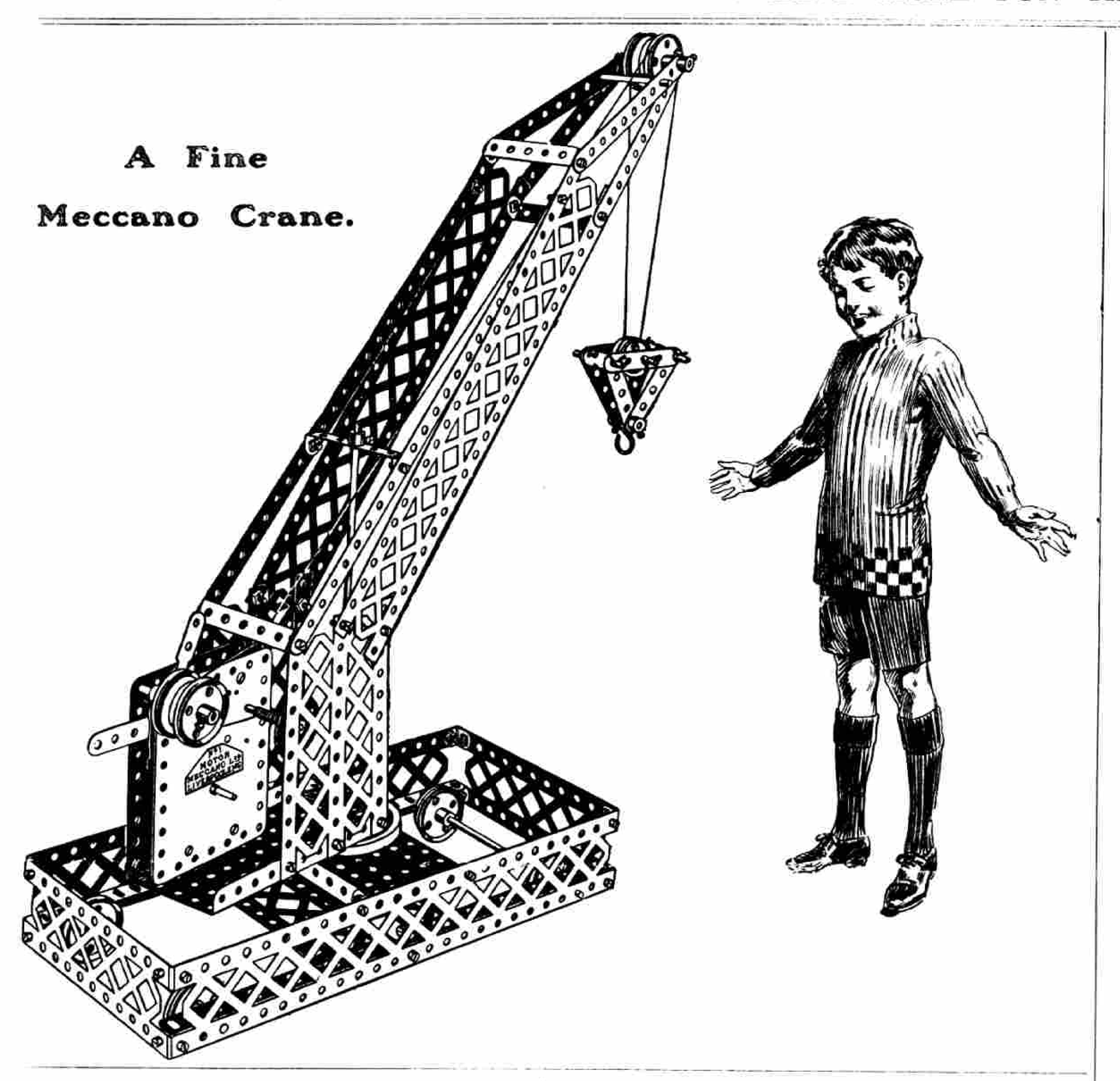
MECCANO MAGAZINE

TO HELP MECCANO BOYS TO HAVE MORE FUN THAN OTHER BOYS



Editorial

This number is a little late in making its appearance, but for that you boys must blame the paper makers and the printers, although to be quite fair to them they are having their full share of war difficulties, just as we are. Anyhow, now it is out, I am quite sure you will find many things to interest you in it.

The £200 Competition a Big Success.

As I write, the £200 Competition entries are coming in at a great pace, and there is no question about its being a big success. You boys will have to be a little patient in waiting for the results. There are many thousands of entries and each likely model has to be specially made up, and this is a slower business than usual with our sadly depleted staff. We will hurry all we can.

The Scientific Competition.

I am specially anxious that the Scientific Competition announced in this issue shall be a big success. I receive letters every day from head masters and teachers who use Meccano in teaching their pupils, and I want to show them as many uses for it as possible. You can help Meccano splendidly by contributing something to this competition.

High Praise and Good Suggestions from Meccano Boys.

I have received many thousands of letters from British boys telling me how pleased they are that Meccano boys have now a magazine all to themselves. "Ripping" and "top-

hole" seem to be the favourite adjectives applied to it. Each day I am bombarded with suggestions for Meccano Clubs, Correspondence Clubs, and many others which I shall not disclose yet. I am considering all these very carefully, and as soon as possible I shall announce a scheme which I know will delight all my readers.

The Meccanograph.

This grand model continues to attract great interest. The new combined movement gives thousands of beautiful designs. I want all you boys to make one of these machines for yourselves and enjoy the fun. The Meccanograph Competition has produced excellent results, and shows me that even very young boys can do fine work without difficulty.

Meccano Boys and the War.

I want to give a special message of sympathy and good wishes to the many hundreds of Meccano boys who have written to tell me that their fathers or their brothers are out at the front or on the sea fighting for their country. Some of the messages sent to me are full of sorrow, and others breathe a spirit of brightness and hopefulness. There is hardly one of us whom this dreadful war has not touched, and with my young friends I pray for an early and favourable restoration of peace, and the safe return of our dear ones.

The Californ

The Life Story of Meccano

By FRANK HORNBY.

Every young healthy boy has hobbies, and I often think that the earnestness and thoroughness with which he pursues them is an index to the kind of man he will make when he grows up. It always gives me pleasure to see a boy following his hobbies with the greatest keenness, studying until he gets a thorough knowledge of them, and practising them until he is a thorough master of his games, because I know that when he grows up he will pursue his business in the same keen and thorough spirit.

It was a fortunate circumstance for me that I became interested in mechanics, and made my primitive workshop my hobby. I think that most boys commence their hobbies through some sort of accident, and the accident which got me interested in mechanics was the reading of a book which I had had given to me, containing the life stories of famous inventors, and the difficulties which they had encountered in working out their ideas, before success crowned their efforts. I was very young at the time, and this was one of my first books, and nothing which I have read since has exercised such a fascinating influence over me. I wanted to invent like Watt, who discovered the power of steam; like Benjamin Franklin, who discovered electricity, and all the other heroes I was reading about, but, of course, boy like, I did not know where to begin.

Just about that time perpetual motion was being very much discussed, and it seemed to me that if I could only solve this problem, I should have accomplished something very wonderful. I certainly should, but it did not take me very long to find out that I was attempting the impossible. Nevertheless, I got abundance of pleasure from making the attempt, and if my experience brought me no other success, it at least taught me something of mechanics and engineering.

I have now forgotten most of my inventions, but amongst them was a toy submarine which, on being placed on top of the water and set going, submerged itself, and was propelled under water. It might have been more successful if I could have got it to come to the surface again of its own accord, but this is just what it failed to do.

My own little workshop at home was my paradise, where I spent many happy hours working out all kinds of ideas. I had not many appliances or tools at my disposal, and when I wanted a device which called for great accuracy I had to pay some one to make it for me, which I remember always made a big hole in my pocket money. Each little device which I invented I patented, and I never had time to feel disappointed over the failure of an invention, because I was always ready with the next and brimming over with enthusiasm over it.

I went on in this way for many years, spending all my spare hours, happy as a lark in my little workshop, making all kinds of mechanical models to work by steam, electricity, or clockwork. There was no Meccano then, and I can tell you, boys, that I was hard put to it sometimes to devise and make some of the parts which I required. I often think now of the wonderful things which I could have made if I had had a Meccano outfit in front of me, to dip into when I wanted a new movement, and it is a firm conviction with me that it was the longing for an easier means of attaining the objects which I had in view in those days, which set me thinking along the lines which finally resulted in the introduction of Meccano.

(To be continued.)

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 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 contrate 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.

Meccamo 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 cloys
And never anyone 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 equipoise;
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, Glos.

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.

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. 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, Whitchurch, 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, Baildon, 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.

A Grand New £200 Prize Contest

First Prize £50 in Cash

MORE THAN 150 PRIZES IN CASH AND MECCANO OUTFITS, Etc.

The 1916-17 Meccano Prize Competition has now come to a close, and has proved a tremendous success, more than 25 per cent. more Meccano boys having taken part in it than in any previous competition. The interest which boys take in these contests is enormous, and we are immediately commencing another one, on the same lines as the last. Prizes in cash and in outfits to the value of over £200 will be awarded, and this time we have decided to increase the prizes by making an award to the inventor of every model which the judges consider will be interesting to other Meccano users. So get to work at once, boys, and send in photos or drawings of that new model which you have taken so much pleasure in inventing, and building, and playing with. If the prizes total £500 in value we shall be all the more pleased. Get an entry form from your dealer, or send to us for one.

There are no restrictions or entrance fees; any Meccano boy can compete, and you are just as likely to win a prize with

a No. 0 outfit as with a No. 6. This competition will close on March 1st, 1918.

A New Meccano Scientific Competition

The Meccano system of interchangeable standard parts besides being an admirable system of mechanical toy construction also lends itself to the construction of many models for use in demonstrating scientific principles. The models at present used for this purpose are very expensive and, further, a full set of models would only comprise a single-unit model for demonstrating each particular principle. As a consequence, it is usual in science classes to have the class split up into pairs of students, each pair on a different piece of apparatus. This necessarily reduces the efficiency of the teaching, inasmuch as the teacher has to distribute his attention over many different and separate lessons taking place all within the one class. Anything like collective laboratory teaching is therefore out of the question. With the same standard interchangeable Meccano parts, very many pieces of apparatus suitable for demonstrating different principles may be constructed, and, therefore, with a good outfit of Meccano parts a class may be provided with a number of identical scientific apparatus models all made for demonstrating the one feature, and further, these models by being built up by the students themselves develop the constructional capacity of the student, and then, after such models have been utilised for a particular demonstration, the apparatus may be dismartled and the same parts used to rebuild other apparatus for demonstrating other features. Collective teaching is thus quite possible.

The Meccano parts being made of metal and accurately to gauge, respond quite readily to the construction of even the most sensitive apparatus.

With a view to developing this side of the Meccano business, we are organising a Prize Competition for models particularly directed to this application of Meccano. We feel convinced that there are many bright Meccano boys who are students in technical and other classes and to whom this aspect of Meccano will readily appeal. We invite our scientific young friends to enter for this competition. Prizes will be awarded for the best models suitable for scientific demonstration, and also for suggestions of suitable parts not already in the Meccano outfits which would be helpful in building such scientific models. Competitors will, of course, remember that the cardinal rule making for success in this competition will be simplicity in the construction of the model, any over-claboration in construction in a model designed to demonstrate scientific principles being, of course, quite out of place. The rules governing our ordinary competition will also obtain in this case, the decision of the Meccano scientific experts being final. Competitors should send clear sketches, or photographs of their models, together with any experimental data arrived at in using the apparatus.

We offer the following list of suggestions for model apparatus as being typical of the kind to which competitors should direct their attention. The list is not to be taken as exclusive, but is offered merely by way of example:—

Model showing construction of braced girder work.

Model of quick return motion for a lathe or slotting machine.

Model of crank and connecting rod.

Apparatus illustrating the principle of a centrifugal governor.

Model of Hooke's or universal coupling for driving shafts not
in line.

Apparatus illustrating the orders of pulleys.

Apparatus for determining the efficiency of pulley systems.

Model of wheel and axle.

Apparatus for showing the efficiency of spur gear trains and
worm wheel drives.

Apparatus for illustrating the principles of the lever.
The triangle of forces.

Apparatus for showing the thrust and tension in the jib and tie rod of a crane.

Apparatus for determining the stress in a roof truss and for determining the forces acting at the crosshead of an engine.

Apparatus for demonstrating the principles of the inclined

plane.

The prizes will be as follows:—

competition.

