

MECCANO



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 interest other Meccano boys can be dealt with here.

Correspondents will help the Editor if they will write on one side of 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 wishbone 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 godly 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., Camba.

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 soon.

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., Camba.—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 themselves.

F. S., Darlington.—"I was a user of Meccano when three years old. That beats all records, does it not? I 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 15½ 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. G., 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 old 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 of 10.

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

No. 0	Outfit with full instructions for building	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. 0a	converting a No. 0 into a No. 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/-
5a	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. 1x	with non-reversing motor	13/6
" 2x	" "	19/6
" 3x	reversing motor	30/-

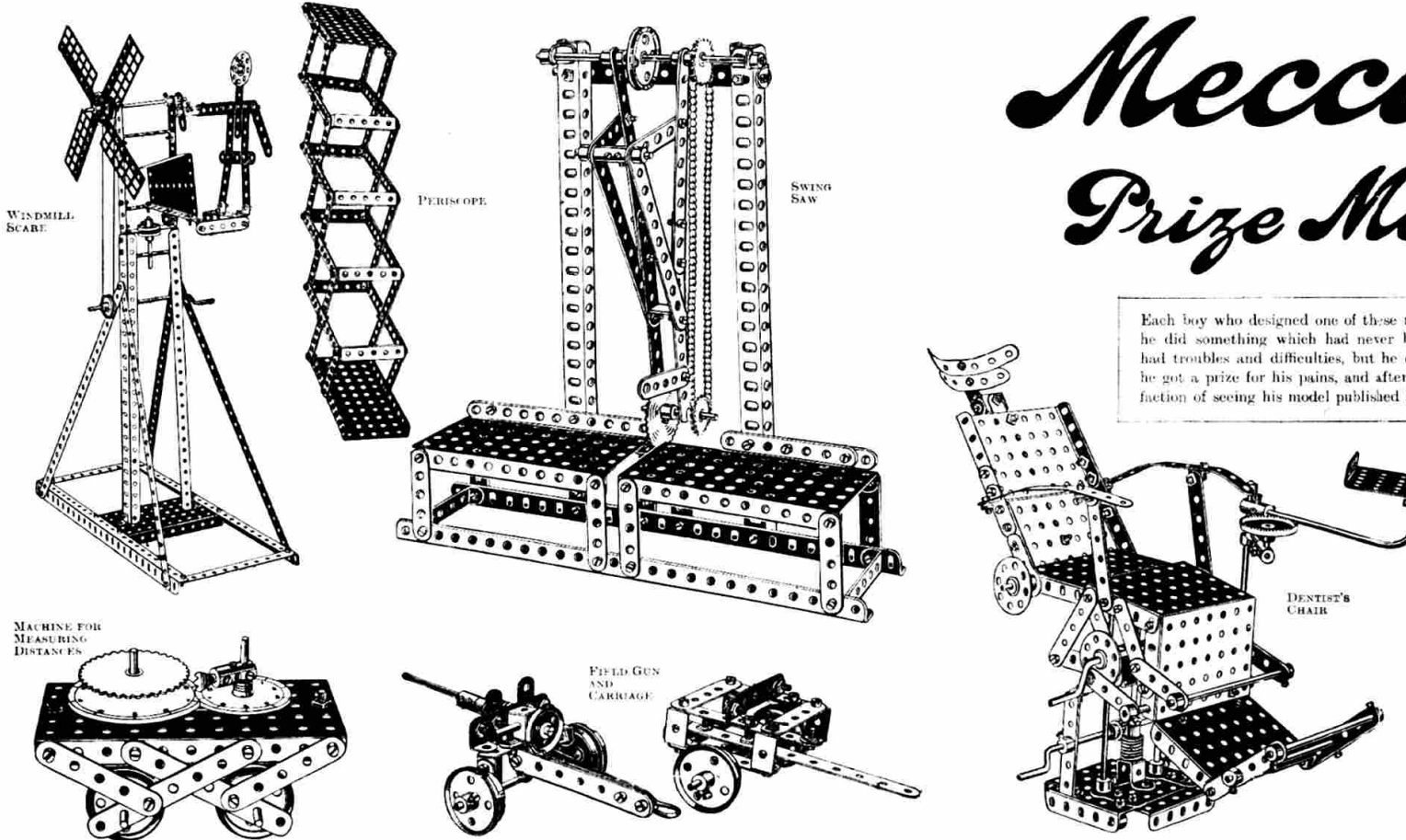
Each Meccano outfit is complete with all parts and tools necessary for building models. Full instructions are included and the youngest boy can commence to build at once without study. An accessory outfit may be purchased at any time enabling bigger and more interesting models to be built. Additional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

PUBLISHED BY MECCANO LTD.,
BINNS ROAD, LIVERPOOL.

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

Meccano Prize Models



Each boy who designed one of these models did something which had never been done before. He had troubles and difficulties, but he overcame them and he got a prize for his pains, and after the publication of seeing his model published in this magazine.

All these models won prizes in the last grand Meccano Competition.



The Meccano Inventor's Accessory Outfit

No Meccano boy should be without this accessory outfit. No matter what regular outfit you have, the parts are useful. It contains a set of large wheels which can be used on motor cars, trucks, &c., two sizes of sprocket wheels with a length of chain for giving a positive drive and dispensing with the usual cord, which is apt to get slack and slip round the pulley. It also contains a supply of the new braced girder for building large, imposing models. There is also included in it a supply of heads, which are indispensable in building a Meccano Loom. It also contains other parts previously included in the higher-priced outfits only. It is a great help to the young Meccano inventor who desires to extend the scope of his outfit. The cost of the Inventor's Accessory Outfit is 7s. 6d.

"Dad"

When father has money we call him "Father." When he teaches Sunday School, we call him "Papa." If he shops with mother and wheels the baby carriage, we call him "Pa." But if he buys us Meccano and gives us a hand with the models till his fingers ache with screwing up the bolts with them instead of using a screw-driver, we call him "Dad."

World-famous Meccano Beats Germans Hollow

This is the verdict of Mr. A. W. Gamage, of the firm of A. W. Gamage, Ltd., London, expressed in an article which he has just written for "Pearson's Weekly." Mr. Gamage writes: "Lackily Germany did not capture every section of the toy trade. In some directions we are still pre-eminent. Britain's soldiers were second to none; they were perfect in every detail. *The world-famous Meccano toys beat the Germans hollow.* Our rubber balls were excellent, and our big wooden toys licked creation."

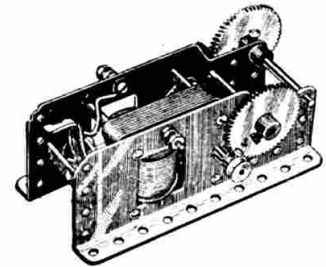
Mr. Gamage's verdict on Meccano is endorsed by every toy dealer and every boy in Great Britain. In some directions the Germans certainly did not have it all their own way, and when this terrible German-made war is over it will be our endeavour to see that much of the toy business which was formerly held by Germany and Austria will be wrested from those countries, and that the British public will know that when they are buying toys they are supporting British workmen in British factories.

Meccano Outfits as Prizes

The following well-known publications are offering Meccano Outfits as prizes in the competitions which they are running this winter:—

- "The Scout,"
- "Home Notes,"
- "Pearson's Weekly,"
- "Everywoman's Weekly."

Some of you clever Meccano boys should have no difficulty in securing these outfits.



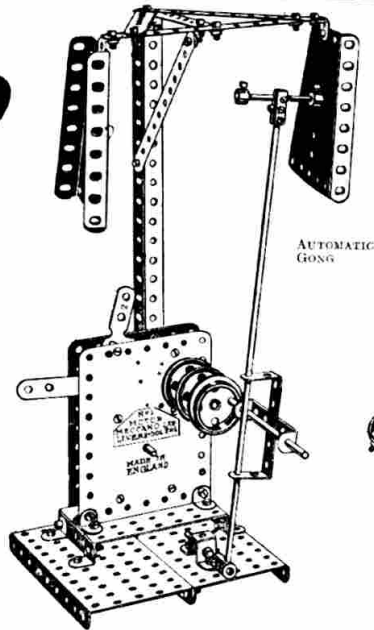
The Meccano Electric Motor

This is a perfectly designed motor which makes it possible for a boy to run his models continuously. Properly geared, it has enormous lifting power. It has the Meccano equidistant holes along the base and edges, and can be fitted into the Meccano models without difficulty. It is simple to use, and there is no danger whatever attached to it. It may be run with dry batteries, an accumulator, or direct from the home supply with a transformer. Where possible, we recommend that an accumulator be used giving four volts. This lasts for a long time, is very reliable, and can be easily recharged at small cost.

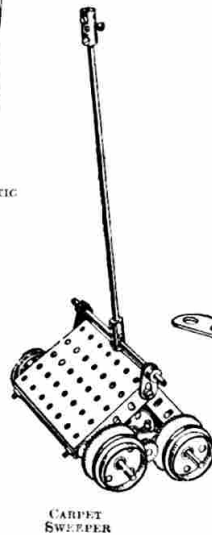
The motor is supplied in two patterns, one without reversing gear, costing 7s. 6d., and the other with reversing, stopping, and starting gear, costing 12s. 6d. Instructions go with each motor. Ask your dealer to show it to you.

Meccano Models

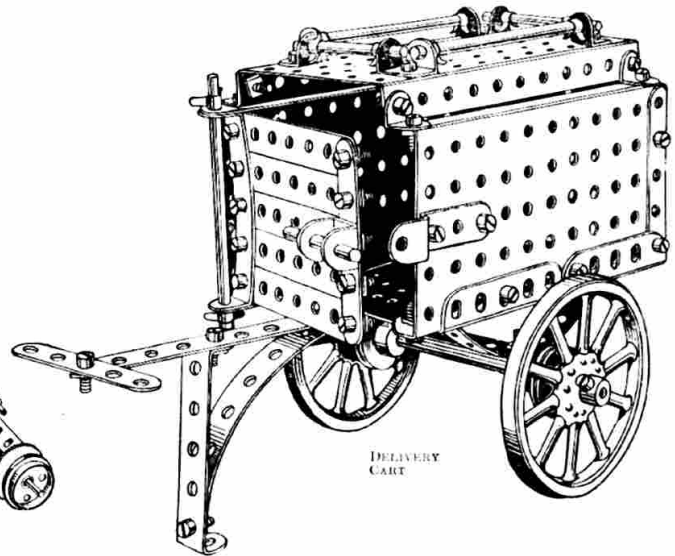
one of these models is a discoverer ; h had never been done before. He ulties, but he overcame them. Then ains, and after that he had the satis- del published here.



