we may be able to reproduce later. This competition has shown us that the Meccanograph has aroused the keenest interest amongst Meccano boys, and we hope to commence a new competition shortly, which will give them a further opportunity of showing their skill.

The designs submitted by L. Agger, Queenstown, Ireland; A. B. Grosvenor, Brightlingsea, and C. Tuck, Lancaster, show special merit.