1st Prize ... One No. 5 Meccano outfit in wood cabinet.

2nd Prize ... One No. 4 Meccano outfit.
3rd Prize ... One No. 3 Meccano outfit.
There will be additional prizes consisting of No. 1
and No. 2 outfits, &c. Entries must reach us by December 31st, 1917, and must be marked "Scientific Competition." No entry form is necessary. There are no entry fees, or restrictions of any kind in this

The New Meccano Manual of Instructions



Have you secured your copy of this fine new Manual yet? No Meccano boy should be without it. It means happy evenings the entire winter through. If you were to commence now to make the 326 fine models which it contains, it would take you years to get through them. It establishes the superiority of Meccano once and for all, and it puts every other toy in the shade. It contains a large number of prize-winning models in the last two Meccano competitions, the work of boys, who have shown most extraordinary genius. It trebles the value of any outfit purchased last year or earlier. Get your copy at once from your regular dealer, or from us if you have any difficulty. Price 1s. 3d. or 1s. 6d. post free.

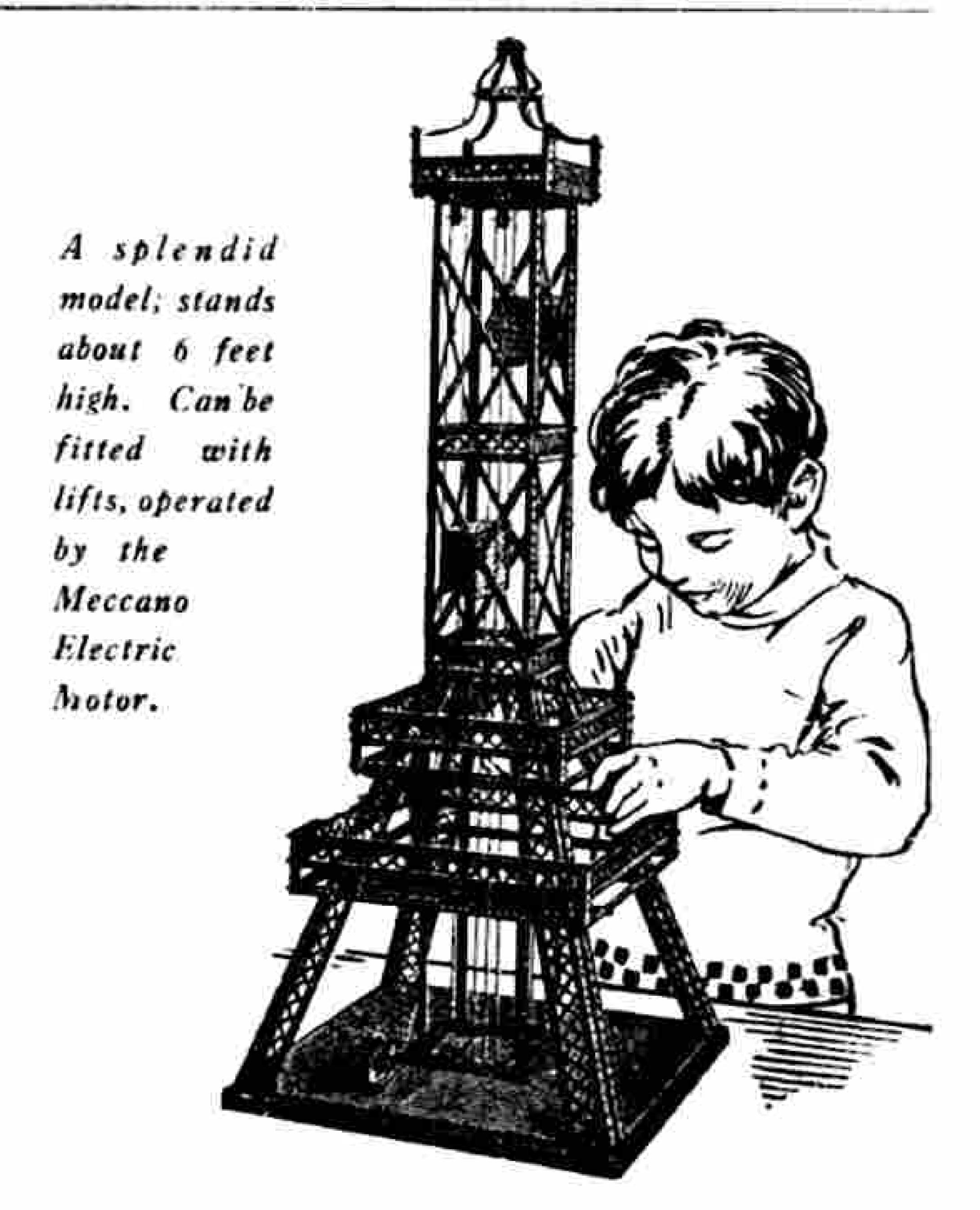
INSIST ON MECCANO

Meccano is a system of parts, each one representing a correct engineering element, such as would be used by skilled engineers in actual work. There are no parts like them; they are patented and cannot be imitated, and without them you cannot build correctly.

WARNING.—To be genuine your outfit must bear the trade mark "Meccano." If it does not, you will get a worthless imitation and will be disappointed.

How to get the Meccano Magazine Regularly

Under the new Government regulations we are unable to send the "Meccano Magazine" to any one except those who directly apply to us for it. If, therefore, you wish to become a reader of the M.M. it will be necessary for you to forward to us a request for it to be sent to you regularly, accompanied by 2d. in stamps for postage on the next four issues."



The Meccano Eiffel Tower

It Cam Be Done

Somebody said that it couldn't be done;
But he, with a chuckle, replied—
That "maybe it couldn't" but he would be one
Who woudn't say so till he'd tried.
So he buckled right in with a trace of a grin
On his face. If he worried, he hid it.
He started to sing as he tackled the thing
That couldn't be done, and he did it.

Somebody scoffed: "Oh, you'll never do that—
At least, no one ever has done it."
But he took off his coat and he took off his hat,
And the first thing he knew he'd begun it.
With the lift of his chin and a bit of a grin,
If any doubt rose he forbid it;
He started to sing as he tackled the thing
That couldn't be done, and he did it.

There are thousands to tell you it cannot be done,
There are thousands to prophesy failure;
There are thousands to point out to you one by one
The dangers that wait to assail you.
But just buckle right in with a bit of a grin,
Then take off your coat and go to it;
Just start in to sing as you tackle the thing
That cannot be done, and you'll do it.

GIVING HIM A PLAYMATE.

Aunt: Tommy! How cruel! Why did you cut the poor worm in two?

Tommy: He seemed so lonely.



The Editor has a little talk in this column with his Meccano boys. Whether he has space to reply to them all here or not, he is always glad to hear fron them. He receives hundreds of letters each day, and only those which deal with matters which are likely to inle est other Meccano boys can be dealt with here.

Correspondents will help the Editor if they will write on one side

o, the paper only.

A. W., Shepherd's Bush.—It is an excellent idea to lay aside your overtime money in order to purchase a No. 6 Outfit. We hope you will not have long to wait. Very pleased you like Meccano so much, and that your dad thinks so highly of it.

B. S., Manchester.—Too bad of your young sisters to fill up keyholes with your nuts and bolts. Manchester is not far away, and my word if we come over!

A. J. L., Walton-on-Thames.—Glad your wishingbone secured you a good Meccano outfit. We must

try this ourselves.

E. M., Newcastle, Staffs. - If I were king, the inventor of Meccano would soon be known to the world as Baron Meccano, in recognition of the services rendered to young England! '-Oh! that you were king, E. M. The inventor tells us, however, that the honour which he covets most is that he may find a warm place in the thoughts of all Meccano boys.

J. E., Wood Green.—Nonsense, J. E. You stand just as good a chance of winning a prize with your No. 1 outfit as you would with a No. 6. It is the simple ingenious models which take most of the prizes. We like your letter and appreciate the way you champion Meccano amongst your friends.

R. S., Wandsworth Common.-We are very interested in hearing that you have been a Meccano boy for 12 years. You must be one of the oldest members

of our big family.

Eric J., Denbigh.—Let us know how your Meccano Club progresses. Accept our best wishes for its success.

W. E. G., Handsworth.—Thanks for photo of your son with his Meccano models. We are happy in knowing that his hobby has benefited him. We trust he will eventually be fully restored to health.

Edward M., Urmston.- "I say that Meccano is worth ten times what you charge; and that is my soul verdict."—And a highly creditable verdict too. But why be timid over the Meccano Competitions? There are excellent prizes and no risks.

Mrs.G., Platt Bridge.—Glad to know of the pleasure which Meccano brings to your boys of eight and four

years. Thanks for your kind letter.

Edwin B. G., Dover.—"I think the M. M. is a ripping paper, and Meccano a top-hole hobby."—A bit slangy, Edwin, but otherwise the sentiment is excellent.

Norman J., Middleton.- "My word! you have a big mail bag."—My word! we have. We get several hundreds of letters a day, and each one as welcome as

the flowers in Spring.

Gunner D. W. T., Catterick.-Why should it seem "kiddish" to use Meccano at your age? Men of eminence are working with it and playing with it every day that goes by. The Meccano boys who are now fighting for their country form a goodly army, and, like yourself, many of them owe their knowledge of mechanics to their hobby.

H. A., Derby.— 'At school last week our teacher told us to write a composition on 'How I would spend £1.' Nineteen boys said they would buy a Meccano Outfit."-We doubt if they could spend their money to better advantage. Meccano is a great brain

developer.

T. W. R., Shrewsbury.—It was a pleasure to read your letter. That you can find time to make Meccano models for your local toy dealer's window and do other work for him, when you go to your engineering work at 5-30 a.m., shows a keenness for your hobby which makes us prophesy great things for you later.

F. G. W., St. Bees School.—There is no charge made for the M. M., and the stamps which you have sent are for postage only. Glad to know that you prefer

Meccano to diamonds.

D. M., Sanderstead.—For your boy of six to make all the No. 1 models unaided shows aptitude for engineering which we think you should encourage. Please give Harold our warmest wishes. When he can write we hope to receive one of his first letters.

C. S., Sheffield.—" Although I am now getting well above the age of toys, I still use Meccano."-Why! what age are you, C. S.? We know hundreds of boys round 60 who make Meccano models. You are not older than that, are you? Read reply to G. H., Cambs.

J. S., Retford.—Your suggestion for a new competition strikes us favourably, and we will keep it before us. Thanks also for suggestion for new part, which we will consider.

L. B., Whetstone.

Mothers, don't worry about your boy, Encourage and help him to play with his toy, Content, quiet and happy he'll grow Could you purchase a box of Meccano, you know. And knowledge he'll gain, and happiness too, No trouble or worry he'll then be to you. Oh! three cheers for lovely Meccano.

A little wobbly in places, but the sentiment is admirable.

Francis and Geoffrey, Bexhill.-We liked your nice letters and we liked your photographs. Write again

W. P., Brightlingsea.-It was nice of you to think of asking us to come to your birthday party, but you are such a long distance away and there is so much to be done here. We hope you all enjoyed yourselves.

F. K., Sunderland.—It pleases us to know that you realise what an important part Meccano is playing in the education of your boy. You could hardly do better

than put him to engineering.

G. H., Cambs.—"To me Meccano is much more than a toy, and it has been my interesting hobby for many years. I am now 70 years of age and I find Meccano of great use in illustrating mechanical inventions. —We receive many letters from gentlemen in your profession, telling us of the help which Meccano has been to them. We hope you will be interested in the Scientific Competition announced in this issue.

W. G. S., Lichfield.—"I never lose an opportunity of introducing Meccano to either boys or parents. As a Scoutmaster, I have good opportunities of doing so, and I count it as one of my 'good turns.' -An excellent example for other scouts to follow.

J. T., Manchester. — "My young relative is a Meccano enthusiast, and is often invited by his teacher to bring his outfit to school and give a demonstration to his class."-We have received very many letters recently in the same strain. It is now only the inefficient teachers who do not understand and use so valuable an aid to their work.

E. W. A., Wanstead.— 'This Christmas my parents promised me an Accessory Outfit if I passed my music examination, so you may guess I worked hard. I passed the examination, and I got my outfit."-A little while ago a Meccano boy wrote to tell us that he had joyfully allowed the dentist to extract two of his teeth, because he was buoyed up with a similar promise from his mother. These mothers of ours are very artful.