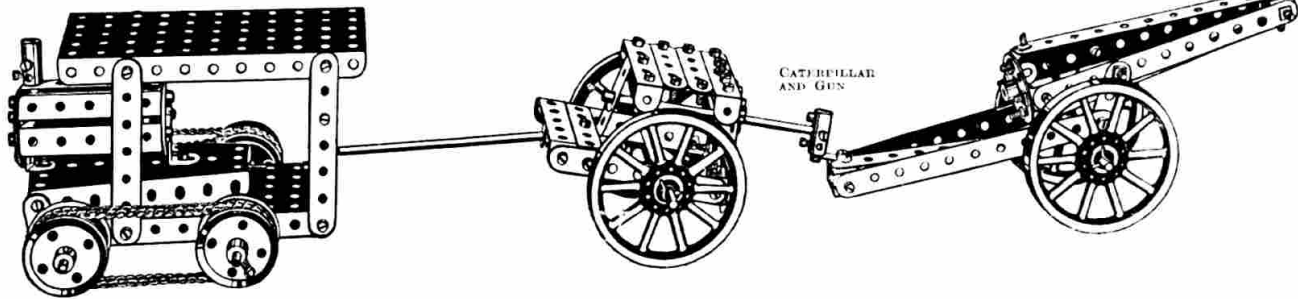
AUTOMATIC GONG



CARPET SWEEPER



DELIVERY CART



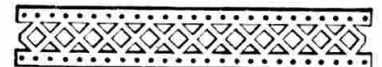
CATERPILLAR AND GUN

They are included in the new Manual of Instructions

A New £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.



The Meccano Braced Girder

This is a new flexible girder enabling large constructional models to be built, such as bridges, elevators, towers, etc., and forming a most effective decoration for many of the smaller models. It is a perfectly designed part on the lines of actual girders used in building construction. It is sold in two sizes, 1 1/2" costing 1s. per 1-dozen, and 1 1/4" costing 1s. 6d. per 1-dozen.

The Meccano Crank and Coupling

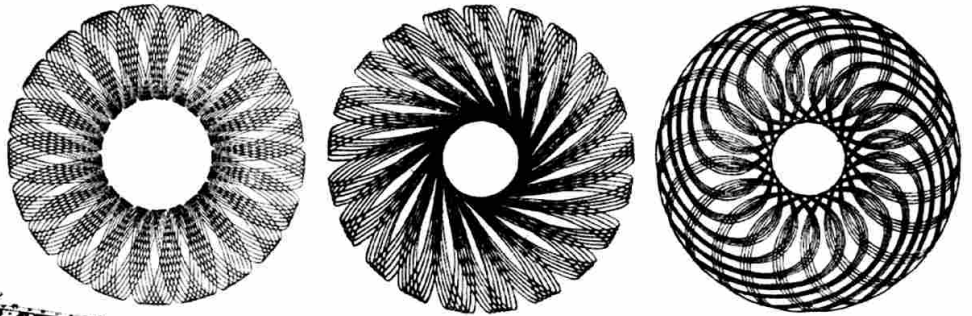
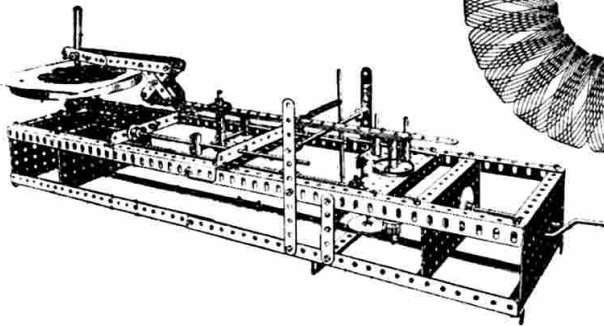


These are specially patented parts without which it is impossible to build many of the best Meccano models. They are perfect in design, and are adapted to hundreds of different uses. It is such parts as these which give Meccano its supreme position amongst constructional toys. New uses for them are being devised every day, and every Meccano boy should study them carefully. The cost of either crank or coupling is 6d.

More Prizes for Meccano Boys

We often receive very interesting letters from enthusiastic boys telling us of the pleasure they derive from their Meccano outfits, and some of these letters show unusual literary merit. We now offer a prize of a No. 2 Meccano outfit for the best essay on "Meccano as a Toy," and a similar prize for the best essay on "Meccano as a help to the study of Engineering." The essays should not consist of more than 500 words, and must be received by us not later than January 1st, 1917. Any user of Meccano may try for these prizes.

The Meccanograph



These are a few of the wonderful designs which may be made with the Meccanograph. By simply altering the adjustments slightly, thousands of exquisite designs may be made, all different. There is no difficulty anywhere, and even a young boy can make the machine for himself and use it. It is only necessary to put the paper on the table, place the pencil in the proper position, and turn the handle. The machine itself gives you the design. We ourselves are experimenting with this machine all the time, and we shall have further useful suggestions to make regarding it in the next issue of the *Meccano Magazine*. In the meantime, we offer a prize of a No. 3 Meccano Outfit for the best set of 12 designs made with the machine sent in to us before January 31st, 1917. Full instructions for building this model will be found in the new Meccano Manual of Instructions.

The Premier Toy

Every boy who takes up Meccano finds it the liveliest and finest hobby which ever brightened up his play hours. It gets hold of you. Once you take it up, you never drop it again. It takes for ever to do all the fine things possible with Meccano. Scores of boys who have had their outfits for many years write to us and say that Meccano is the only winter hobby really worth while.

When you are building a Meccano model, you feel all the while that you are getting somewhere, that you are doing something, and that you will have something to show when you are through. And, really, a finished Meccano model is a thing to be proud of. That isn't all, though. You know just how you feel after you have got through a game of football, or cricket, or had a round of golf. You know perfectly well that next time you can play a much better game. That's exactly how you feel about Meccano. You can always see how to improve on your work next time. The most perfect machine in the world can be improved upon, and the most perfect Meccano model can be bettered. And, do not forget that when you are improving a Meccano model you are inventing just as surely as the man who invented the motor-car or wireless telegraphy, or the telephone; and inventing pays these days. Scores of engineers and designers, architects and others, use Meccano in their business, and they tell us there is nothing so good for working out their ideas and inventions. The reason is that Meccano parts are just like parts of real machines, and they work beautifully together and give you all kinds of both simple and complicated movements. All the Meccano parts are called by their right engineering names, and you learn them off without any trouble. You come to know how big engineering feats are accomplished, and you take the biggest interest in them. Thousands of boys all over the world owe their success to the time they put in on Meccano, and whether you become an engineer or not a little sound knowledge of engineering and mechanical movements is always useful.

MECCANO



Gems from our Mail Bag

G. T. Torquay, writes: "My Meccano boy is immensely pleased with the Inventor's outfit, and we both think the Girder Strips are lovely. I don't suppose you ever get to know the ages of your many little engineers, but I often wonder if my son is one of the youngest? He is only seven, and has been a real keen—and more or less inventive—Meccano boy for two years. I can't tell you when it was that he was on wet days."

It is always specially gratifying to us to know that Meccano is giving pleasure to very young boys. We wonder if any of our readers can beat this record?—Ed.

N. L. J. writes us from Batavia, Illinois, U.S.A.: "It gives me pleasure to state that furnishing my son with his Meccano outfit we found to be one of the very best investments that we have been able to make for him. The only difficulty experienced is to get him away from his planning and work long enough to give him the necessary food and rest."

Yours is the kind of letter we like to receive, N. L. J. An eminent engineer once told us that he preferred to have Meccano boys in his office. They came to him fascinated with engineering problems, which was a good start, and they had also learnt habits of diligence and orderliness.—Ed.

W.K., of Walney, writes: "I am a user of Meccano, and I and all my pals say it is the best hobby a boy can have. One lad has a ——— outfit, and he says it is as good as Meccano. He nearly got mangled, and has a thick ear and a swelled nose, and went out of school on his neck."

We hope this gentle treatment convinced the erring one.—Ed.

M. A. L. writes from Tarquah: "With much regards to your Meccano book which I am saw in 'London Opinion' to-day and it was very funny as you described to all the nations. Being that I am in need of, but I hope the discretion shall pay me or shows me the way of doing good and to leave in a good health and I beg to ask you too if ever you know somebody else called Astroligier. Please direct me their addresses but when something discurtion to me I has been lost all—but do not overcharged me for your Meccano Prizes. Yours newly customer a Trial."

You seem to be in a dreadful trouble, M. A. L. We wish we could help you.—Ed.

K. A. Alvechurch, writes: "I live well out in the country, and Meccano is my only amusement. I have had it about five years now, and in all the outfits I have not had one part that did not fit exactly. It is an ideal toy."

This is an excellent tribute to the thoroughness of our Inspection and Testing Departments.

Prices of Meccano

No.	Description	Price
0	Outfit with full instructions for building	3/9
1	do. do.	6/6
2	do. do.	12/6
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.	Description	Price
0a	converting a No. 0 into a No. 1	3/3
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/-
5a	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. 1x	with non-reversing motor	12/6
" 2x	" " "	18/6
" 3x	" reversing motor	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.

PUBLISHED BY MECCANO LTD.,
BINNS ROAD, LIVERPOOL.

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

the models, and the still greater possibilities which the new Meccano parts have opened up. I want to tell you also of my experiences in advertising Meccano, how we came to know and use the wonderful boys whom you see so busily working at the models in our Magazine advertisements and in our booklets. I should like to take all Meccano boys through our manufacturing departments and show them the fascinating processes by which our raw materials are converted into the beautiful parts which they build with, but our factory, big as it is, would never hold them all. Still, I hope very shortly to tell you many interesting things about this side of our business.

J. Hornby

Managing Director, Meccano Ltd.

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.

The "Evening News" says Meccano is First Favourite

In September this year the "London Evening News" offered prizes to its boy readers for a description of their favourite toys. The following extract from their issue of Sept. 30th shows what happened:—

To-day I am giving the result of the recent competition set for Section A, the members of which were asked to describe their favourite toys.

The prizes have been won by two boys, whose entries are most tidy, and the writing excellent in each case.

With few exceptions the favourite toy among boys is Meccano, with which the most wonderful toys may be constructed. I recently saw a fine bridge which opened, and a large windmill. I have also seen a crane.