A. E. R. (Miss), Han: Mansions.—Meccano girls are just as dear to us as Meccano boys. Write us often. Connie G., London.—" Although I am a girl, I take great interest in my Meccano No. 4."--We are always very glad to hear from such keen Meccano girls as your letter proves you to be. Some day we may be able to arrange special competitions for the girls all to them-

F. S., Darlington.—"I was a user of Meccano when three years old. That beats all records, does it not? am now 13 and keener than ever."—A great many boys have written to say they started Meccano at four, but yours beats this, Francis. Many thanks for your kind wishes.

D. J. D. S., Upper Clapton.—"I am told I am too old at 153 for Meccano."—Who told you such a foolish thing, D. J. D. S.? Why, you are only just arriving at the right age to get the greatest enjoyment out of it. Of course, you 'don't feel like chucking it!"

Kathleen E. M., Hornsey.—We admire your determination to try again in the Competition, and we hope you will succeed this time. We are glad to hear from such a keen Meccano girl.

Eric N. G., Porthcawl.—We found your letter very interesting indeed. Mr. Hornby was pleased to receive your kind message. Evidently you found Meccano parts very useful in fitting up the stage properties for your amateur theatricals. We note that you are just the same age as Meccano.

Phyllis P., Brandon.—We are very much aware of the fact that we have Meccano girls as well as Meccano boys, and bright, intelligent girls you are, judging by

your letters.

V. F. H., Longton.—It is a splendid idea for you to start a Meccano Society in Longton to have meetings, build models, and discuss Meccano problems. Let us know how you get along.

J. K. H., Henlow.—Thanks for your very interesting letter, and for championing the cause of Meccano so enthusiastically. You will see that we are reproducing the photographs of winning competitors, and we shall continue this as far as we are able in future competitions.

H. S., Great Horton.—"One day at school we had to write an essay on 'The Toy I like best,' and the teacher thought we had cheated, as every boy in the class had got Meccano as best toy."-We prophesy great future success for the boys of Gt. Horton.

Stanley W., Letchworth.—"I say, isn't the M.M. jolly fine! Please keep it going."-We will, Stanley, and we will improve it every issue. Competition entries received.

D. B., Brigg.—"I have a daughter 17 months old who will never be quiet when we have Meccano out, unless she is allowed a screwdriver, which she already knows how to apply." —Our poor brain is commencing to reel. Surely no one can go farther back than this.

S. B., Luton.—"I think I would rather stay at home and read the M.M. than go to a Picture Palace."

-This is true fame, S. B.

E. C., Regent's Park .- "My Meccano takes the place of a brother, as I have none." This is one of the nicest things we have had said to us.

W. M., Sheffield.—The inventor of Meccano is a little older than he looks, but not so young as he feels. Since he commenced to receive such bright letters from

you boys he grows younger every day.

D. A. S., Leicester.—We liked your letter very much, and were very interested in hearing that your printing machine is fixed up with Meccano, that you make buzzers for your bicycles with it, lamp shades, soldiers' forts, signalling apparatus for sick patients, &c. We are glad to hear that you like the Meccano boy in our advertisements, and that not one of your chums will have any imitation of Meccano.

Leslie C., Brighton.-If you are not quite oid enough to invent such a model as the Meccanograph, we are sure that you are quite clever enough to make it and to enjoy drawing beautiful designs. We will help you if you have any trouble. Hurry up and get well, and tell your mother there is no need to apologise for your handwriting; it is very good indeed for a boy

L. B. W., Acton.—You seem to have a good sort of a dad, who buys you nice outfits when you want them. Did you get the No. 5A at Christmas?

Prices of Meccano

o°O	utfit with ful	instructions for buildin	4/6
1	do.	do.	7/6
2	do.	do.	13/6
3	do.	do.	20/-
4	do.	do.	32/6
5	do.	do.	47/6
6	do.	do.	115/-

No. 6 in well-finished cabinet with lock and key.

Accessory Outfits

No.	converti	ng a	No. 0	into a	No. 1	•	3/6
1a	do.	do.	1	do.	2	ř	7/-
2a	do.	do.	2	do.	3		8/-
3a	do.	do.	3	do.	4		13/6
4a	do.	do.	4	do.	5	•	14/-
5a	do.	do.	5	do.	All the second of the second o		37/6
					5.725	 1,52,00	

Meccano Outfits with Electric Motors



These are the regular Meccano outfits with the Meccano Electric Motor added. Each one is a magnificent present for any boy.

No.	1x	with	non-reversing	motor	13/6
7.7	2x	,,	3.7	**	19/6
9.9	3x	,,	reversing mote	or	30/-

Each Meccano outfit is complete with all parts and tools necessary for building models. Full instructions are included and the youngest boy can commence to build at once without study. An accessory outfit may be purchased at any time enabling bigger and more interesting models to be built. Additional parts may also be purchased separately, at prices given in our published lists.

Remember that though boys play with Meccano for pleasure, and though they get more genuine fun from it than from any other toy, it also gives them a sound knowledge of engineering. Through playing with Meccano, many a bright boy has been started on a prosperous career in one of the most important and profitable professions-engineering and mechanics.

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TO HELP MECCANO BOYS TO HAVE MORE

The Life Story of Meccano

By FRANK HORNBY. (Continued.)

After I was married and had boys of my own I still made models as eagerly and enthusiastically as ever, and when my boys grew old enough, it was my delight to make mechanical toys for them, and join in their play.

We were always working and playing together; always thinking out something new, and it was my delight in my spare moments to plan out new ideas and games for them to play with. It was in this way that I first came to think of the Meccano system.

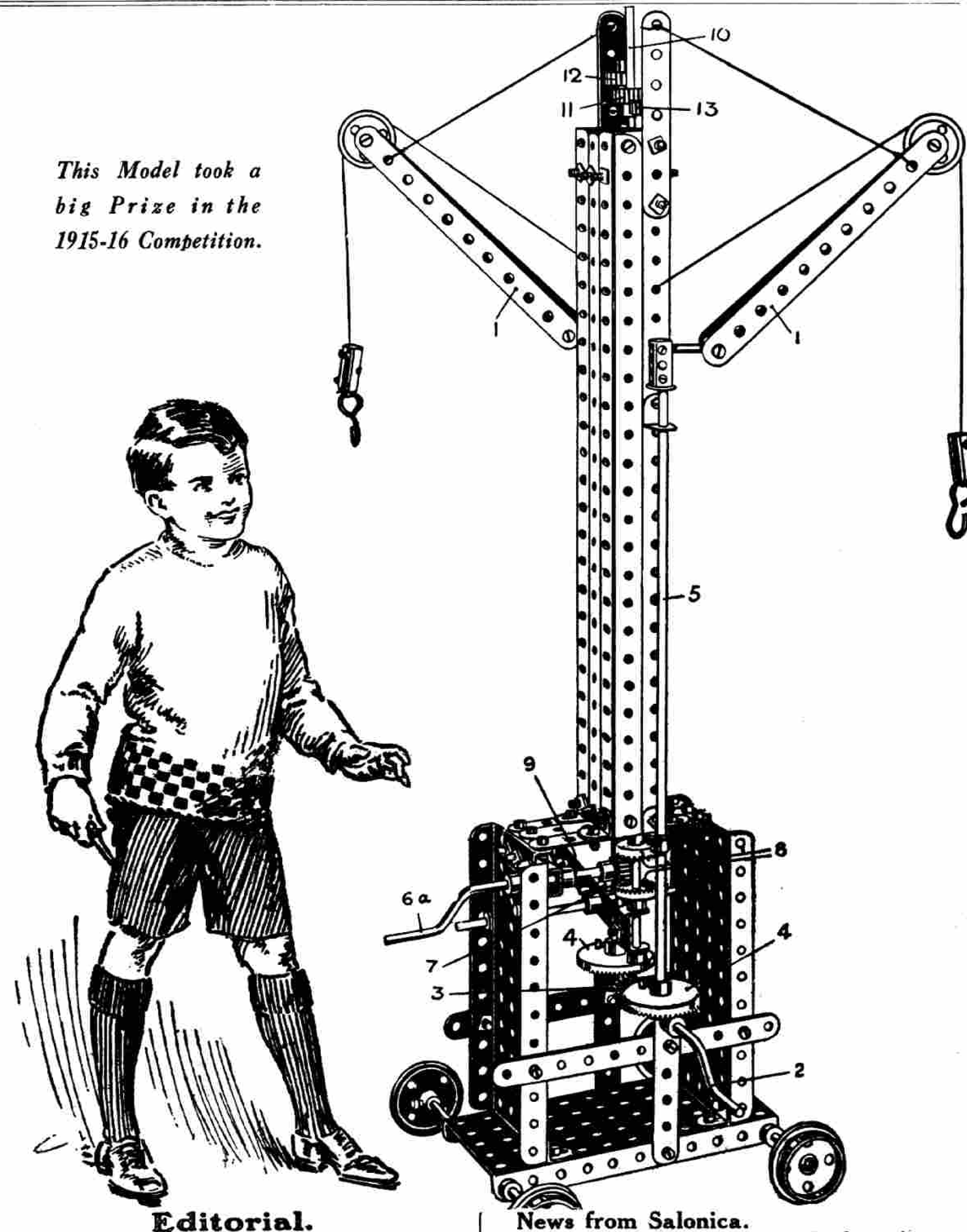
One snowy Christmas Eve I was taking a long railway journey, and as I sat in my corner seat, my mind was, as usual, turning over new schemes for my boys' enjoyment. We were experiencing some trouble in our little workshop through not having a number of little parts for building up a fine crane which we were making. We could not buy them anywhere, and it would be a long laborious process to make them. wanted some parts which could be applied in different ways to the model, and which could be adjusted to give different movements by alteration of position, &c., and as I studied the problem it seemed to me that the only way to get what I wanted was to have parts perforated with a series of holes so that they could be bolted up into the model in different positions, and at different angles.

I tell you, boys, that I was pleased when I hit on this solution of our trouble, but I had no idea then that the few hours' close thought which I was giving to my hobby were destined to change the entire future course of my life and work. The more I thought over my new parts the better I liked them. It seemed to me that if I only had a number of these parts, made of sufficiently strong material, and with holes coming in the right places, we could not only build the crane we were busy on, but other cranes of different types.

I felt very enthusiastic over the idea, and as soon as I got back home I bought a sheet of copper, and commenced to cut out the parts. I used copper because it is a soft metal, and was easy for me to work. My first difficulty was to decide on the most useful types and sizes of the parts which I was going to use.

I had by this time got away altogether from the idea of making them just for use in our new crane, and I was determined that no matter what model we made in the future, the same parts should be useful. I finally decided that I would make all my strips lin. in width, with a hole every lin. apart, from the centre of the strip; I first made a 21 in., a 5½in., and a 12in. strip, but I found that the latter was wrong, if I intended to keep a central hole, so I increased it to 121in. It was a long job to make all the strips that I wanted, but as I thought how useful they were going to be to me, I never got tired of the work.

(To be continued.)



Competition Results.

I am sure that it must have tried the patience of all you boys to wait so long for the results of the big Meccano competition, but here they are at last, and many a happy boy is now enjoying the handsome prize which has been sent to him. I congratulate all the winners, and to the losers I would say that if they persevere and send something in for the next competition which contains any real merit, they will certainly get a prize. Entries are already coming in, and I prophesy that the 1917-8 competition will be the most successful we have ever had.

Meccano Helps Our Heroes.

I have received many letters recently telling me how useful Meccano has proved itself in hospitals in this country and in France in interesting and amusing our wounded soldiers. If any of you boys or parents wish to confer a boon on any of our wounded heroes you could not do better than send them a Meccano outfit.

News from Salonica.

I have received a very interesting letter from a member of our staff now with the forces, who writes: "I had occasion to visit Salonica recently, and in a quaint old emporium I came across several Meccano outfits, and I could not help being pleased by finding the results of perhaps my own work in such an outlandish place." This little touch of home must have given great pleasure to our young friend. Grecian boys have been fond of Meccano for many years past,

Meccano Scarce This Year.

Meccano is going to be very scarce this year, owing to most of our factory being engaged on national work, and I am afraid that many boys who defer purchasing will have to go without until we can increase our output. The best advice I can give you is that you buy your new outfits and parts early, and do not wait until December.

RESULT OF THE

Grand Meccano Competition. Total Value of Prizes Awarded £262 12 6.

A PERSONAL MESSAGE TO EACH COMPETITOR.

I am sorry I have had to keep you boys waiting so long for the results of the big Meccano Competition this year, but I am quite sure that you will all understand the great difficulties which we have had to contend with. The entries from all over the world were much more numerous than in any previous competition, and our greatly reduced staff of model-makers have had to work night and day building up the selected ones for the judges. Anyhow we have been able to get out the list at last, and the prizes have all been despatched to the fortunate winners.

All-round excellence has again been the outstanding feature of the entries. Some very fine models indeed have been sent in and a large number of them will be included in the No. 2 section of the Meccano Manual, which is now in course of preparation. I want all you boys to look out for this No. 2 section of our Manual. It will supplement the big Meccano Manual, and will contain an entirely new series of fine models, which will bring joy to the hearts of all enthusiastic Meccano boys. Due notice of its publication will be given in an early number of the Meccano Magazine.

I hope that all competitors in the last competition, both winners and losers, will have another good try in the new Grand Competition which is now running. Prizes to the value of over £200 will again be given, and any model showing merit or novelty in the opinion of the judges is sure of winning a prize.

The entries in the last competition, and the letters which I am daily receiving from Meccano boys, show me that the enthusiasm for the hobby is growing every year. Many boys of course look upon Meccano as just a wonderful toy, and write to me of the intense pleasure which they get from it, but a great and growing number of boys and men take their hobby very seriously. They realise that through it they are acquiring invaluable knowledge of mechanics and engineering, and that without it they would miss a most valuable help in their studies and in their work. To the serious Meccano student I would say that we have many plans for increasing the usefulness of Meccano parts, which will render it the finest aid to the study and practice of engineering which has ever been known. We are going to help Meccano boys, and we are going to get them to help each other, by means of a scheme which is now in preparation, which I hope shortly to announce.

Our factory at the present time is principally engaged upon work of national importance, but all the while, we are studying and perfecting plans to make Meccano boys the happiest, most intelligent, and most useful boys in the world.

One of the lessons which this great war has taught us is that in the past we, as a nation, have displayed inefficiency in our system of dealing with technical education, and that unless we greatly improve our methods, we shall lose our position of supremacy in manufacture and commerce. I believe that in the work of better education which must follow the dawn of peace, Meccano will play an important part, and that before very long, it will be recognised as an indispensable aid to the rapid and thorough training of students of engineering.

LIST OF PRIZE WINNERS

1st Cash Prize - £50 0 0

Divided between two competitors.

2nd and 3rd Cash Prizes - £35 0 0 Divided amongst four competitors.

H. Volkman, 111, South 9th St., Brooklyn, New York, U.S.A.

Ore-handling Machine

Managing Director, Meccano Ltd.

4th Cash Prize - . £7 10 0

5th Cash Prize - £5 0 0

J. & C. Bell, 5, Maitland St., Newbiggin-by-the-Sea.... Freestone Planing Machine

6th Cash Prize - £2 10 0

6 No. 5 MECCANO OUTFITS

10 No. 4 MECCANO OUTFITS

18 No. 2 MECCANO STORAGE CABINETS

W. A. M. Brookfield Ter., Meanwood, Leeds Leeds Town Hall
GORDON BANKS, 462, Helmshore Rd., Helmshore, Manchester Dobby and Loom
R. F. Fidler, 16, Sydney Rd., W. Ealing, London
W. C. CUNNINGTON, Helpston Heath, Peterboro'
A. B. GROSVENOR, 8, Spring Road, Brightlingsea, Essex Improved Meccanograph

LIST OF PRIZE WINNERS—Continued.

LISI OF PRILE V	Altaurisch.
W. Kendrick, 7, Sugar Lane, Manchester	G. M. Abbott, 171, West 79th Street, New York, U.S.A Niagara Arch Bridge
J. E. YATES, 26, Market St., New Mills, Stockport Silhouetting Machine	J. Wasem, Côte 106, Neuchâtel, Suisse
J. Taylor, 10, Colenso Rd., Holbeck, Leeds	M. Lambert du Chemays, 15, Rue Premartine, Le Mans
C. D. Gadd, 40, Bamford Rd., Didsbury, ManchesterSpeedometer	A. P. Wittemore, Charleston, W. Virginia, U.S.AAutomatic Hammer
C. J. Parr, 45, Hazelbank Rd., Catford, London	F. Smith, Elmwood Heights, Pittsfield, Mass., U.S.A
E. C. G. Handscomb, 29, Fairlawn Mansions, New Cross, London, S.E.	J. K. Hare, "Westholt," Henlow, nr. Biggleswade, Beds
Well-boring Rig	L. H. Barker, 8, Welbeck Rd., East Ham, London, E
S. F. Martin, 18, Avon Rd., Upper Walthamstow, London, N.E. Cinematograph Mechanism	A. APPERT, Villa Pomponne, Montauban, Tarn-et-Garonne
S. S. Hall, "Glendon," College Rd., Epsom, Surrey Iron-ore Transporter	G. Dupuis, 114, Osgoode, Ottawa, Ont., Canada
ROBERT GRAY, "Tharrawaddy," West Melton, Rotherham	W. Hibbert, 204, S. Brand Boulevard, Tropico, Cal., U.S.A Paper Perforator
Slide Valve Marine Engine	E. Ravilious, "Aylwin," 46, Charleston Rd., Eastbourne
E. W. Lamb, 102, Lancaster Rd., East Ham, London, E.	J. CUTHBERT, 20, Queen Anne St., Newcastle-on-Tyne
American Railway Carriage	L. Brunet, 16, Rue St. Perpetue, Nîmes
F. J. Tickner, 15, Highcroft Gardens, Golders Green, London, N.W.	J. J. Pierse, Bishops Court, Lixnaw, Co. Kerry
Reaping and Binding Machine	F. Noll, 4,222, Broadway, Indianapolis, Ind., U.S.A
W. E. MATHER, 20, Ormidale Terrace, Edinburgh Reversing and Reducing Gearbox	F. A. Voos, 90, N. 11th St., Newark, New Jersey. Improvement in Meccanograph
CAPT. L. G. HUMPHREYS, A.S.C., British Prisoner of War, Offiziergefangenenlager,	E. White, 1,126, S. 1st St. West, Cedar Rapids, Iowa, U.S.A Concrete Mixer
Friedberg-in-Hessen, Germany	OC BI 4 BATCOCABIO OTITES
18 No. 1 MECCANO STORAGE CABINETS	26 No. 1 MECCANO OUTFITS
G. S. Reid, 54, Marchmont Rd., Edinburgh	E. Bullough, 391, Manchester Rd., Westhoughton, Bolton
W. T. & N. Hendry, Hertford Hse., Sanderson Rd., Newcastle-on-Tyne	GS Prop 54 Manches Property Pr
Designograph	G. S. Reid, 54, Marchmont Rd., Edinburgh
P. EATON, "Haslemere," Witney, Oxon	L. Rossignol, 8, Rue Lateral Raymond, Toulouse Gymnastique a la Barre Fixe M. Prolium, Rue Regale, No. 3, Nimes
J. BUTTERWITH, 42, Lorne St., Fairfield, Liverpool	D. V. Dhumatkar, c/o Dr. P. R. Pilgaokar, 10th Sadashine St., Kandewady,
A. E. McGechan, 7, Hill Rd., Barrow-in-Furness	Bombay, India
P. Cudworth, "High Clere," George St., Cambridge	E. Lang, 102, Barton Ter. W., North Adelaide, S. Australia Desk Pencil Stand
WM. Parkin, 55, London Rd., Reigate, Surrey	P. Arnold, 31, Quincy Place, N.W., Washington, D.C
E. H. GOODYEAR, 7, Bright St., Eastbourne, Darlington	L. Woodworth, F.D.L., Box 385, Ariola, Ill
Guillotine Paper-cutting Machine	J. Rumfitt, 20, Whalley Old Rd., Blackburn
A. A. B. GARDNER, 72, Vernon Rd., Leytonstone, Essex	R. Parriss, 14, Silver St., Trowbridge
Wm. Bell, 66, Needham Rd., Liverpool	G. Donsset, 14, Ave Henri Derain, Vernouillet
F. E. Kerr, 15, Tempest Rd., Beeston, Leeds	THEO. HORNDEN, 20, Jefferson St., West Carthage, New York, U.S.A Fanning Mill
O. H. Quibril, Shalem Lodge, Newark-on-Trent	H. A. CHURCHILL, 103, Station Rd., Market Drayton, Salop Knife Grinding Machine.
A. A. BLASDALE, 93, Holyhead Rd., Coventry	C. Turney, 302, W. Burlington St Fairfield, Iowa, U.S.A
HARRY FLETCHER, 1, Mount Villas, Chesterfield Rd., Mansfield	J. Gorx, 33, Avenue de Saxe, Paris
D. C. Ramsden, 257, Hyde Park Rd., Leeds	A. Selmersheim, 70, Bd. Garibaldi, Paris
F. Yates, 26, Market St., New Mills, Stockport	E. C. DOYLE, 1,715, State St., Little Rock, Ark., U.S.A
	F. Carlille, Lamoni, Iowa, U.S.A
20 No. 3 MECCANO OUTFITS	E. D. Gill, 26, Woodbines Av., Kingston, Surrey "The Magic Sector Plates" H. C. JOHNSON, 99, Polymers, Pd. Aigharth, Livermed.
LEON DALIBOT, 53, Rue de la Palestine, Rennes	H. C. Johnson, 99, Belgrave Rd., Aigburth, Liverpool
E. A. Blench, 74, Squires Lane, Finchley, London, N	R. RICAUT, 75, Bd. Carnot, Le Fesinet
P. Salatier, 49, Cours de la Liberté, Lyon	H. E. Gibson, 3rd University Cottage, Berkeley, Cal., U.S.A
M. Brunet, 16, Rue St. Perpétué, Nîmes	P. LLOYD, c/o Mrs. Heywood, Crawford Hotel, Crawford St., Rochdale
Roy Furse, Roseberry Av., Preston, Victoria, Australia	Adding and Subtracting Machine
J. Hamilton, Canadian Villa, Knock, Belfast	C. Tusoli, 13, Rue Ste. Hélène, Lyon
E. W. Tomlinson, Cherokee, Iowa, U.S.A	
H. L. HYAN, 620, West 149th St., New York, U.S.A	20 No. 0 MECCANO OUTFITS
G. E. Spooner, 30, Toft Wood Rd., Crookes, Sheffield Electric Tramway	R. Siemens, 70, West 128th St., New York, U.S.A
V. G. MELLOR, 46, St. George's Rd., Winsford, Cheshire Punching Machine W. W. HONNOR, Alpha Rd. Prospect, Adelaida Australia, Poultry Green Field Cutter	K. W. Towle, c/o Newport & Providence R. Co., Newport, Rhode Island, U.S.A.
W. W. Honnor, Alpha Rd., Prospect, Adelaide, Australia. Poultry Green Field Cutter M. Deramaux, 19, Rue Fontaine, Paris, 9me	Electric Locomotive and Power Station
P. Cheneau, Villas Médicis, La Bourboule, Puy de DômeJeu de Petits Chevaux	A. JEANROT, 23, Rue du Prinal, Bourges
HENRI LACROIX, Rue de l'Hotel de Ville, MantuaJeu de Course	H. B. PHILPOTT, 2, Westfield Buildings, Wakefield Rd., Morley Breakdown Crane A. J. Lowther, The Knoll, Warwick Rd., Acocks Green, Birmingham
J. H. LEE, 176, Lynwood Av., Providence, Rhode Island, U.S.A. Vertical Fire Engine	Automatic Weighing Machine
A. V. DER LEITH, 256, St. Palisade Av., Riverdale, New York, U.S.A.	A. G. Blasby, 11, Northcote Rd., Norwich
Electric Locomotive Crane	J. M. Doughty, N. Main Sty, Greeneville, Tenn., U.S.A
A. S. Hook, Tryon Rd., Lindfield, Sydney, Australia	C. RACIOTPI, 4, Sylvan Ter., New York
J. M. Nunn, 4,001, Lincoln Av., St. Louis, Mo., U.S.A Ditching Machine	W. E. WRIGHT, 23, Checketts Rd., Belgrave, Leicester
J. Verlinden, 27, Rue Germain, Lyon	R. Voillanne, Villa Peyronnel, La Bourboule, Puy de Dôme
25 No. 2 MECCANO OUTFITS	E. Smedley, 20, Vergette St., Peterborough
ARTHUR CLAYTON, 84, Edinburgh Rd., Walthamstow, London, E.	H. W. Burnett, 16, Graig View, Ynysddu, Mon Potato Harvesting Machine
ARTHUR CLAITON, 64, Edinburgh Inc., Wandhanstow, London, E. Automatic Match Machine	B. Corklin, 3,748, Wilton Av., Chicago, Ill., U.S.A
B. J. LYNCH, 1,211, Kemble St., Utica, New York	R. CHAPUT, 22, Alpine, Dubuque, Iowa, U.S.A
A. W. WOODMAN, 2,223, Capitol Av., Omaha, U.S.A	C. L. Bird, St. Fagan's Rectory, Cardiff
P. GASCUEL, 54, Avenue de St. Cloud, VersaillesL'Avocat Automate	E. FREMONGER, Plainfield, New Jersey, U.S.A
R. Govaert, 8, St. Paul's Ter., Norton, Malton, Yorks	R. Prive, 3, Rue de Luynes, Paris
C. WHITFIELD, 22, Railway Ter., Usworth Colliery, Co. Durham Potato Reaper	D. Goldsmith, 2091, W. Seminary St., Danville, Ill., U.S.A
L. G. G. CHARLESWORTH, 1, Ellesmere Rd., Saltley, Birmingham Drafting Machine	J. N. McKay, Caledonia, New York, U.S.A Foot Power Wood Turning Lathe
ROWS! A CIDANID NIETR	COMPITE CONTREST

BOYS! A GRAND NEW £200 PRIZE CONTEST

has started. Get your Entry Form either from your dealer or from us. Any boy can compete, and remember that more prizes are given for good small models than for big ones. There are no entrance fees or restrictions of any kind, so get to work at once, boys, and send in photos or drawings of that new model which you have taken so much pleasure in inventing, and building, and playing with Closing date March 1st, 1918.