So the first prize is awarded to a persevering nephew, Dennis Chaddock, who values his Meccano set more than anything else in the world. This is what he says:—

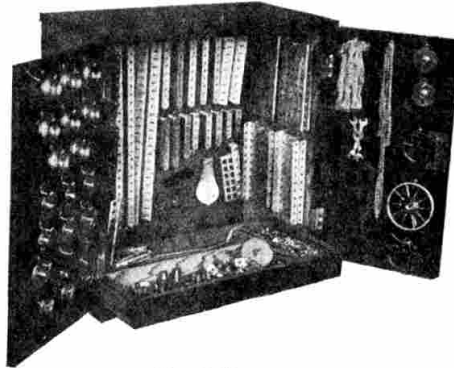
"My favourite toy is called Meccano, to build up real models and make them work. It is made of steel and brass, no wood. There are angle girders, steel plates, long and short strips, with holes in them to put nuts through and bolt them the other side.

"There are different sorts of wheels—flanged and grooved wheels, pulley wheels, worm wheels, and cog wheels of three sizes, contrate wheels, and bush wheels.

"A Meccano clockwork motor was given to me on my birthday to drive the models."

Meccano Storage Cabinets

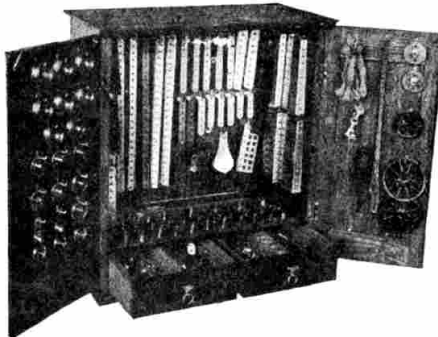
These are just what Meccano boys require to store their Meccano parts in when not in use. The cardboard boxes in which most of the outfits are supplied, whilst strongly made, will not bear hard usage, and, if they become damaged, the parts are liable to get scattered or lost. The Meccano Cabinets provide strong, orderly accommodation for good supplies of each part and add to the comfort and pleasure of model-building.



No. 1 CABINET.

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 16½ in. high by 16 in. wide by 8 in. deep. It is fitted with lever lock and key.

No. 1 Cabinet, 35s.



No. 2 CABINET.

This Cabinet is made in oak, beautifully finished, and an ornament in any house. It stands 18 in. high by 17 in. wide by 8½ in. deep, and is 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. No. 2 Cabinet, 60s.

Our illustrations show the Cabinets stocked with Meccano parts, but of course these are not included in the prices given.

New Meccano Boys, Please Note

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.

Meccano in Other Lands

As our readers will readily believe, the distribution of Meccano amongst boys who reside abroad is fraught with great difficulties just now. Before the war, German and Austrian boys were very fond of Meccano, which they purchased in large quantities through our branch in Berlin. This business is all stopped now, of course, and we have information that the German Government have appropriated all our assets in that country. Our Berlin manager was interned in Ruhleben for 12 months, and was sent home as an invalid last December. That, however, is another and very interesting story, which we hope to tell you in a future issue. In the meantime, all business with enemy countries is at an end.

In France and Italy, in common with all toys, Meccano can only be imported after a special license has been granted. The boys in these and in all the allied countries are playing with Meccano in increasing numbers. The *Meccano Magazine* is published from our branch in Paris, and the letters we receive from boys on the Continent show us that they are second to none in their enthusiasm for Meccano.

Colonial boys are keen Meccano boys, and we export plenty of Meccano to them. They take the greatest interest in our new models, and are becoming formidable competitors in our Prize Contests. We get letters from Canada, Australia, New Zealand, South Africa, where we have Meccano depôts; and in India and all the smaller Colonies Meccano fires the mind and brightens the play hours of thousands of boys.

The Neutral Countries have long succumbed to the fascination of Meccano, and in America, Holland, Norway, Sweden, and Denmark the demand grows greater year by year.

Meccano literature is published in fifteen languages, and there are seven distinct editions of our big Manual of Instructions, for various countries. Wherever there are civilised boys, there you will find Meccano. The little Dutch boy in his wide trousers and funny little wooden shoes is building windmills with Meccano after the pattern of those which make his country so quaint and picturesque; the little Chinese boy in pigtail and gown is fitting together his Meccano parts after the fashion of the wonderful pagodas which abound in his land; the American boy builds model skyscrapers, wonderful creations fitted with elevators to raise the passengers up to the dizzy heights. Boys in every land build models peculiar to their country, and all get their pleasure and fun from it in their own way.

Meccano Sprocket Wheels and Chain

These are new Meccano parts which every boy will find useful. The old way was to use two pulley wheels with a cord. After a little use, the cord stretched a little and commenced to slip, causing the model to stop. By using the sprocket wheels and chain you get a positive drive without fear of slipping and the model runs with the greatest certainty. The cost of the 2 in. sprocket wheels is 6d. each, and the 1 in. wheels 4d. each. Sprocket Chain, 9d. per yard length.



A New Meccano Wheel

These are most useful when constructing Motor Cars, Trucks, Carriages of all kinds. They are 3 in. in diameter, and they greatly improve the appearance and working of the models. Finished in black. Price, 1s. 4d. set of four.



MECCANO



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 interest other Meccano boys can be dealt with here.

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

J. M'Whirter, Glasgow.—We are not downhearted any more, now that you have promised to come and see us. We will see that your visit is made very enjoyable.

Stephen Sunter, Glasgow.—Thanks for sketch, which unfortunately we cannot find room for just at present. It pleases us to know how highly you think of Meccano. Nursery rhymes received.

W. Gernon, Kirkdale.—We are very pleased with your first letter to us. You will notice that we have anticipated your suggestions in the Meccano Manual No. 2, where you will find the curved strips and flat plates.

Leslie Robson, Stockton.—Your poetry which commences "Meccano, the pride of the nation," finishes up rather tamely, after a promising beginning. Try again, Leslie, and take a little more pains with the rhymes and the metre.

Henry L. Barr, Paisley.—Why not start a club yourself instead of waiting for someone else to start one. No doubt lots of Paisley boys would be glad to help you. Thanks for the nursery rhymes.

H. F. Curry, Kirkby Fields.—"Alfred Meccanofingers, who, it will be remembered, bought the only Meccano Motor in Pawilton, has been found in his bed with a Meccano dagger stuck in his shirt, at his home at Flat-bracket Cottage, in Sprocket Wheel Lane. The motor is missing and the police are on the track of several small boys who are suspected." Horrible! Horrible! Why! oh, why have you harrowed our feelings with such dreadful tidings!

Hugh Hembray, Glastonbury.—
Of all the toys I ever loved,
I love Meccano best;
For that, I think, without a doubt,
Is far above the rest.

The rest of your neat poem is not quite so good, but your affection for the hobby is evident, and we shall treasure your letter.

Reginald Palmer, 18, Orchard Street, Ipswich, wishes to know of Meccano boys in Ipswich who will help him to form an Ipswich Meccano Club. Now ye Ipswich boys!

Private W. Elsegood, West End, Cork.—We sympathise with you in your wish to go over to France, but as your health is evidently not too good we are sure you are serving your country just as effectively where you are. Thanks for poetry. Meccano Magazine will be sent to you regularly.

Julius Rosenberg, London.
When I was sick, and lay abed,
I had Meccano beside my bed,
And all the parts beside me lay
To keep me happy all the day.

Well, Julius, that's not a bad little effort for so young a boy. It has the true ring of sincerity, which after all is the supreme test of real poetry.

Leslie Winks, Hoyland.—We have been compelled to hold our big Meccano Prize Competition over this year on account of the shortage of Meccano, and the impossibility of dealing with the enormous number of entries which have to be so carefully dealt with. We shall resume them as soon as possible. Some of your nursery rhymes are quite good.

E. C. Herbert, Aintree.—"After taking a prize in your competition I received congratulations from various parts of the globe, which goes to show with what spirit Meccano boys enter these competitions." Meccano boys are broad-minded boys, and they always play the game.

T. Hyler White, Croydon.—We trust Frank is quite well again now, and that his prize storage cabinet pleased him. You will see that in our Manual No. 2 we have anticipated your suggestion of curved strips.

N. Kingsley Strack, Pymble, N.S.W.—Thanks for your congratulations, and for suggestions for new parts, which will be considered. A number of excellent new parts are announced in the No. 2 Meccano Manual, and others will be added when we are able to manufacture them. It will interest you to know that we are making arrangements to publish a special Meccano Magazine for Australasia.

L. Beckwith, Tottenham.—We are very sorry that you are finding it so difficult to obtain Meccano parts, but we hope this will be remedied before very long. We are glad to have your suggestions for cutter blocks and cutters. Your drawings are quite clear.

Albert E. Rogers.—We wish every success to your Meccano Club, and we hope your Meccano Den will always be crowded with members. We are quite sure that it will help you considerably if you get into correspondence with secretaries of other Meccano Clubs.

Southville Meccano Club.—We shall treasure the photographs you have sent us of the members of your club. As you say, these are *très bon*. The No. 2 Manual was certainly a long time in making its appearance, but you will agree that it was well worth waiting for.

B. Bowles, South Woodford.—Your letter was not "the last straw which broke the mail-bag's back." We read it with pleasure, and hope to hear from you again. We, too, wish the war would "suddenly stop." It's coming to an end though now, and soon we shall all be getting on with the real work of life again.

John S. Cope, Bloxwich.—"I have had this Spanish influenza; it is very nice, I.D.T.!" It's very nice, what, John? We appreciate your wishing to send us raspberries from your garden. The Meccano Magazine will be sent to you regularly.

George Hay, Glasgow.—"I noticed in reading over the Competition results that there are no Scottish winners. Do the Scotch boys not take an interest in the Competition? I would like to appeal to them through the Meccano Magazine to go in next time determined to win the big prizes." Now, you boys from the North, what have you got to say about this?

W. H. E. Jukes, Stourbridge.—Thanks for a suggestion for a Meccano badge. This is neat, and will be considered.

C. Reniere, Haverstock Hill.—No, Charles, the Meccano Magazine is not suffering from nervous breakdown. You see, one of its main articles of diet is paper, and this is even more closely rationed than sugar nowadays.

J. Button, Scottsdale, Tasmania.—We hope you passed the Junior Public Examination and received the promised Meccano Outfit. Forty-seven miles to school every week is a long trip. The inventor of Meccano is on his way back from a trip to Australasia, and he writes to say what a fine reception he had.