OUR MAIL BAG

The Editor has a little talk in this column with his Meccano boys. Whether he has space to reply to them all here or not, he is always glad to hear from them. He receives hundreds of letters each day, and only those which deal with matters which are likely to intrest other Meccano boys can be dealt with here.

Correspondents will help the Editor if they will write on one side of the paper only.

G. S. C., Mereside, Ramsey.—Thanks for your thoughtful suggestions, which will be kept in mind. You will quite understand though, that until the war is over, it is impossible to manufacture new Meccano parts or new toys. Write us often.

C. B., Lincoln.—We note that you consider that the M. M. is "a great stunt." We have every hope that the war will not bring it to a standstill, as you fear.

S. B., Glasgow.—Your spending money came in very useful. With a No. 4 outfit you need have no fear of the long winter nights.

J. E., Aspatria.—Why are some boys so foolish? Of course your friend was disappointed with his imitation outfit, and now he will have to begin all over again. He ought to thank you for putting him on the right track.

R. E., Johannesburg.—This is the first time we have heard of Meccano strips being used as splints for a broken arm. We hope your sister is going along nicely.

F. B., Hull.—"At school quite a lot of boys have Meccano, and once we get together, by jove, there is no stopping us. If another boy enters the happy throng and says that any other outfit is as good as Meccano, he never attempts it again." Glad you converted your friend, F. B. There is more joy over one sinner that repenteth—— You know the rest. Give our love to all your Meccano pals.

B. W., Fordingbridge.—Our factory is a big one, and it will soon be bigger still. Sorry the birds deserted

their nests in your garden.

L. H. (Mrs.), Newquay.—Thanks for your very interesting letter. Your boy's enthusiasm for engineering should certainly be encouraged, and Meccano will be of great assistance to him. We deeply sympathise with you and your boy in your terrible loss.

W. M., Sheffield.—We could wish for no better champion of Meccano than yourself. Your letter makes good reading, and we may publish it when we can find space. Any boy who buys the goods you mention, is, as you say, going to suffer a big disappointment.

H. E. W., Brighton.—We note that you have read the M. M. "with glowing eyes." Don't waste time in trying to discover perpetual motion. Mr. Hornby was doomed to failure when he tried it, and we are quite sure you will be no more successful. We like your spirit and enthusiasm just the same.

N. E., Blaydon-on-Tyne.—"My best Meccano friend is John Edwards, and he says that Meccano is worth its weight in gold, and he's jolly well right." Of course he is, Norman. Your daddy seems to know what is good for his boy.

T. G. M., Sapcote.—"This is true, isn't it?"

M eccano
E xclusively,
C hildren
C rave,
A sking
N o

Perfectly true, T. G. M.

J. J., Yorks.—"I wish I could come over and see you, but I am too far away, and besides, there is my train fare, and who can pay that? Nobody in our house." Never mind, J. J., perhaps you will come over some day to see your uncle, and if you do, why, come up to see us.

J. B., Dover.—To stay at home and cheer your mother up is a splendid part for you to play, J. B. We sincerely hope your dad will come back to you

W. H., Northampton.—"Do please put a photo of Mr. Hornby in the next issue of the M. M., he must be such a dear." He is, W. H., but he's desperately shy.

W. P., Brightlingsea.—"It seems funny that boys write to grown-up men like this. Do you mind, or do you laugh at the letters you receive?" Our heart is filled with warmth and love for Meccano boys, and there is no room for laughter. During the happy hours we spend reading your little confidences, we seem to be with you in your own homes, and to have known you always.

always.

W. P. T., Bellshill.—"You said that you have a warm spot in your heart for every Meccano boy. I wonder what is the area of your heart?" We are beginning to think it must be a tremendous size already, and there is still lots of room. We have put you there, William, in a specially warm place.

H. E. B., Bristol.—We have never heard of a Meccano kitten before, except the one on the cover of our No. 0 Manual. "Tiger" seems to be a most intelligent animal. Have you taught him to turn the handles of your Meccano models?

F. R., Tottenham.—You must not take too much notice of your mother when she says you will never win a prize in our Competition. She only says that to make you more determined. Work hard, and you will sur-

prise her some day.

M. A. L., Acton.—"My boy takes the Meccano Manual to bed with him every night, and he arrives at breakfast with it tucked under his arm." It is a pleasure to hear of such keenness in a boy so young. We read all your letters with great interest.

F. P., Westbourne Park.—"I have found out that if a pulley cord gets slack and slips, the best method of making it taut is to moisten it with water slightly."

This is a good tip for other Meccano boys.

A number of replies are crowded out of this issue.

A New Meccano Scientific Competition

The Meccano system of interchangeable standard parts besides being an admirable system of mechanical toy construction also lends itself to the construction of many models for use in demonstrating scientific principles. The models at present used for this purpose are very expensive and, further, a full set of models would only comprise a single-unit model for demonstrating each particular principle. As a consequence, it is usual in science classes to have the class split up into pairs of students, each pair on a different piece of apparatus. This necessarily reduces the efficiency of the teaching, inasmuch as the teacher has to distribute his attention over many different and separate lessons taking place all within the one class. Anything like collective laboratory teaching is therefore out of the question. With the same standard interchangeable Meccano parts, very many pieces of apparatus suitable for demonstrating different principles may be constructed, and, therefore, with a good outfit of Meccano parts a class may be provided with a number of identical scientific apparatus models all made for demonstrating the one feature, and, further, these models by being built up by the students themselves develop the constructional capacity of the student, and then, after such models have been utilised for a particular demonstration, the apparatus may be dismantled and the same parts used to rebuild other apparatus for demonstrating other features. Collective teaching is thus quite possible.

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We offer the following list of suggestions for mode! apparatus as being typical of the kind to which competitors should direct their attention. The list is not to be taken as exclusive, but is offered merely by way

of example:—

Model showing construction of braced girder work.

Model of quick return motion for a lathe or slotting machine.

Model of crank and connecting rod.

Apparatus Illustrating the principle of a centrifugal governor.

Model of Hooke's or universal coupling for driving shafts not in line.

Apparatus illustrating the orders of pulleys.

Apparatus for determining the efficiency of pulley systems.

Apparatus for showing the efficiency of spur gear trains and worm wheel drives.

Apparatus for illustrating the principles of the lever.

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The triangle of forces.

Apparatus for showing the thrust and tension in the jib and

Apparatus for determining the stress in a roof truss and for determining the forces acting at the crosshead of an engine.

Apparatus for demonstrating the principles of the inclined

The prizes will be as follows:—

Model of wheel and axle.

1st Prize .. One No. 5 Meccano outfit in wood cabinet.

2nd Prize ... One No. 4 Meccano outfit.

3rd Prize ... One No. 3 Meccano outfit.

There will be additional prizes consisting of No. 1 and No. 2 outfits, &c. Entries must reach us by December 31st, 1917, and must be marked "Scientific Competition." No entry form is necessary. There are no entry fees, or restrictions of any kind in this competition.

From a Prizewinner.

Dear Sir,—I have safely received this morning the No. 3 set of Meccano that you awarded me in the Meccanograph competition; please accept my very best thanks for it.

I cannot say I was altogether surprised to get it, for I felt if I did not win, some one would have to put in a great many hours of work to beat me. The designs I sent represented the pick of about 150 hours work, yet they had not been posted four hours before I found another movement that gave quite a fresh style of designs; this shows how practically inexhaustible are the possibilities of the machine, and emphasized to me that I might have very easily have been beaten.

My win has greatly interested the Meccano clan in this town, and I have given your letter announcing my win to one of your agents to post in his window. with one or two sample designs of somewhat similar nature to those sent in. This, I hope, may do you

some good.

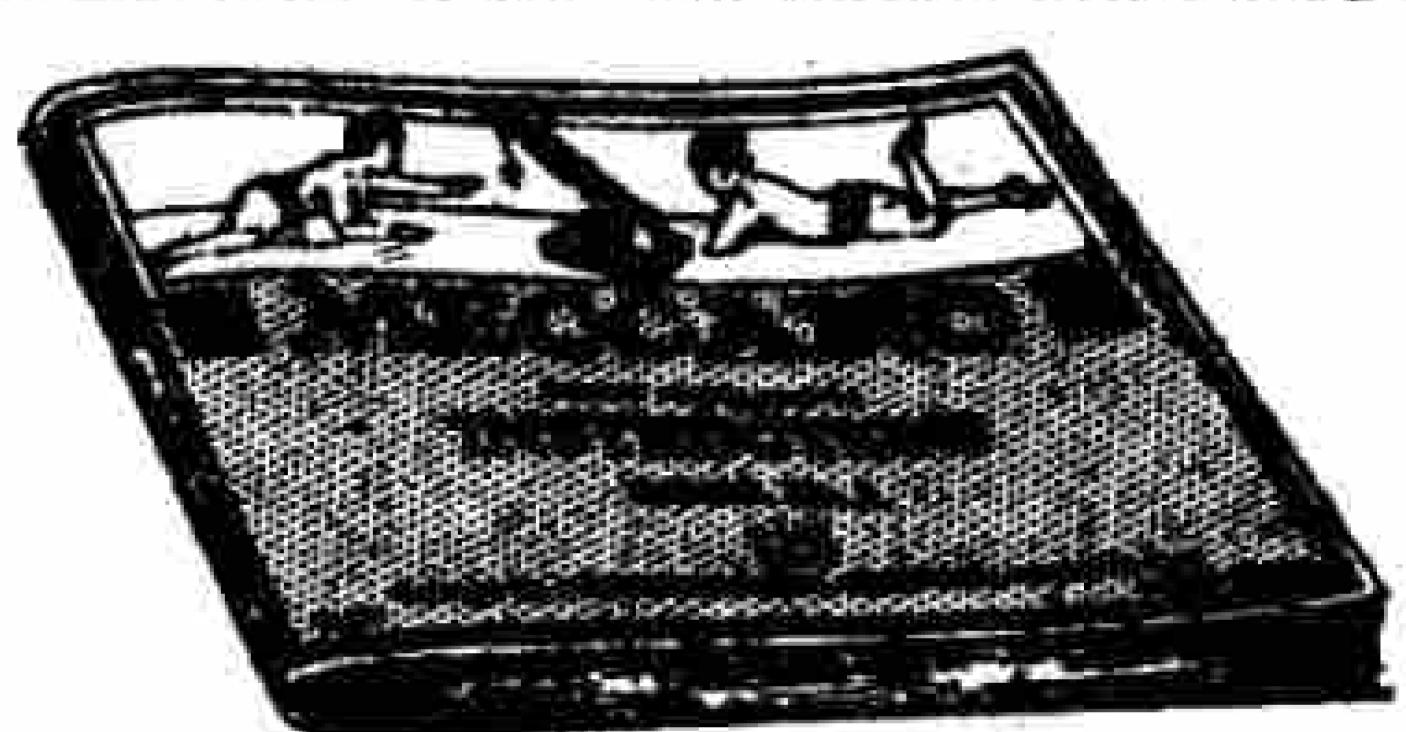
I like your new competition for models illustrating different scientific and mechanical principles. Not long ago I was trying to explain how the differential of a motor-car worked, and in the end, for it is a difficult thing to explain by word of mouth, I got Meccano out and made a small model showing the principle. I take it that it is such a model as that was that you wish to have entered in your new competition, though it is not included in your list.