W. T. E. Kemm, Wepener, South Africa.—We have read your letter with great interest, and we hope your Meccano Club will be a great success. Let us know of any difficulties you encounter, so that we may help you. We should like to see a photo of your model of Victoria Falls Bridge.

M. A. N. Heathcote, Stevenage.—Thanks for photo of aeroplane, which seems well designed. The best method of driving your electric motor is with an accumulator, which lasts a long time and can easily and cheaply be recharged. We hope you have completely recovered from your accident.

Evelyn Belsey, Putney.—We are glad you like the Meccano Magazine so much. It is hard luck to have to spend a year in bed. Are you better now? Some day when you come to Liverpool you must pay us a visit, and we will show you how our big mail bag is opened and dealt with by the Editor, and how Meccano is made.

Nursery Rhymes

In our last issue we published a new nursery rhyme by a Meccano boy, and we invited our readers to compose and send in others. The response has been very prompt, and for the past few weeks we have been inundated with the efforts of budding Meccano poets. Below we are printing a selection of the rhymes which have been sent in, most of which show originality and humour. In each case the author has heard something to his advantage as promised.

From G. Harold Hill, 82, Mansfield Road, Buxton:—
There was an old woman who lived in a shoe.
She had so many children she didn't know what to do.
Meccano, however, suggested a way
Of keeping them merry and happy all day.

"Sisters and brothers, little maid—
How many may there be?"
"How many? None at all," she said;
"But Meccano's company."

Under the spreading chestnut tree,
The village laddie stands,
And chuckles he, with honest glee,
Meccano in his hands.

From Miss M. M. Hollinshead, 9, Palmerston Gardens, Rathmines, Dublin.

Old King Cole was a merry old soul,
And a merry old soul was he;
He called for his pipe,
And he called for his bowl,
And he called for his Meccano No. 3.

"Where are you going to, my pretty maid?"
"I'm going a-marketing, sir," she said.
"What will you buy there, my pretty maid?"
"Meccano Outfits, sir," she said.
"And what do you want them for, my pretty maid?"
"For a wee boy to play with, sir," she said.
"And what is your fortune, my pretty maid?"
"Meccano's my fortune, sir," she said.
"Then I shall marry you, my pretty maid!"
"Mr. Hornby's before you, sir," she said.

From Fred Cotton, 299, Station Road, Bamber Bridge.

Ride a cockhorse to Banbury Cross,
To see a fine lady get on a white horse,
With rings on her fingers and bells on her toes,
She talks of Meccano wherever she goes.

From E. Taylor, Hazelbrow.

Mary, Mary, quite contrary,
How does your Meccano grow
With puffer trains,
And lovely cranes,
And tanks to fight the foe.

From David C. Ramsden, 257, Hyde Park Road, Headingley.

Little Miss Muffett,
Sat on a tuffett,
And with Meccano she started to play.
This did so enthrall her,
The spider failed to appeal her,
And turned disgusted away.

Nuts and Bolts.

There has been a great scarcity of nuts and bolts for a long time, but now peace has been declared we have been able to turn more machines on to them, and we can fill all orders without delay. We are, as rapidly as possible, turning all our machines over to Meccano work, and soon we hope to have plentiful supplies of all outfits and parts. You can order at once through your regular dealer. Let us know if you have any difficulty.

No. Prices of Meccano

No. 0	Outfit with full instructions for building	5/6
1	do. do.	9/-
2	do. do.	16/6
3	do. do.	25/-
4	do. do.	42/-
5	do. do.	57/6
6	do. do.	145/-

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

Accessory Outfits

No. 0a	converting a No. 0 into a No. 1	4/-
1a	do. do. 1 do. 2	9/-
2a	do. do. 2 do. 3	9/6
3a	do. do. 3 do. 4	18/-
4a	do. do. 4 do. 5	14/-
5a	do. do. 5 do. 6	50/-

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.

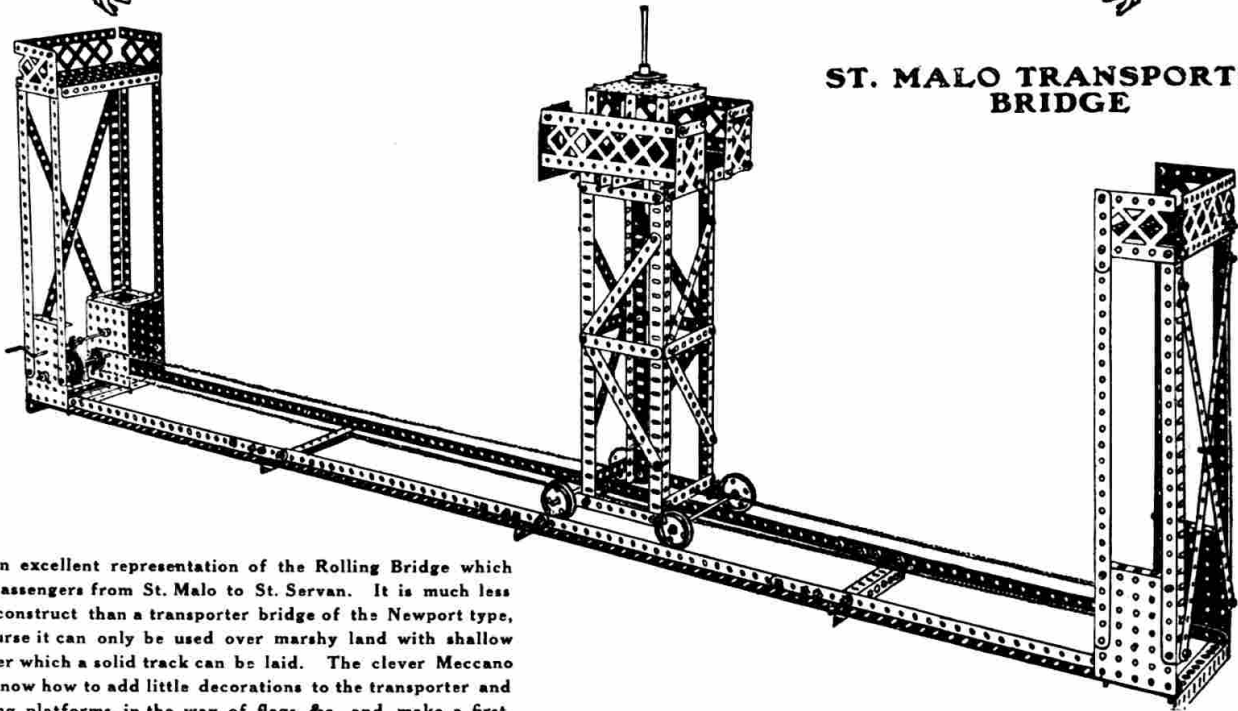
PUBLISHED BY MECCANO LTD.,

BINNS ROAD, LIVERPOOL.

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

MECCANO MAGAZINE

TO HELP MECCANO BOYS TO HAVE MORE FUN THAN OTHER BOYS



ST. MALO TRANSPORTER
BRIDGE

This is an excellent representation of the Rolling Bridge which conveys passengers from St. Malo to St. Servan. It is much less costly to construct than a transporter bridge of the Newport type, but of course it can only be used over marshy land with shallow water, over which a solid track can be laid. The clever Meccano boy will know how to add little decorations to the transporter and the landing platforms, in the way of flags, &c., and make a first-class toy of this fine model.

EDITORIAL.

Full Steam Ahead.

Since the Armistice our factory has been working night and day on Meccano, and many thousands of new and old Meccano boys have been made happy by being able to obtain their outfits. It has been a hard struggle to meet the remarkable demands which you boys have made on us, but by the time this number of the *M. M.* reaches you, our output will be so big that there need be no further waiting for any of you. Full steam ahead is our motto from now on.

The New £200 Prize Contest.

We are starting our Grand Meccano contest again, and you will find full particulars on the next page. Every Meccano boy should enter; there are hundreds of fine prizes, and any boy with a good idea for a new model should have no difficulty in gaining one of them. We want this to be the biggest and most successful contest we have ever run.

Meccano Clubs.

Judging from the enormous number of entries in our Essay Competition on

"How I would run a Meccano Club," the interest in this movement is very great indeed. Meccano boys evidently feel that they are members of a great world-wide Brotherhood, and that some movement should be started to gather all their ideas and work together for the increased happiness and welfare of all clean-minded and intelligent boys in this country. We shall have more to say on this matter in our next issue.

New Meccano Parts and Clockwork Motors.

We are working hard to get the new Meccano parts ready, and we shall be able to let you have these very soon now. The necessary tools take a long time to make, as they have to be made with very great accuracy; but we shall soon be able to let you have all you need. We have also resumed work on the No. 1 Meccano Clockwork Motor, and before the winter months come on we shall be turning them out in good quantities.

Meccano Essay Competition

"How I would Run a Meccano Club."

The response to this competition has been overwhelming and we have been unable to make the awards in time for this issue of the *Meccano Magazine*. All the entries are being very carefully considered, and in our next issue we shall publish a summary of the opinions of our readers as to how a Meccano Club should be formed. In the meantime any boy who has special views which he would like to submit to us should write without delay, as we are anxious that the Meccano Club idea should be a huge success.

We have received a great deal of correspondence from secretaries of Meccano Clubs in various towns, and we are greatly impressed with the enthusiasm with which many of these are run. We would single out for special mention Mr. Stuart H. Wilson, president of the Holy Trinity Meccano Club, with head-quarters at 29, Thornhill Road, Barnsbury, London, who runs his Club in a most successful manner, and who writes us excellent letters when reporting progress, which we should very much like to publish. We shall certainly tell you more of his doings in future numbers.

The Meccano Club in Glasgow, whose president is Mr. A. W. A. Dick-Cleland, has its own private Club Magazine, with a number of very capable contributors. We have also pleasure in commending the Methodist Magazine edited by Alfred Rolfe, an enthusiastic Meccano boy run for the benefit of Meccano boys.

The Editor

MECCANO MAGAZINE

TO HELP MECCANO BOYS TO HAVE MORE FUN THAN OTHER BOYS



CLUB NIGHT. THE HAPPIEST NIGHT IN THE WEEK.

EDITORIAL.

Meccano Guild.

I hope that all you boys will carefully read our announcement of the founding of the Meccano Guild on the next page. This is a wonderful movement for boys, and each one of my readers must do his share towards making it a success.

Meccano Club Members.

The lot of a member of a Meccano club is destined to be a very happy one in future. He will have plenty of interesting work to do; he will be in close contact with a host of fine friends, and he will have plenty of chances of gaining distinction.

Individual Membership of the Guild.

If you are not a member of a Meccano club you may still join the Guild as an individual member; wear the Guild badge; live up to its principles; count on the friendship of all other Meccano boys, and share all the privileges of membership. There will be opportunities in the future for individual members to distinguish themselves and share in the awards and benefits of the Guild.

New Meccano Parts.

Let me specially call your attention to the new Meccano parts illustrated in the accompanying sheet. The design of each one has been carefully studied, and you will find that they will extend the scope of your Meccano outfit very considerably. Additional new parts are in preparation, and will be announced very shortly.

No Shortage of Meccano.

There is no shortage of any Meccano part or outfit now, and you should be able to get anything you require through your dealer without difficulty. You will find very great improvements in most of the parts.

The M.M. oftener in future.

Although there is still a great shortage of paper, I have every confidence that we shall

be able to issue the Meccano Magazine oftener in the future. The next number will be specially interesting, as it will record the progress of the Meccano Guild movement, the success of which I feel is already assured. There will also be other new and interesting features.

The Editor

The Life Story of Meccano

BY FRANK HORNBY.

(Continued.)

I now began to pay considerable attention to foreign markets, where Meccano was already meeting with an excellent reception. Agents were appointed in New York, and frequently during the year we sent over heavy shipments. Up to this point our continental business was worked through an agent in Rotterdam, but as he could not cover the whole of the ground we formed separate Meccano Companies in France and Germany. We sent our own trained men over to Paris and Berlin as managers, with the consequence that our continental trade began to increase very rapidly. American, French, and German boys followed the lead of the British boy and accepted Meccano as their winter indoor hobby. I used to pay visits to each of these countries once or twice in the year, and it was interesting to me to watch the English history of Meccano repeat itself in new countries, only, of course, as my goods were much now better finished and the system more highly developed, the progress was much more rapid. This increased foreign business complicated our work enormously of course. We had to print literature, manuals, showcards, and labels in several new languages, and we had to get language experts and men accus-

tomed to export business around us to help. Even at that time we could truthfully say that there was not a civilised country in the whole wide world where Meccano had not penetrated and established itself. Boys wrote to me in all languages, from every quarter of the globe, praising Meccano, complimenting us on our models, suggesting new ones; all showing a desire to get into closer and more intimate touch with us. The boys in Australia and New Zealand were particularly keen on Meccano, and I have to thank them for much encouragement and many suggestions in those early days.

Gradually the whole of our new premises got filled up with new machines, and still the demand grew bigger and bigger. I began to see that moving from one set of premises to another was a waste of both time and money, and more serious still, a hindrance to the progress of Meccano Limited. I gave long and serious thought to the matter, and finally I decided that the only satisfactory way to meet the rapidly growing needs of my business was to buy a plot of land and erect my own building. This was a very serious step, but I had become so confident of the future of Meccano that I had no hesitation in taking it. Before very long I found that I could buy a very fine piece of land within easy reach of the city of Liverpool, handy for the docks and the principal railway stations, and large enough in my opinion to provide for many years' expansion at the same rate which I had already experienced. I purchased the land and the erection of an up-to-date factory was commenced without delay. I am sure you can imagine the satisfaction which this new move gave to me. I watched the building grow to completion with great pride, and it was a happy day for me when I saw two new and powerful engines installed and working all my old and many new machines, turning out Meccano parts under the brightest and healthiest conditions for all my workpeople.

(To be continued.)

MECCANO INVENTORS' COMPETITION

1919—20.

ONE of the most excellent features of Meccano is the constant freshness and variety imparted to the hobby by the introduction of new engineering elements, and this is a line of progress which we shall always develop strongly. We have recently added a number of new parts to the system, and each one of them adds to the pleasure and interest of Meccano model building, and to the beauty and efficiency of the models themselves. Every Meccano boy should add them to his outfit because they will give him a lot of help. We are preparing a new Manual of Instructions containing models which will illustrate the usefulness of these new parts, but before this is issued we wish to encourage Meccano boys to think things out for themselves, and we are therefore offering valuable prizes for suggestions for the improvement of the models in the Meccano Manuals of Instructions, by the use of any of the following new parts.

No. 109. Face Plate.	No. 62a. Threaded Crank.	No. 52a. Flat Plates $5\frac{1}{2} \times 3\frac{1}{2}$ in.
„ 110. Rack Strip.	„ 108. Architrave.	„ 53a. „ „ $4\frac{1}{2} \times 2\frac{1}{2}$ „
„ 63a. Octagonal Coupling	„ 20a. Pulley Wheel, 2in.	„ 70. „ „ $5\frac{1}{2} \times 2\frac{1}{2}$ „
„ 63b. Strip Coupling.	„ 19b. Pulley Wheel, 3in.	„ 72. „ „ $2\frac{1}{2} \times 2\frac{1}{2}$ „
„ 64. Threaded Boss.	„ 80 & 81. Screwed Rod.	„ 7. Angle Girders, $24\frac{1}{2}$ in. long
	„ 90. Curved Strip.	„ 7a. „ „ $18\frac{1}{2}$ in. „

HOW TO COMPETE. Look carefully over the models in the No. 1 and No. 2 Manuals of Instructions, and decide how any of these could be improved by the use of any of the above new parts, then send to us a sketch or photograph of the alterations which you suggest, together with a short description.

First Prize—a No. 6 Meccano Outfit	...	value £9 0 0
Second „ „ 5 „ „	„ £5 0 0
Third „ „ 5 „ „ (carton)		„ £3 10 0

Additional Prizes will be awarded to competitors whose entries shew special merit.

All entries for this competition should be addressed—

INVENTORS' COMPETITION,
MECCANO LIMITED,
BINNS ROAD,
LIVERPOOL.

Closing date, March 1st, 1920.

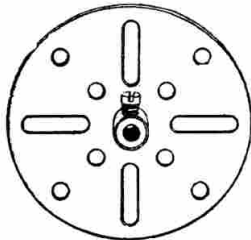
The judges will be Meccano Ltd., and the sole copyright of the photos, sketches or models which win prizes will be vested in the Company. Photographs or sketches will not be returned.

No special Form of Entry is required in this competition.

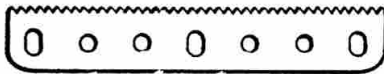
MECCANO LIMITED.

LIVERPOOL.

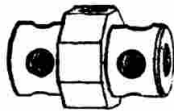
NEW MECCANO ACCESSORY PARTS



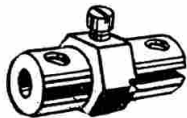
109. Face Plate, $2\frac{1}{2}$ in. diameter, used as a chuck for a lathe, centre boss for big wheel, etc. ... 6d. each.



110. Rack Strip, $3\frac{1}{2}$ in. Cut to the pitch of Meccano gear wheels. Can be built up to any length ... 3d each



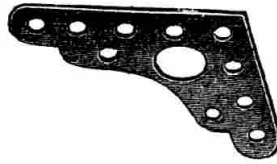
63a. Octagonal Coupling. Drilled and tapped in the same way as the regular Meccano coupling, with an extra tapped hole. Can be attached to Meccano strips on its flat faces, or may be used as the hub of a wheel. 9d. each.



63b. Strip Coupling. Drilled, tapped and slotted. Forms a suitable connection between strips and rods. 9d. each.



64. Threaded Boss. To be used as a fixed nut for attaching to any Meccano part which requires to be engaged by a screwed rod ... 3d. each.



108. Architrave. May be used as a bracket for strengthening many of the models, also as a decorative piece for finishing off columns, towers, &c. ... 3d. each.



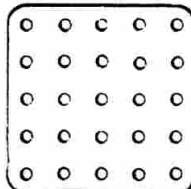
20a. Pulley Wheels, 2" diameter, with centre boss and set screw ... 9d. each.
19b. Do. 3" diam., 1/- each.



111. Bolt, $\frac{3}{8}$ " ... 1d. each.



80. Screwed Rods, 5" 6d. each.
81. Do. 2" 3d. ..



52a. Flat Plates, $5\frac{1}{2}$ " \times $3\frac{1}{2}$ " 5d. each.
72. Do. $2\frac{1}{2}$ " \times $2\frac{1}{2}$ " 3d. each.
70. Do. $5\frac{1}{2}$ " \times $2\frac{1}{2}$ " 5d. each.
53a. Do. $4\frac{1}{2}$ " \times $2\frac{1}{2}$ " 4d. each.



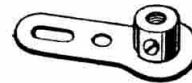
90. Curved Strips, $2\frac{1}{2}$ " 1d. each.



12a. Angle Brackets, 1" 2d. each.



7. Angle Girders, $24\frac{1}{2}$ " long 9d. each.
7a. Do. $18\frac{1}{2}$ " long 7d. each.



62a. Threaded Crank. Similar to the ordinary crank with the exception that the centre of the boss is threaded and there is also a threaded hole at right angles 6d. each.



60a. Double Angle Strip, $1\frac{1}{2}$ " \times $\frac{1}{2}$ " 1d. each.
60. Do. $2\frac{1}{2}$ " \times $\frac{1}{2}$ " $1\frac{1}{2}$ d. each.
60b. Do. $3\frac{1}{2}$ " \times $\frac{1}{2}$ " 2d. each.
60c. Do. $5\frac{1}{2}$ " \times $\frac{1}{2}$ " 3d. each.



46. Double Angle Strip, $2\frac{1}{2}$ " \times 1" 3d. each.



112. Double Angle Strip, $2\frac{1}{2}$ " \times $1\frac{1}{2}$ " 3d. each.

THE BLOCK ACCUMULATOR.

4 volts ... 6 ampere hours.

This is a new and excellent type of accumulator. We have subjected it to most severe tests, and we believe it to be most suitable for use with any type of toy electric motor. It is non-spillable, cannot be spoiled through not circuiting, and it will retain its charge for many months. Sulphating to any serious extent cannot occur, and if neglected or left in inexperienced hands, no serious harm can be done. Has remarkable recuperative powers, and will keep on working when nominally exhausted. A boon to any Meccano user who possesses a Meccano Electric Motor. Full instructions.

Price, 21/-



MECCANO MAGAZINE

TO HELP MECCANO BOYS TO HAVE MORE FUN THAN OTHER BOYS

EDITORIAL.

The Meccano Guild.

The announcement of this important boys' movement has met with all the success which I hoped for it, and I trust that all my readers will carefully study the Secretary's report on its progress. I want you all to share in the benefits and enjoyment which the Guild will give you. Every new recruit strengthens the movement, and hastens the day when the Meccano Guild will be one of the greatest powers for good in the land.