Again many thanks, Faithfully yours,
(Signed) DAVID BRIGGS.

Sprocket Chain.

Our factory will be able to commence deliveries of Sprocket Chain in the course of a few days. Orders should be placed at once, through your dealer, or with us if you have difficulty. The price is 3d. per ft.

The New Meccano Manual of Instructions



Have you secured your copy of this fine new Manual yet? No Meccano boy should be without it. It means happy evenings the entire year through. If you were to commence now to make the 326 fine models which it contains, it would take you years to get through them. It establishes the superiority of Meccano once and for all, and it puts every other toy in the shade. It contains a large number of prize-winning models in the last two Meccano competitions, the work of boys, who have shown most extraordinary genius. It trebles the value of any outfit purchased last year or earlier. Get your copy at once from your regular dealer, or from us if you have any difficulty. Price 1s. 3d. or 1s. 6d. post free.

Prices of Meccano

0	Outfit	with	full	instr	uctions	for	buil	lding	ζ	4/6
1		do.			do.					7/6
2		do.			do.					13/6
3		do.			do.					20/-
4		do.			do.					32/6
5		do.			do.					47/6
6		do.			do.					115/-
	No.	6 in v	vell-fi	nished	cabinet	with !	ock a	and l	ey	
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Oa	conve	rting	a N	lo. 0	into a	No.	1		•	3/6
1a	do	. d	o.	1	do.		2			7/-
2a	do	. d	lo.	2	do.		3		•	8/-
3a	do	. 6	lo.	3	do.		4		5	13/6
4a	do	. d	o.	4	do.		5		2	14/-
5a	do	. c	lo.	5	do.		6) = 1 12		37/6

How to get the Meccano Magazine Regularly

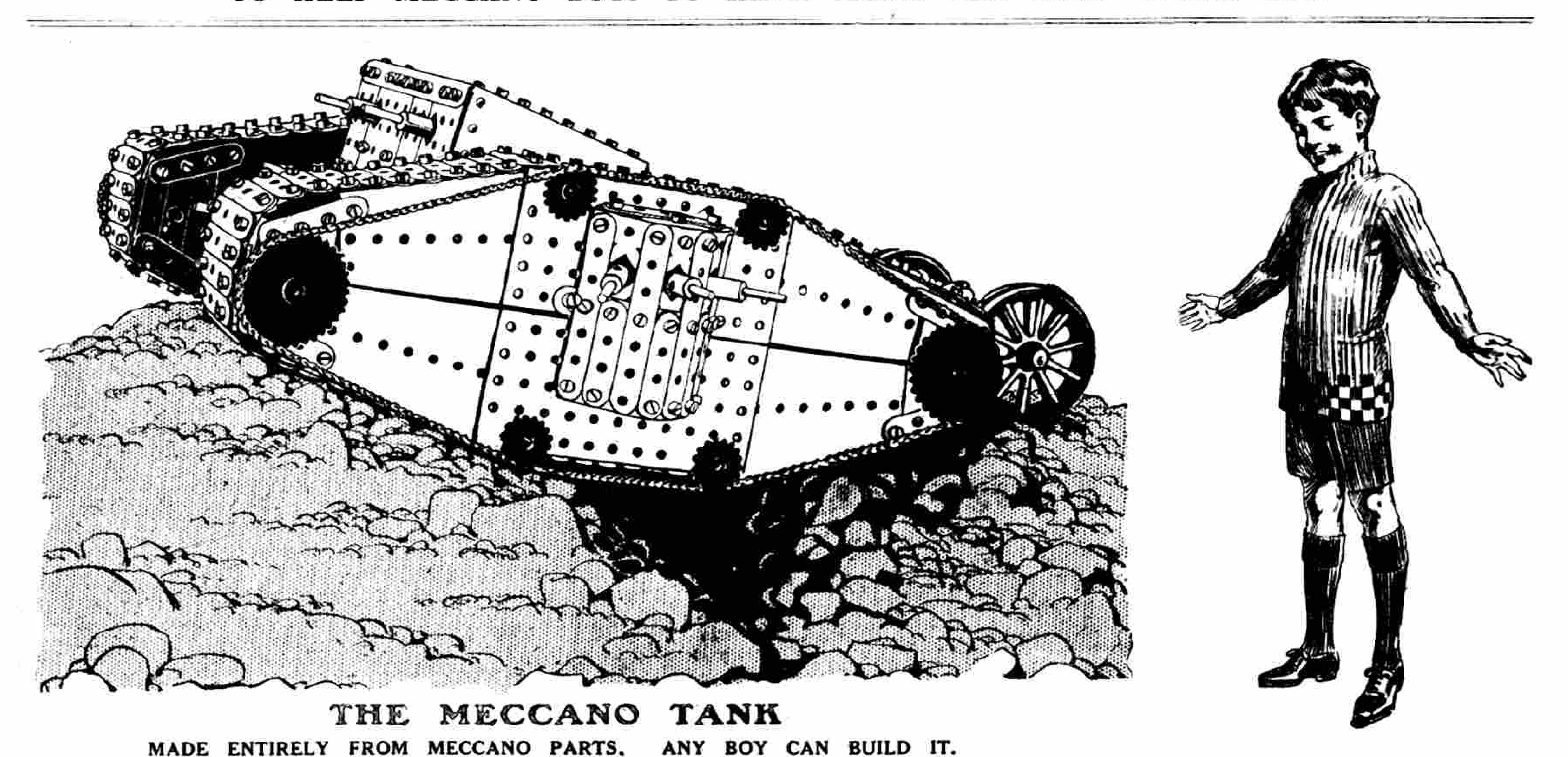
Under the new Government regulations we are unable to send the "Meccano Magazine" to any one except those who directly apply to us for it. If, therefore, you wish to become a reader of the M.M. it will be necessary for you to forward to us a request for it to be sent to you regularly, accompanied by 2d. in stamps for postage on the next four issues.

PUBLISHED BY MECCANO LTD.,
BINNS ROAD, LIVERPOOL.

Printed by Taylor, Garnett, Evans, & Co., Ltd., Liverpool, Manchester.

MECCANO MAGAZINE

TO HELP MECCANO BOYS TO HAVE MORE FUN THAN OTHER BOYS





Editorial.

Hurry Up.

It would be very hard indeed to resist such an eloquent appeal as the above, which we have received from an ardent Meccano boy who, by-the-way, seems to add considerable artistic talent to his Meccano skill. We have hurried up, and here is No. 5. In the face of war difficulties we cannot promise to publish the M. M. more frequently than at present; but we can, and do, promise that each number shall be full of good and interesting things. The next number will be published early in the New Year.

When Peace is Restored.

After the war we shall commence some fine new features in the M.M., and shall set to work to make it the most popular boys' magazine in the country. We have set out to make Meccano boys the happiest in the uni-

verse, and judging by our mail bag we are making excellent progress. The peace numbers of the M. M, will be great distributors of happiness and fun.

The Meccano Boys of the Future.

Every day we have evidence that Meccano boys stand in a class by themselves. When a boy becomes expert at Meccano his friends look up to him, his parents think better of him, and his employer knows that he has brains

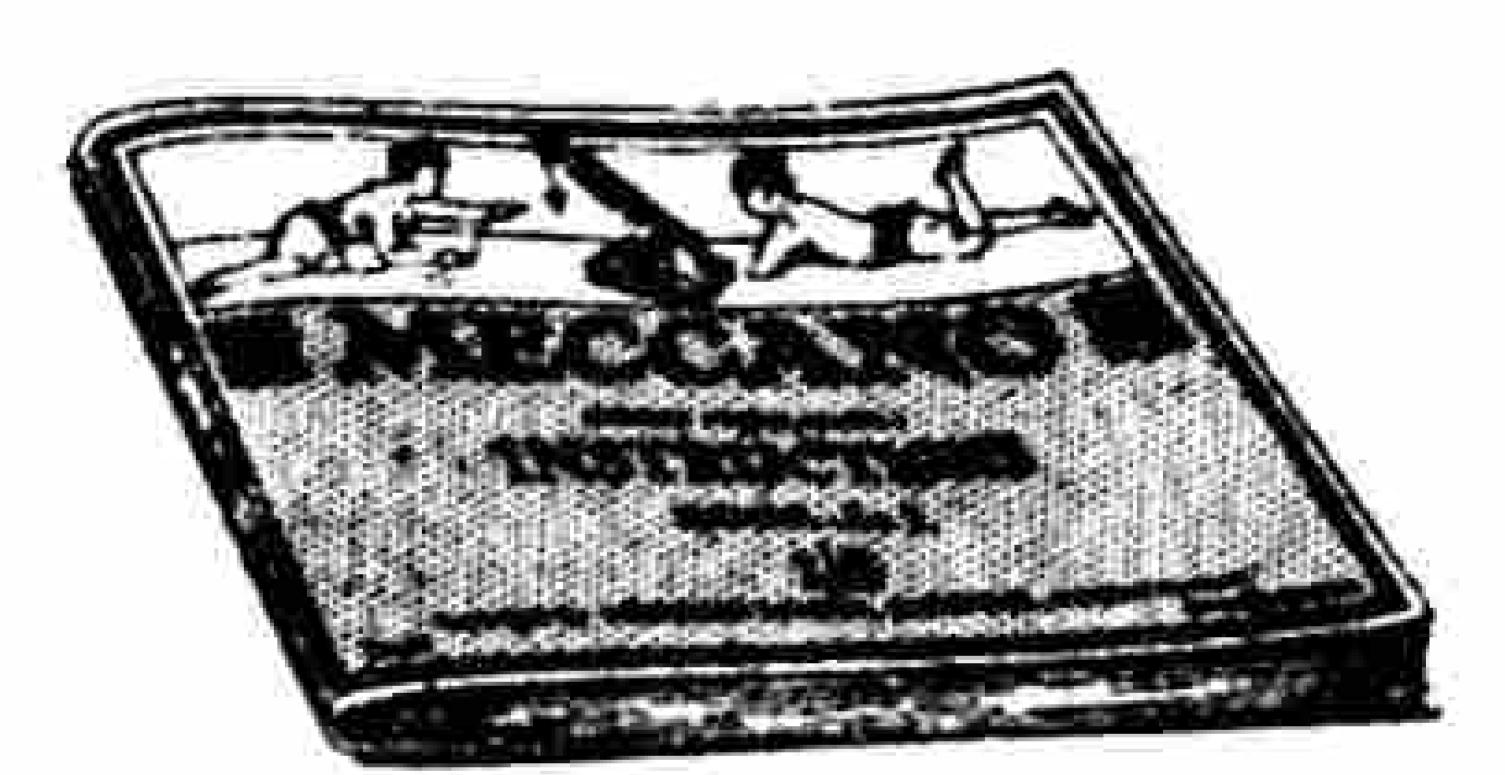
and knowledge. The time will shortly come when the qualifications of an expert Meccano boy will compel recognition from every educational authority and employer in the country. We have a scheme in preparation which will help considerably to bring this about, and which will add new joys to the Meccano hobby.

Meccano Manual of Instructions Book No. 2.

I have received-numerous requests for this supplementary Manual, but, unfortunately, owing to printing and other war difficulties, its issue has been delayed. It is in active preparation, and I hope to be able to announce the date of its completion in the next M. M.

The Californ

The New Meccano Manual of Instructions



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The Life Story of Meccano

By FRANK HORNBY.

(Continued.)

Nuts and bolts were my next trouble. I tried everywhere, but could not buy any which were small enough. I had to fall back on my own resources again, and make every nut and every bolt myself. How to fasten the strips together at right angles was a difficulty, and I had to devise angle brackets, and to make them out of sheet copper.

The dimensions of the strips, the sizes of the holes, and the distances between them which I adopted at that time have not since been altered, and I consider it remarkable that I should have been fortunate enough to hit upon what has proved to be the best standard dimensions with so little experiment.

I wanted my models to run on wheels, and by passing rods through the holes and fixing the wheels on them, this was quite an easy matter. No suitable wheels were to be bought, however, so I had to design these, and have them cast for me in a local brass foundry and then turned in the lathe. The trouble was to fix the wheels on to the rods. The usual collar and set screw would, of course, have been satisfactory, but at that time it seemed to me rather too expensive a kind of fitting for what I wanted, so I set to work to design what I thought then was a very effective substitute. This was the old Meccano key, which many of you boys will remember, which clipped on the rod and held the wheel in position.