Meccano a National Hobby.

With rare exceptions all the boys in Great Britain now use Meccano, and look upon it as their greatest and best indoor recreation. It is firmly established as a national boys' hobby, and its strength grows from day to day. We have not yet reached the limit of progress, and there are rare times to come for all Meccano boys.

Meccanoland.

I do not want any of you boys to miss reading this fascinating book. It tells of the land "where dwell the happy boys," and it also contains an interview which one of these boys had with Mr. Frank Hornby, the Inventor of Meccano. If you have not had your copy send for it at once.

New Parts.

The new Meccano parts which have recently been introduced have broadened out the system enormously, and I strongly advise you to study them seriously. They mean new models, better models, new and delightful mechanical movements, and more fun. The Inventors' competition, particulars of which were sent with the last *Meccano Magazine*, offers a series of fine prizes for the use of these new parts, and I want to see as many entries as possible.

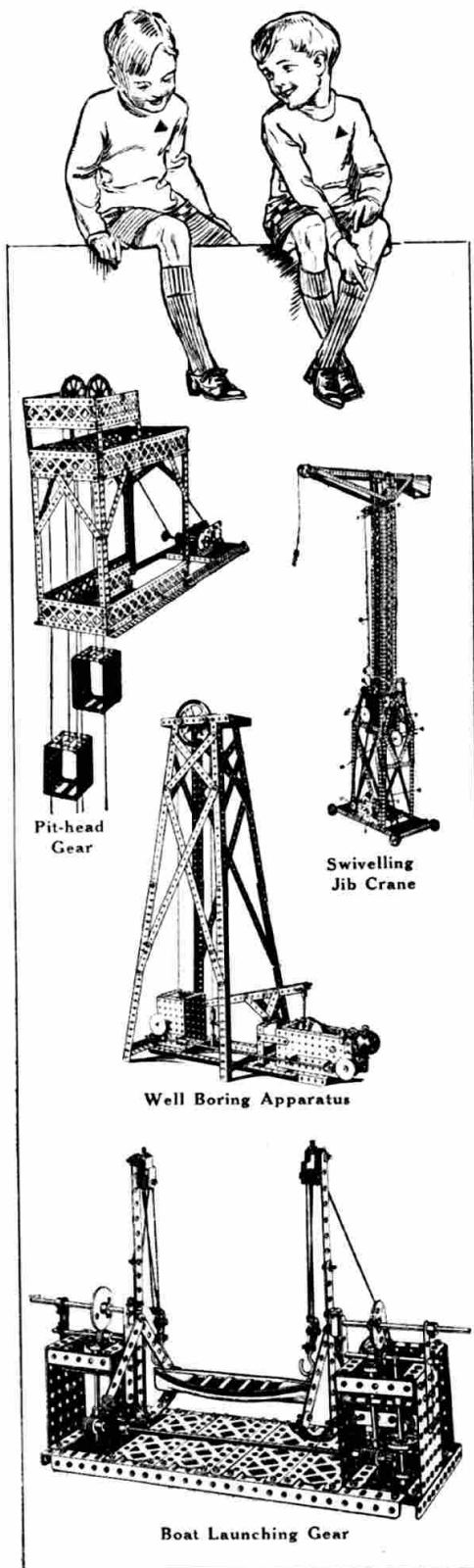
Our Grand £200 Competition.

Entries for our big Competition are coming in freely, and the demand for entry forms is much greater than we have ever experienced before. There are hundreds of prizes, and every ingenious Meccano boy should make a big effort to secure one.

Subscriptions for the Meccano Magazine.

The *Meccano Magazine* is only posted to subscribers, and each issue runs into scores of thousands. I notify each reader when his subscription has run out, and he should at once send in a renewal subscription in order to ensure receiving further numbers. A number of my readers have notified me of a change in their address without giving me the old address, and this often entails a long search through our records. Both the old and the new addresses should be given when any alteration is notified.

The Editor



The Life Story of Meccano

By FRANK HORNBY.

(Continued.)

As a rule, the transference of machines and plant from one factory to another is attended by almost complete cessation of work for a period and great dislocation of business, but in my case we were able to transfer from my old factory to the new one without stopping for a day. Two large new gas engines were first installed and completely new shafting and belting were set up right through the works. Then each lathe, press and other machine was carried over separately, fixed in its new position and started to work immediately. A great deal of hard work and careful organisation were necessary of course, but the whole removal was conducted without a hitch.

In my old building most of the big presses were set up on boarded floors underneath which were large cellars, and I assure you that when they were all at work the noise was terrific. In my new factory all the floors had been specially prepared with concrete beds to receive presses and other machines of a very heavy type, with the result that there was no vibration and very little noise when the workshops were in full swing.

Our offices and clerical staff were still in West Derby Road, but plans had been completed for a new building to be erected alongside the factory in Binns Road, which should include office accommodation, a fine model room, and a very large room with 25,000 sq. ft. of floor space, to be used for assembling and packing the completed Meccano outfits. The work was begun and pushed forward rapidly, but just before completion the great war broke out and naturally held us back to some extent. Most of you will remember the excitement of this period, and I always look back on that time with feelings of gratitude for the narrow escape which I had from an unpleasant experience. At the end of July I was in Berlin on a visit to the head office of the German Meccano Company, and I anticipated making rather a lengthy stay there. When the trouble broke out and things became so unsettled, I thought it best to get back to England, although I had no notion whatever that my own country could possibly be concerned in the trouble. When I reached home I found that war between this country and Germany had already been declared, and that by a great piece of good fortune I had travelled on the last train which left Berlin for Holland bearing English passengers. If I had delayed another few hours I should certainly have shared the fate of the thousands of unfortunate Englishmen who were afterwards interned in Germany under such trying conditions.

Shortly after my arrival home we were able to transfer over to our new premises, and we very quickly made ourselves at home. Our new great assembling rooms were soon going in full swing, and right throughout the works we settled down to produce Meccano under the happiest and best conditions.

(To be continued.)

A New Grand Meccano Prize Competition

£200 in Prizes. 1st Prize, £50 in cash

Now that conditions are getting a little nearer normal we are able to resume our big Contests, and we are again offering prizes to the value of £200 for the best Meccano models. The conditions will be the same as usual, and every boy who has a Meccano outfit has an equal chance of carrying away one of the big prizes.

Don't forget that more prizes are awarded to simple models than to complicated ones. Get your entry form without delay from your regular dealer, or from us if you have any trouble.

There are no entrance fees or restrictions of any kind. The entry form tells you just what to do. The competition closes on March 31st, 1920. The closing date for the Colonies will be extended to May 31st, 1920

ANY BOY CAN ENTER.

MORE THAN 200 PRIZES

MECCANO



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 interest other Meccano boys can be dealt with here.

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

D. L. Webster, Well Hall.—Glad to have your interesting and novel letter. Your Meccano Stall was a good idea, well carried out. We wish we were nearer to you so that we might come to your Concert Party.

T. R. Lawrence, Narberth.—"Since I have had Meccano I have been a happier and brighter boy." From your letter we should say you were a very happy boy indeed. We will try to publish the *Meccano Magazine* oftener.

Winston Thomas, Burnham.—You appear to belong to a thorough going Meccano family and we are pleased to hear that you all get so much fun from the hobby. We hope to hear soon that Ernest has got his outfit.

Edwin Clarke, Pinhoe.—We are interested in hearing that you are now going to take up engineering as a profession, fortified by the knowledge you have gained from Meccano. Every Meccano boy will join us in wishing you all success. Thanks for suggested new parts, which will be carefully considered. You may send in as many models as you like for the Competition.

E. D. Gill, Kingston.—Thanks for cutting from "Daily Mail" mentioning Meccano as a preventative of nerve shock. Competition entry forms have been posted to you.

R. W. S. Parriss, Trowbridge.—"I made a model steam tractor the other day and a lady came in and remarked what a lovely aeroplane I had made. I am disgusted." A most disconcerting experience for you, R. W. S., but then there are some persons who wouldn't know a cabbage from a rose unless it had a label.

Leonard Wright, South Shields.—It would be a very long journey to bring your black kitten all the way to Liverpool, and much as we should like to see it performing its tricks, we think it will be safer at home.

Harold Mason :—

"This toy each boy does love most dear,
And always longs to have it near,
It's always charming as we say
And lo! a new one every day.
I speak of it as 'It.'
For every boy should know
That when we speak of 'It' in toys,
We mean our Meccano."

Your other verses are just as good and truthful, Harold, and we are sorry we have no room to print them.

S. R. Wilson, Goole.—We are sure it will give yourself and your friends pleasure to see your models exhibited in Mr. Thompson's windows, and we hope the Competition will be very successful. Thanks for suggestion and good wishes.

E. Hardy, Osgodby.—"You seem to make Meccano more interesting every time you send a magazine." We certainly try to, and there are many good things still to come. Sorry we cannot help you to secure back numbers of the *Meccano Magazine*.

T. A. Richardson, Oldham.—"Meccano gets better every day. The new parts are absolutely top hole." Meccano boys are making splendid use of the new parts, and the Inventors' Competition is already bringing in some fine suggestions.

Meccano Guild Members' Column

C. Jones, Farnborough.—"I have no chance of joining a Meccano Club as I live in a very lonely part; even the school I attend is five miles away." The Guild extends a warm welcome to lonely boys and will do all in its power to brighten their lives.

H. Alcock, Openshaw.—You should certainly wear your badge whether you are able to form a club or not. I wish you every success in your endeavours.

C. H. McKnight, Cardiff.—The Cathays Meccano Club is a very promising organisation which has my sincere good wishes. You did your friend a great kindness in inducing him to give up his faulty engineering system and take up Meccano. He evidently appreciates this.

C. B. Wood, Leeds.—Neither your age nor lack of time should prevent you from being a member of the Meccano Guild. You approve of its objects, and that is the main thing, and I look to older Meccano boys to set their younger brothers an example.

Roland H. Ward, Barnetby.—Very glad to hear that your club is starting on its career of usefulness and hope your exhibition in aid of your chapel will be successful. Let me know.

Rev. A. B. Grosvenor, Brightlingsea.—I am glad to have your tribute to Meccano, and I welcome you as a member of the Guild. If I can help you in your work amongst boys I hope you will write to me.

W. E. Gillespie.—You have my best wishes in forming your club. The main thing, of course, is to secure an adult club leader to help you.