It was a long weary time before I got all my parts ready for trying out, but every day I felt more and more sure that I was on right lines, and it was a great day for myself and my boys when I made up my first Meccano crane, which moved smoothly, running on wheels, and luffing and jibbing splendidly.

We took a delight in taking it to pieces and building it up again several times. Before we attached the jib, the base of the crane looked so much like a truck that we added a few more strips, and made it into a real truck, and you can just imagine the fun we had playing with the model in this way.

The whole system seemed so good to me that I consulted a patent agent to see if I could not get some protection for it, and on his advice I took out patents in this and other countries.

It had now become my unshakable opinion that every boy in the country would derive as much pleasure from my system as my own boys, and I determined that I would leave nothing undone to make it known throughout the length and breadth of the land. If I had known of the trouble and difficulties which I was destined to encounter, I do not think that I should have been anything like so eager and so confident.

Perhaps it was just as well for me that I did not know what a thorny path lay before me, or I might have been tempted to give up the struggle, as a well-nigh hopeless one. I thought it would only be necessary for me to show my invention to manufacturers and dealers when I would have them tumbling over each other to be the first to make and to sell it, but I was quickly undeceived. Dealers looked upon it with disfavour, as they considered it crude and unattractive-looking, and not likely to meet with a favourable reception from the public, and the manufacturers would not even look at it. None of these rebuffs, however, shook my confidence in the least.

(To be continued.)

MECCANO IN FAIRYLAND.

There is to be a big Mcccanoland scene in the Pantomime at the Palace Theatre, Manchester, which starts on Boxing Day, December 26th, in which there will be giant Meccano models for the fairies to play with; great Cranes, Bridges, and Windmills, which will be set in motion by a fairy touch. Boys and girls have played with Meccano for a very long time, and now the fairies have got to know all about it, and they are going to have great times with it this winter. They are going to rescue the Babes in the Wood with Meccano, and all Meccano boys and girls will want to go and see how it is done. That gifted young actor, Wee Georgie Wood, is one of the Babes, and he has written a letter to Meccano boys, which we reprint, and which tells us what to expect. He has promised to tell the readers of the Meccano Magazine all about his Meccano experiences in the next issue, and we hope, also, to be able to reproduce a photograph of the actual Meccanoland scene for the benefit of those Meccano boys who were not lucky enough to see the Pantomime.

Dear Meccano Boys.

A few days ago I received a letter which sent me nearly crazy with delight, and which has kept me busy ever since. Here it is:

Dear "Wee Georgie Wood."

I have bought you a giant Meccano outfit, many times larger than the biggest set made, and I want you to build some really fine models for the pantomime at the MANCHESTER PALACE this coming season. Knowing you are a keen lover of this wonderful toy, I leave everything to you.

All good wishes,

Yours faithfully,

JULIAN WYLIE,

on behalf of the WYLIE-TATE Pantomime
"BABES IN THE WOOD."

You see I am to be the Boy-Babe in this wonderful pantomime, and what could be better than for the fairy to present me with this wonderful Meccano, so that I can build a wonderful model which will take my little sister and me out of the woods where the little children are left by the wicked robbers?

I am not going to tell you of the new and marvellous models that have been invented for this splendid Xmas JOY-PANTO.—that would give the show away. All the things I make with my Meccano can be made with any No. 6 Outfit, and many of them with the smaller sets. Many of the beautiful dresses that will be worn at the Palace Theatre, Manchester, this coming yule-tide have embroidery (I hope I spelt that all right) worked by one of the prize-winning models in the last Great Meccano Competition. and lace trimming designed by me with the aid of the MECCANOGRAPH. That's my favourite model.

Of course, only a few of the vast army of Meccano boys can be at the pantomime, and so that there shall be no repining I shall write for you again and beg the Editor to put a



WEE GEORGIE WOOD

photograph in the Magazine of my stupendous efforts.

In conclusion, let me say I do not intend to enter any of my models in any of the future competitions, so now you will all have a fair chance. Isn't that good of me? But, of course, I'm a good boy—at times!

Yours Sincerely

Wes Georgie Wood.

P.S.—NOTICE TO BLACK-HAND GANGS, "CLUTCHING HANDS," and others. My Meccano set is kept on the stage, and is guarded by Robin Hood and his gallant outlaws.

My own set is a No. 6, and is looked after by me at home.

P.P.S.—All Robin Hood's gang carry revolvers, and I have a machine gun—made with Meccano.

AINew

£200 PRIZE CONTEST 1st Prize £50 in Cash. 140 other prizes

Another grand Meccano Contest has started, and we want every boy to have a try for one of the big money prizes. These contests help the Meccano fun along and make model-building worth while. If you invent something new you prove yourself to be an original thinker, and if there is merit in it you get well paid for your work. The first thing to do is to study all the models which you make from the Manual of Instructions, and think out improvements on them. This gets your brain at work on new ideas, and it is just those ideas which we want. If you are contented to simply copy the Meccano models as you see them, you will never be successful in inventing anything new.

Get to work now. See what the other fellows have done in the last two big competitions, and then go to work on something better. Do not forget the entry form; your dealer will give you one or we will post one to you on request.

Any boy can compete, and remember that more prizes are awarded for small models than for big ones. There are no entrance fees or restrictions of any kind. The entry form tells you just what to do, so write for this at once. The Competition closes on March 1st, 1918.

Meccano in Wartime.

Many boys no doubt look upon Meccano as just a beautiful toy, with which they can pleasantly wile away their play hours, and for that reason alone they cherish the greatest love for it. But there is a great and serious purpose behind it which takes it out of the realm of toys and playthings, and places it on a level with the finest and most beneficent inventions of modern times.

Even the war is emphasizing and developing its usefulness, and we are proud of the fact that leading authorities have recognised its great value, and have not hesitated to make use of it. In matters of this kind it is not permissible to say very much, but all Meccano boys will be interested to know that the leading Governments of the Allies have purchased Meccano parts to be applied to purposes of war. They know and appreciate the mechanical correctness of design of Meccano parts, and their accuracy of finish, which makes them adaptable to so many useful purposes. In addition to this, there is an army of Meccano users in every allied country, where the hobby is so well known and highly esteemed, designing and inventing with Meccano parts, new devices to assist in making vigorous and effective war upon our enemies. Many of those inventions come under our direct notice, and they reveal merits which make us feel proud of the part which Meccano is playing in the greatest war in history.

If you boys could go with us through the many thousands of models which have been submitted to us in our last grand £200 competition, you would be amazed to see the hundreds of splendidly designed armoured motor-cars, aeroplanes, seaplanes, submarines, siege guns, cannon, ambulance wagons, and "tanks" which young and old Meccano boys have designed, and you would realise with us how intensely the attention of boys and men is now riveted on the drama which is unfolding itself before our eyes.

The one use, however, to which Meccano has been put which fills us with most pride and happiness is that of alleviating the sufferings of our wounded heroes in Great Britain and in France. Meccano outfits of all sizes have found their way into hospitals and convalescent homes, where wounded soldiers spend happy hours, which would otherwise be very tedious, in building Meccano models, and in inventing new ones. We receive grateful letters of appreciation from them, and from hospital nurses and doctors, telling us of the soothing and beneficent influence which Meccano has exercised over men whose nerves have been shattered by the dreadful ordeals through which they have gone. Many of these soldiers in civil life are mechanics and engineers - men whose thoughts before they were called upon to fight for their country were entirely of machines and mechanical movements. In their newfound hobby they can for a time forget their terrible experiences, and live again in a world of machines and movement, and many of these poor fellows progress so far with their hobby that they have sent in new and ingenious models for entry in our big Meccano competitions.

The lot of British and French prisoners in Germany, both civil and military, is indeed a hard one, causing sorrow and anxiety in the hearts of wives and families left at home. It is a matter for both thankfulness and satisfaction to us that Meccano is assisting so much in alleviating the trials which our interned countrymen have been compelled to undergo.

large number of both British and Germany prisoners in permission Some of the outfits have been authorities. sent at the request of the prisoners themselves, and others have been dispatched from home by their relatives. You can just imagine for yourselves the joy with which a Meccano Presentation Outfit is received in one of those desolate internment camps; the keenness with which the poor prisoners gather round the fortunate owner and watch and help him to build beautiful Meccano models. We have received new models from interned prisoners in Germany, which for ingenuity and beauty of design will compare with anything which has been sent to us from any country. As soon as arrangements can be made we shall reproduce some of these in the Meccano Magazine, and we are sure that they will fill all Meccano boys with profound admiration and respect.

We feel sure that you will all agree with us that Meccano has come to its own during the war, and is worthily playing its part in these troublous times. Very soon we shall have much to say to you of Meccano in times of peace, and of the great part which it is destined to play in the important work of invention and education.

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Apparatus illustrating the orders of pulleys.

Apparatus for determining the efficiency of pulley systems.

Model of wheel and axie.

Apparatus for showing the efficiency of spur gear trains and worm wheel drives.

Apparatus for illustrating the principles of the lever.

Apparatus for showing the thrust and tension in the jib and tie rod of a crane. Apparatus for determining the stress in a roof truss and for determining the forces acting at the crosshead of an

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Apparatus for demonstrating the principles of the inclined plane.

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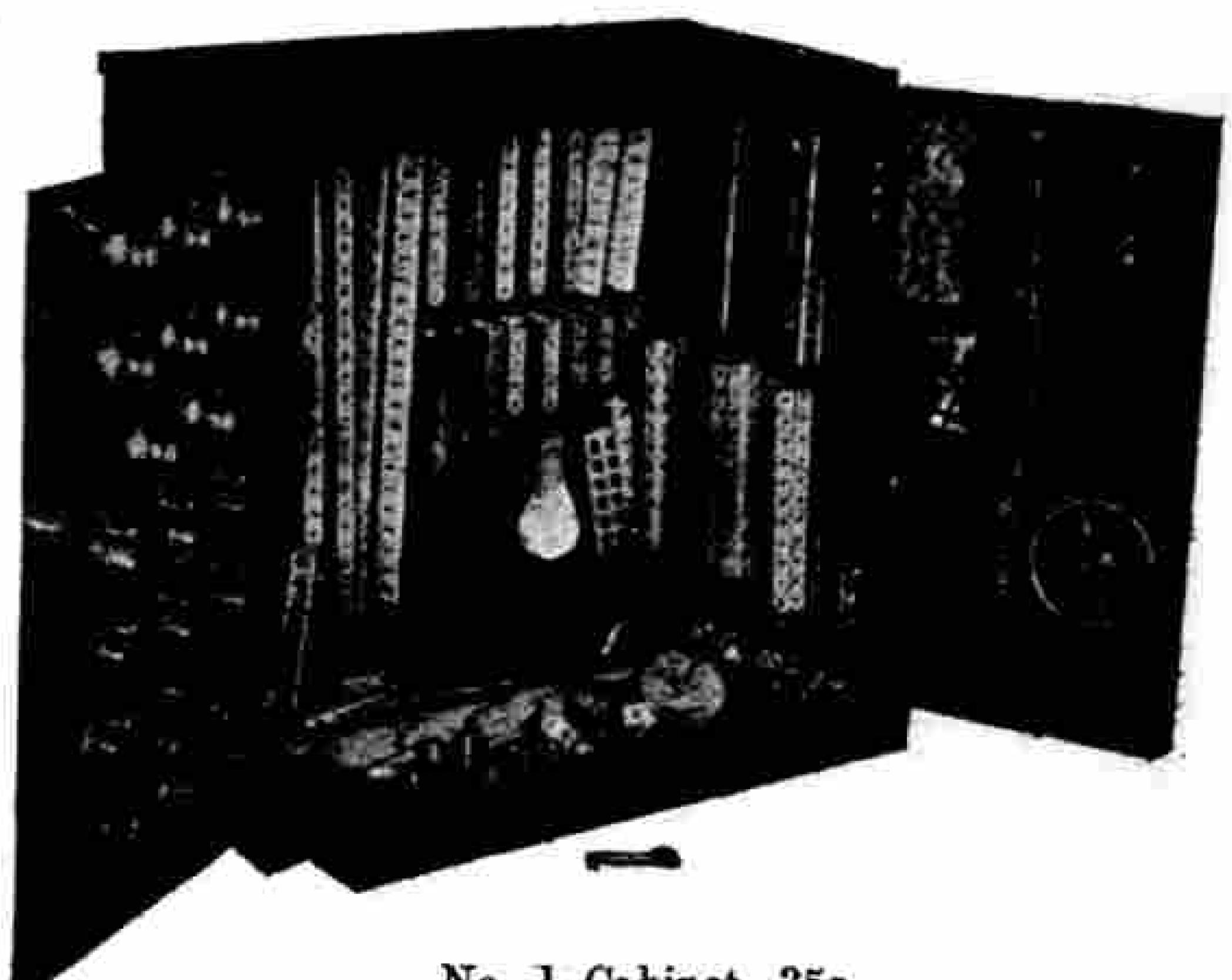
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One No. 5 Meccano outfit in wood cabinet.