Norman Boocock, Halifax.—I am quite sure that your Scoutmaster would make an excellent Club Leader, and I hope you will be successful in securing his help. I have written a special letter to him.

Frank Berry, Hull.—"The more you see and play with Meccano the better you like it. By jove, doesn't it improve, first one thing and then another, but the latest, 'The Meccano Guild,' will hit it right on the head this time. It's really fine." I have received letters without number in the same strain, but none more enthusiastic than yours, Frank. I am happy to welcome you as a member of the Guild.

L. Taylor, Manchester.—I was glad to hear from you again, and to know that your Meccano knowledge had proved so helpful to you during your connection with the R.A.F. You are just the kind of boy I want to see taking an active part in a Meccano Club. Let me know if I can help you.

L. T. Greensmith, Hull.—There is a very large number of Meccano boys in Hull, and you should have no difficulty in forming a successful club. F. W. Doughty, of 47, Saville Street, is taking a keen interest in the movement and would no doubt be able to help you.

H. Claxton, Hull.—See my reply to L. T. Greensmith. You have my best wishes.

A. Whitwam, Manchester.—Fourteen members is quite sufficient to commence with and you should be able to form a splendid club. The first essentials are an active Secretary and an adult Club Leader.

The Secretary:

Inventor's Competition

We offer valuable prizes for suggestions for the improvement of any Meccano model by the application of the new Meccano Accessory parts recently introduced.

1st Prize—A No. 6 Meccano Outfit, value £9. 0s. 0d.

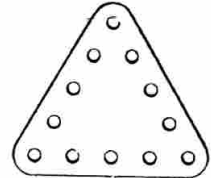
2nd Prize—A No. 5 Meccano Outfit, value £5. 0s. 0d.

3rd Prize—A No. 5 Meccano Outfit (Carton), value £3. 10s. 0d. Send for descriptive leaflet.

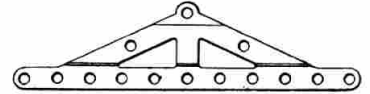
New Meccano Parts



31. Gear Wheel, 1", 40 teeth, Price 1/9 each



76. Triangle, 2½" Price 2d. each



113. Girder Frame. Price 4d. each

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. A double subscription of 4d. will, of course, ensure the next eight numbers being sent to you.

Prices of Meccano

No.	Description	Price
0	Outfit with full instructions for building	6/-
1	do. do.	10/-
2	do. do.	20/-
3	do. do.	30/-
4	do. do.	50/-
5	do. do. (Carton)	70/-
5	do. do. (Wood)	100/-
6	do. do.	180

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

Accessory Outfits

No.	Description	Price
0a	converting a No. 0 into a No. 1	5/-
1a	do. do. 1 do. 2	11/-
2a	do. do. 2 do. 3	12/-
3a	do. do. 3 do. 4	22/-
4a	do. do. 4 do. 5	17.6
5a	do. do. 5 do. 6 (Carton)	56/-
5a	do. do. 5 do. 6 (Wood)	95/-
	Inventor's Outfit	10/-
	Meccano Clockwork Motor	12.6

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.

PUBLISHED BY MECCANO LTD.,

BINNS ROAD, LIVERPOOL.

Printed by Taylor, Garnett, Evans, & Co. Liverpool, Manchester, and London.

On Guilds.

Many of our readers have written to ask us why we have called the "Fellowship of Meccano Boys" a Guild. This is a very natural query, and we think we cannot do better than explain to our readers the full significance of the word "Guild" and the history of its origin.

From the very earliest times man has proved himself to be a sociable being. In the distant ages men formed themselves into tribes, in order to ensure protection against other tribes and their natural enemies, wild animals. As civilisation advanced, common interest and the social instinct drew the tribes together into nations, but in these again smaller bodies sprang up, drawn together by social, domestic, and commercial ties.

The origin of the Guilds is lost in antiquity, and although it cannot be claimed that they were originated in England, they were developed further in this country, perhaps, than in any other.

A Guild may be briefly described as a union of men formed for mutual benefit, responsibility, and protection.

A number of skilled artisans and traders left Flanders and Northern France in the wake of William I.'s army, to settle in the then newly-conquered England. They became very prosperous through hard work and successful trading, and as neither life nor property was safe in those lawless times, they joined together in the various towns and villages to resist the armed robber bands that infested the country. The more prosperous merchants and traders were the first to band themselves together, and in the twelfth century Royal authorisation was given to the founding of Merchant Guilds. As many of the members were wealthy men, they built their own halls in which to hold meetings and discuss their problems privately.

The Merchant Guilds were formed primarily for trading purposes, and they passed many stringent rules regulating the trade in various towns and villages. For instance, only members of the Guild were allowed to sell goods to the inhabitants of a town. A stranger might bring in goods, but he could only sell them to members of the Guild, and anyone found breaking this rule was very severely punished. It might be thought that the merchants, protected by Royal authority, and strongly organised in this way, would make exorbitant charges as there was no competition and no restraint, but wise rules were drawn up by all the merchants assembled together, and any member disregarding these for his own profit had his privilege of membership taken away, and he was thus deprived of the means of livelihood.

Gradually the scope of the Merchant Guilds widened, and when the liberties of the townsmen were threatened, there were large assemblages at the Guildhall to consider ways and means of defending their rights. Thus the Guild's affairs became more and more the town's affairs, and later on we find the Guild-halls became Town Halls and the Merchant Guilds became Town Councils.

As the Merchant Guilds gradually changed in character the Craft Guilds sprang up and replaced them as far as trading interests were concerned. The Craft Guilds, as was the case with the Merchant Guilds, were governed by very strict rules.

(To be continued.)

New Essay Competitions

Each Essay Competition which we have run in the past has brought crowds of entries, and our readers evidently like this form of competition. We should have run more of them but they have been crowded out by other good things. However, here are three new ones which we think will be popular. The first two are for members of the Meccano Guild only, and we hope that every member will show his interest and enthusiasm for the movement by entering.

Essay Competition No. 1.—How each member can best help the movement and further its objects.

Essay Competition No. 2.—The best syllabus for the meetings of a Meccano Club during the summer months.

A first prize of a "B" Inventor's Outfit will be awarded in both the above competitions, and there will be additional prizes to members sending in essays which display special merit.

The third Essay Competition is open to all Meccano users and the subject is, "Which is the more enjoyable, building a Meccano model or playing with it, and why?" The first prize is a No. 2 Meccano outfit, with other prizes for essays of special merit.

The closing date for all three competitions is August 31st, 1920. Write on one side of the paper only, about 500 words. Give your name, address and age on the back of each sheet. Address the envelope "Meccano Limited, Essay Competition, Binns Road, Liverpool."

Meccano Inventor's Accessory Outfits.

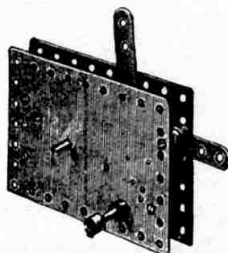


Every Meccano boy should know what hours of fun and pleasure are stored up in these splendid outfits. They increase the scope of Meccano enormously. They contain all the new Meccano parts which have been invented during recent years, none of which are in the regular Meccano Outfits. Every model in the Meccano manuals can be greatly improved by their use, and they are an absolute necessity in building and inventing new models.

"A" INVENTOR'S OUTFIT. Contains a set of big 3in. wheels, 2in. pulley wheels, the new and decorative braced girder, sprocket wheels and chain, for giving a positive non-slip drive, new gear and pinion wheels, rods and washers. Price, 10s.

"B" INVENTOR'S OUTFIT. Contains a splendid assortment of the latest Meccano accessory parts. Bevel gears, 1in. gear wheels, flat plates (four sizes), double angle strips (four sizes), octagonal and strip couplings, threaded cranks, triangular plates, screwed rods, curved strips, architraves, face plates, rack strips, girder frames, hinges, buffers, and train couplings. Price, 25s.


The Meccano Clockwork Motor.

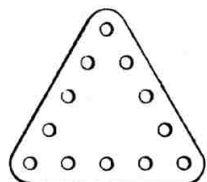


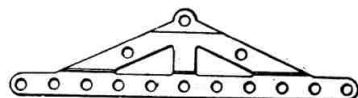
The demand for this fine motor has been phenomenal, and although we have been manufacturing heavily for some time we have not yet quite caught up with the orders. By the time this issue is in your hands, however, we expect to be able to take care of all orders immediately. The Meccano clockwork motor gives life to Meccano models. It operates cranes, elevators, trucks, motor-cars, &c., and it may be geared to any speed by the youngest boy. Simple, strong, and reliable. Price, 12s. 6d.

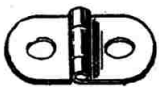
New Meccano Parts


 s. d.
No. 30. Bevel Gears each 1 6



No. 31. Gear Wheels, 1", 40 teeth ... each 1 9



No. 76. Triangular Plates, 2½" ... each 0 2
No. 77. " " 1" " 0 1½


No. 113. Girder Frames each 0 4


No. 114. Hinges per pair 0 7


No. 115. Threaded Pins each 0 2


No. 120. Buffers each 0 2


No. 121. Train Couplings each 0 6

The Block Accumulator.



This is a new and excellent type of accumulator. We have subjected it to most severe tests, and we believe it to be most suitable for use with any type of toy electric motor. It is non-spillable, cannot be spoiled through short circuiting, and it will retain its charge for many months. Sulphating to any serious extent cannot occur, and if neglected or left in inexperienced hands, no serious harm can be done.

Has remarkable recuperative powers, and will keep on working when nominally exhausted. A boon to any Meccano user who possesses a Meccano Electric Motor. Full instructions.

Price, 21s.

Horaby Clockwork Trains.

I am sorry that so many of my readers have had to be kept waiting for these trains. We knew the demand would be very large, but we did not anticipate that it would be quite so big as has proved to be the case. Both dealers and boys are charmed with these trains and those boys who have been lucky enough to obtain them so far are having good times at home. More machines and more workpeople are being added to the Company's Train Department, and very soon I hope all demands will be filled.

The M.M. on Sale at your Dealers.

Do not forget that the *Meccano Magazine* can now be obtained through your regular dealer. To prevent disappointment, however, you should place an order with him to have a copy saved for you regularly. If you prefer to have it direct from us it will be necessary for you to send 6d. in stamps for the next six issues.

The Editor

New Essay Competition.

We have noted with pleasure the great interest taken in the recent Essay Competitions, and the unfailing popularity of this form of competition among Meccano boys. We are, therefore, announcing a new one, and we look forward to receiving a record number of entries.