2nd Prize .. One No. 4 Meccano outfit. 3rd Prize .. One No. 3 Meccano outfit

There will be additional prizes consisting of No. 1 and No. 2 outfits, &c. Entries must reach us by December 31st, 1917, and must be marked "Scientific Competition." No entry form is necessary. There are no entry fees, or restrictions of any kind in this competition.

Meccano Storage Cabinets



No. 1 Cabinet, 35s.

Splendidly made and finished in Cypress, with accommodation for the contents of any outfit up to No. 6. There are suitable hooks for the strips, girders, plates, wheels, &c., and a sliding tray with divisions, to hold the smaller parts. The dimensions of this Cabinet are 16‡in. high by 16in. wide by 8in. deep. It is fitted with lever lock and key.

No. 2 Cabinet, 60s.

This Cabinet is made in oak, beautifully finished, 18in. high by 17in. wide by 8½in. deep, fitted with lever lock and key. It holds the contents of any outfit up to No. 6, with suitable hooks for the strips, girders, plates, &c., and studs for the wheels. There is good drawer space for the nuts and bolts and other small parts. This Cabinet, well stocked with parts, is something for the Meccano boy to be proud to possess. Our illustration shows the Cabinet stocked with

Meccano parts, but, of course, these are not included in the prices given.

Prizes for Meccano Boys

We offer a prize of a Meccano Inventor's Accessory Outfit for the best essay on "How I came to take up Meccano as a hobby," and a similar outfit for the best essay on "The Meccano model which I like best, and why." Essays must not be longer than 500 words. There are no entrance fees, and no form of entry is required. The closing date is January 31st, 1918.

A NEW MECCANOGRAPH COMPETITION

The Meccanograph has excited the keenest interest amongst boys, and we have received many requests for another competition. We offer a No. 1 Meccano Storage Cabinet for the best set of 12 designs made with the Meccanograph. All entries must be received by January 31st, 1918. No entry form is necessary.



OUR MAIL BAG

The Editor has a little talk in this column with his Meccano boys. Whether he has space to really to them all here or not, he is always glad to hear from them. He receives hundreds of letters each day, and only those which deal with matters which are likely to interest other Meccano boys can be dealt with here.

Correspondents will help the Editor is they will write on one side the namer only

o: the paper only.

C. J. Smith, Bletchingley.—You work long hours, and we are very glad you have felt no ill-effects. You are serving your country well in helping to provide munitions for our fighters. We are pleased to hear that you still find time to invent Meccano models.

W. Platt, Walsall.—Meccano parts are real engineering parts, and that is the reason they are helping you in your work. Your father knows this, and that is why he encourages you to invent with Meccano.

R. S. Preston, Colne.—As you say, the correspondence we receive from all over the world "makes our heart glad." So far England has taken more Meccano prizes than any other country, but French and American boys are struggling hard for first place.

C. Plastow, Kew Gardens.—Mr. Hornby takes a great interest in every Mcccano boy and in his work. Don't be discouraged; there are many more prizes

waiting to be won.

John Smith, South Shields.—We are very interested in knowing that your teacher has commenced a Meccano class for half an hour three days in every week. Your friend "Diddle" is a wise boy, and has rendered a service to your teacher and to us. Let us know more about your Meccano club, in which we are most interested.

Ronald Ne Vard, Southend, —That k you for your very interesting letter describing the air raids on your town. Southend does credit to our nation in taking them so philosophically. When you tell us that so many of you use Meccano, we begin to understand why you are such a steady, sturdy lot.

A. E. Martin, Walthamstow.—Your son is a clever boy to win two substantial prizes in successive years. Thanks for your testimony to the value of Meccano.

W. Partridge, Horwich.—"Each letter I receive from you is a treasure to me. The new Meccano Manual is absolutely IT. There are hundreds of new ideas in it."—There is no doubt, W. P., that this is far the best Manual we have issued, and no Meccano boy should miss it.

C. D. Gadd, Didsbury.—We are pleased you like your Storage Cabinet so much. Your suggestion for a

Meccano Diary is noted.

Private W. Bell, Midlothian.—"You will see that I am now in the Army. I owe a great debt to Meccano. I attribute my position as Motor-cycle Mechanic to it having unearthed and developed my engineering abilities."—We receive many letters like yours, and we are proud of the fact that so much knowledge acquired from Meccano is now being used in the service of our country.

D. C. Ramsden, Leeds.—"I am delighted with my Meccano Storage Cabinet. I only wish I had enough parts to fill it."—As your father says, these cabinets are handsome pieces of furniture, and splendid for

keeping Meccano parts in an orderly way.

G. Peck, Gloucester.—"I have only two faults to find with the Meccano Magazine. It is not big enough, and it is not published often enough."—We are afraid we must wait until the end of the war before these faults can be rectified. There are many difficulties to be contended with just now, but later you may look for great improvements.

A. Mason, Colne.—We are glad to hear from you again, and we hope you won your scholarship. Entry

form has been dispatched to you.

W. H. F. Allen, South Tottenham.—"I never give up anything I aim for, so look out for me in the next competition."—We wish you success. If you maintain this spirit through your life, you will go a long way.

C.F.D.H., Cambridge.—I am rather an old Meccano boy, being 44; but it may be of special interest to you to know that I am blind, but I find myself able to make models with Meccano and it affords me pleasant recreation. Perhaps this information may yet show the world another use to which Meccano can be applied. I fear there will be many return sightless from the war."—There are thousands already, and unhappily there will be many more. You would be pleased to know how many of them share with you the joys of Meccano building.

R. B. Ralph, Chepstow.—"I had another make of constructional toy before, but I soon chucked it for Meccano."—That is what happens in all cases sooner or later. Now you are on the right track, the long evenings you complain of will seem all too short.

E. Brown, Calne.—Thanks for your suggestion for a Meccano Aeroplane Outfit. There are many difficulties which it would take a long time to explain to you, but we will think it over. There is no doubt about its usefulness.

T. Westell, Letchworth.—We hope that this time sickness will not prevent you from going in for the big Meccano Competition. Your gardening should keep you fit. We note that you intend to go on build-

ing Meccano models until you are 100.

D. Blake, Salisbury.—"I do not know what my little boy would have done without Meccano last winter when he was ill for seven months. His doctor said he was a clever little mechanician."—You should certainly have entered those models which he invented in the competition. We trust he is fully restored to health.

C. Clark, Brigg.—We are glad your Meccano Club is going along splendidly. Report progress as you go along. We are at work now on Book No. 2 of our Manual, but getting printed matter out these days is a slow business. Thanks for your hope that we are "in the pink." We are

A. P. Rollett, Gainsborough.—"I got first-class honours in the Junior Cambridge Local, and I have won two prizes in your Competitions and am already on the warpath this year. I wonder how big your letter-box is. I notice that all the brainiest boys at our Grammar School have Meccanos."—We found your letter very interesting. Your prize-winning record is a good one, and we hope you will carry off a big award this year. Our letter-box is a very big one; but if our Meccano boy correspondence increases sufficiently we shall not mind installing a still bigger one.

M. A. Thomas, Carnarvon.—"I'm only a girl. Do you think it will be possible for me to become an engineer?"—It seems to us that women and girls are doing pretty nearly everything these days, and, if you have enough perseverance, we should not like to prophesy failure for you. We have heard of your famous great-uncle, and a fine engineer he was. Thanks for the poetry. The sentiment is fine and, as you say, it doesn't matter about the metre.

Etta Wilkins, Cheltenham —It seems to us that Meccano girls are, if anything, more determined than Meccano boys. Your mother will change her opinion of you when she sees your competition models. We wish you the best of luck. We are not quite "flooded out" with letters yet, and should be glad to have another one from you. Come to see our factory when you visit Liverpool.

R. Bain, Crieff.—It certainly does say a lot for Meccano when 16 out of the 17 boys in your class described it as their favourite toy. You need have no fear about our keeping the *Meccano Magazine* going, and, when peace is restored, you will see great improvements.

Hector Hartley, Romiley.—"Can you come over to Romiley to see me? You have more money than me, and you can come to our house."—This is very nice of you, Hector, and if we could spare the time nothing would give us greater pleasure. We hope to see you here some day.

L. Cunliffe, Newtor Heath.—We are glad to know about your Meccano kitten, Jerry. He evidently thinks you have bought your outfit for his benefit. Thank him for sending his best wishes to us.

J. Houston, Dunston-on-Tyne.—"If a competitor sends in several good models, will he be awarded several prizes?"—We want competitors to send in all the models which they invent. There is no limit to the number of prizes which one competitor may win.

Wm. Callen, Walton.—You are wrong in thinking that only boys with No. 6 outfits can win prizes. If you will look through the prize list you will see that far more awards are made to small simple models than to complicated ones. We quite understand your "thrill of pride" at being numbered amongst the great army of Meccano boys.

F. P., Geashill.—We can hardly tell you how much pleasure it gives us to know that your 9-year-old son, who is so afflicted, derives enjoyment from playing and inventing with Meccano. Would he care to write

us a little note now and again?
T. Lorimer, Blyth.—

"Lords and dukes,
Put down your books,
Put right your hair
And go to the fair,
They are selling Meccano.
Meccano is a joy
To your boy;
It makes him a happy
Little chappy."

—Shakespeare might have written better poetry, but he couldn't have come closer to the truth than you have done in the last bit, Thomas.

R. Mitchell, Luton.—There is no objection to your using what extra parts you require, over and above your outfit, in making up your competition models. Sorry to hear that nearly everybody in Luton has got the mumps.

M. M. C. Drahaman, Wellawatta.—We are pleased to know that so many boys in Ceylon are interested in Meccano. We shall be very glad to have particulars of the new models which you have invented. Thanks for your appreciation of the Mcccano Magazine.

J. Maclean Todd, Oxford.—"I have thought of about 15 new models which I hope to send up in the Meccano Competition."—We shall be very glad to receive them. We think that your best chance of success would be to select one or two and devote all the time you can spare to making them as perfect as you can get them. You have our best wishes.

G. W. Gunn, Glasgow.—We are pleased to hear you have decided on an engineering career, and have already started your apprenticeship. The firm you have joined is a good one, and we can see from your letter that you are making progress. We shall expect to see some first-rate models from you in future

competitions.

G. Brown, Blackburn.—"One of my friends has sent out a Meccano outfit to a prisoner of war in Germany, and he says in his dull camp he is the envy of all his fellow prisoners, who sit and watch him day after day making his models."—We are always gratified to have proofs like this that Meccano is bringing solace to our war sufferers.

Prices of Meccano

0	utfit with full	instructions for build	ling 4/6
1	do.	do.	7/6
2	do.	do.	13/6
3	do.	do.	20/-
4	do.	do.	32/6
5	do.	do.	47/6
6	do. No. 5 in well-fin	do. ished cabinet with lock ar	115/- ad key.

Accessory Outfits

No.							
0a	converti	ng a N	o. 0 i	to a N	o. 1	• •	3/6
1a	do.	do.	1	do.	2		7/-
2a	do.	do.	2	do.	3	•	8/-
3a	do.	do.	3	do	4		13/6
4a	do.	do.	4	do.	5	•	14/-
5 a	do.	do.	5	do.	6		37/6

Meccano Outfits with Electric Motors



These are the regular Meccano outfits with the Meccano Electric Motor added. Each one is a magnificent present for any boy.

No	. lx	with	non-reversing	motor	13/6
* 2 3	2x	7.7	9.9	77	19/6
• •	3x	9.9	reversing moto)I.	30/-

Each Meccano outfit is complete with all parts and tools necessary for building models. Full instructions are included and the youngest boy can commence to build at once without study. An accessory outfit may be purchased at any time enabling bigger and more interesting models to be built. Additional parts may also be purchased separately, at prices given in our published lists.

Remember that though boys play with Meccano for pleasure, and though they get more genuine fun from it than from any other toy, it also gives them a sound knowledge of engineering. Through playing with Meccano, many a bright boy has been started on a prosperous career in one of the most important and profitable professions—engineering and mechanics.

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