The subject of the Competition is "How I would run the *Meccano Magazine* if I were Editor."

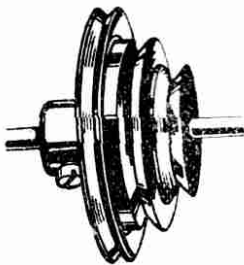
The Competition is open to all readers of the *Meccano Magazine*.

An Inventor's Outfit "B" will be awarded for the best Essay, with other awards for Essays showing special merit.

The closing date is February 19th, and the result will be announced in the March-April issue of the Magazine.

Write on one side of the paper only, about 500 words. Give your name and address and age on the back of each sheet, and address the envelope "Meccano Ltd., Essay Competition, Binns Road, Liverpool."

Meccano Cone Pulley.



A useful new Meccano accessory part which enables the user to drive a lathe or other machine at three different speeds. Our illustration shows the actual size of the pulley.

Meccano Cone Pulley .. 1s. 6d. each.

Life Story of Meccano

By FRANK HORNBY.

(Continued.)

As I have already said, our bolts are made from steel, and if they were sent out to you in the condition they come from the machines they would very quickly rust. To prevent this they are very carefully and thoroughly cleaned with chemicals, after which they are poured into an electrically operated plating vat which coats them with brass. During the whole of the brassing process they are turned over and over thousands of times, and by this means not only plated, but thoroughly polished.

After this they are sent to an Inspection Department where each bolt is inspected before it is assembled to a nut. We do this to fully ensure that faulty bolts will be rejected and not allowed to be placed into outfits. We have scores of girls whose sole work it is to assemble our nuts and bolts together, and although the cost of this is naturally very large, we feel that the results secured and the satisfaction given to all who build Meccano models amply repays us.

In this issue of the *Meccano Magazine* you will notice that we have included a photograph of a section of one of our departments. This is what we call our tool room, and the men employed in it are experienced, highly skilled and highly paid. It is in this room that the whole of the tools for making Meccano parts are made. Our tools are made from what is called high-speed steel, which contains a large percentage of carbon. It comes to us in bars about 12ft. long and when new tools of any kind are required pieces are first cut off from this bar of suitable length by a power operated machine called a saw.

The pieces then go to one of the shaping machines to have all their sides machined flat and true. Some of the shaping machines work horizontally, and these are used mostly for outside flat surfaces; others work ver-

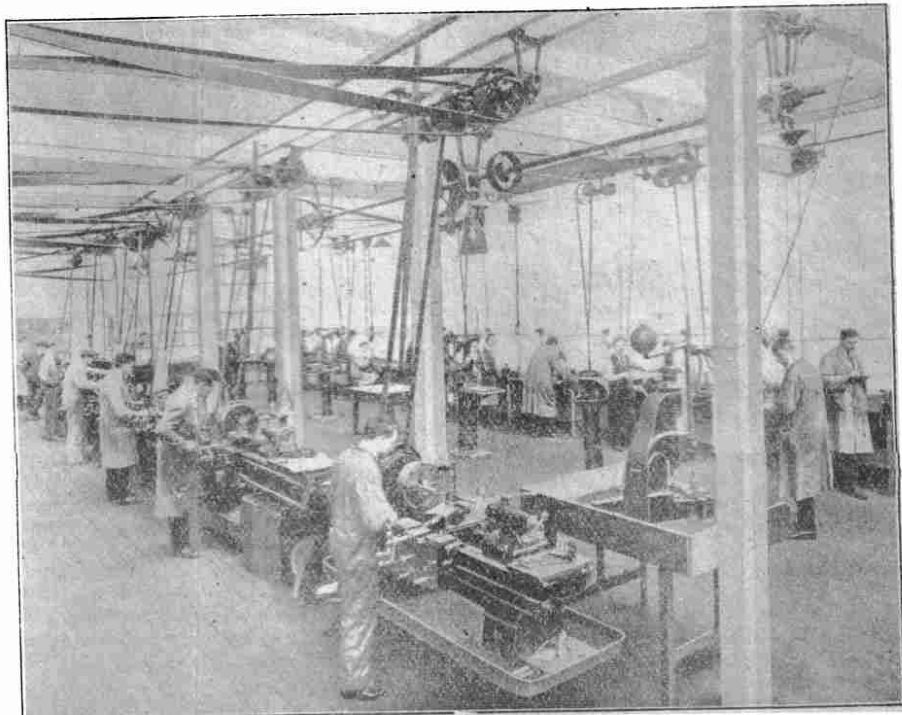
tically, and these are used mainly for inside machining or when a special outside shape is required. From there the shaped pieces go to a tool maker on the bench who takes charge of them from that point, and who is responsible for the final completed tools. He first marks out the shape of each tool on each piece, and then passes them back to a skilled machine man, who either turns them in a lathe, mills the surfaces in a milling machine, or shapes them in a shaping machine, exactly to the markings of the tool maker. The latter workman now takes them back to the bench and finally fits the whole of the parts of the tools together.

Certain parts, principally those which do the actual cutting, are then passed to a hardener to be tempered and hardened. The hardener must be a specialist at his work, otherwise the tools would be spoiled by incorrect handling. After they have been through this process each tool is ground down further to give a good cutting edge and to ensure perfect flatness. The whole of the parts of the tool are then sent back to the tool-maker on the bench, who assembles them and makes the final adjustments.

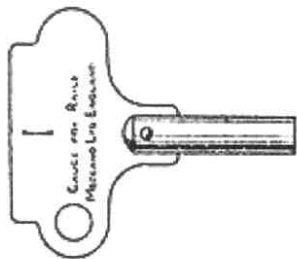
In this room we make the whole of our tools for producing the various Meccano parts, press tools for blanking and piercing, cutters for cutting gear wheels, all our drills, taps and dies, &c. It is really the quality of our work in this room which decides the final accuracy and quality of the finished Meccano parts, and you will understand, therefore, how essential it is that we employ none but the best class of labour.

The machines in this department work to one-thousandth part of an inch, which, of course, helps considerably to ensure the final accuracy of the tools. There are many kinds of tools but only one best, and that is the kind we believe in. A cheap or badly made tool may do good work for a short time, but it has no length of life, and as we require a very large output indeed from each tool, it pays us to have none but the very best.

(To be continued.)



A Section of the Meccano Tool Making Department.

Winding Key.

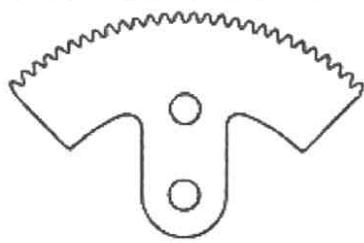
Above is an illustration of the new winding key which accompanies each Hornby Clockwork Train. It will be noticed that it is of special design, the top forming a gauge for the lines. When restoring lines which have been accidentally bent, the correct distance between the rails can be found by using this gauge.

Price . . . 6d. each.

 $\frac{1}{4}$ and $\frac{1}{2}$ Rails.

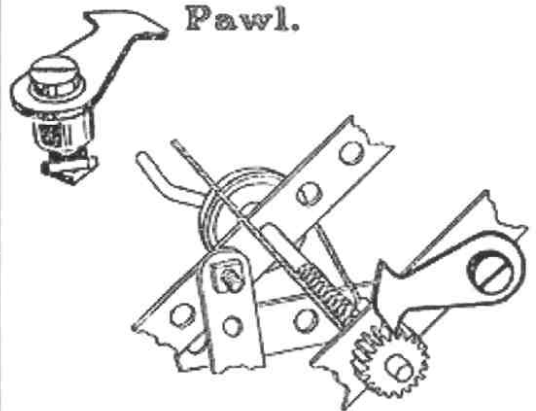
Price for straight or curved rail:

$\frac{1}{2}$ rail each 5d.
 $\frac{1}{4}$ " " 4d.

A New Curved Rack.

This is a new and extremely useful part. It can be used to build up a large gear wheel by bolting four of the parts on to a face plate, two bolts securing each part. A large built-up gear wheel of this kind could be used for driving a Big Wheel, or by bolting two of the curved racks, or only one to a face plate, a partial geared wheel is obtained which could be used in connection with a one inch pinion to produce a to-and-fro rotary movement if pinion is reversed. The curved rack may also be used in several other types of model, for instance in a letter balance, the weight of the letter partly rotating the rack, which engages a pinion, the rotation of the pinion causing an indicator pointer to show the weight of the letter on a graduated scale. This part may only be used to gear with a one inch pinion. It may, however, be arranged to be used to gear with a half inch pinion or worm by an adjustment outside the Meccano Standard.

Price . . . 6d. each.

The New Meccano Pawl.

The above is an illustration of the new Meccano Pawl, and an example of its use. This replaces the present pawl, No. 33. It is shown connected to the side strip of a Crane to hold the load while suspended in the air. This pawl moves freely on a pivot bolt secured by lock nutting to the side strip.

The pivot bolt will be sold as a separate part as it may be used for other forms of pivots such as a pivot for the boss of a crank, intermediate gear wheel or loose pulley.

Pawl, complete - each 5d.

Pivot Bolt with two nuts 2d.

A New Grand Meccano Prize Competition £250 in prizes

A new big Meccano Model Building Contest has started, and we want every Meccano boy to know all about it. There will be hundreds of prizes awarded, including nine prizes in cash to the value of £100, and Meccano Outfits to the value of not less than £150. This time the Competition will be divided into three sections.

1. For boys under 10 years of age.
2. For boys between 10 and 14 years of age.
3. For boys over 14 years of age.

In addition to these prizes the Meccano Guild is offering three awards of £5 each in cash to the member of the Guild who gains the best prize in his Section. Forms of entry may be obtained either from your dealer or from us.

There are no restrictions or entrance fees. Any Meccano boy can enter, and the competitor sending in a simple model made with a No. 0 stands just as good a chance of winning a prize as one sending in a complicated model made from a No. 6 Outfit. This Competition will close on April 15th, 1921.

Section "B" (For Competitors between 10 and 14 years of age)

- J. Fox Mortimer, Jr., 150, West 86th Street, New York. Hook and Ladder Fire Truck
- S. B. Evans, 22, Howard Road, New Malden. Quayside Warehouse
- R. Shillito, 34, Main Street, Wombwell, Yorks. Miniature Colliery
- W. K. Bhausa, 141, Dadar Road, Dadar, India. Indian Giant Wheel
- J. E. Field, 58, Derwent Road, Palmers Green, London, N.13. Swivelling Gantry

First Prize (Divided) - - - £15

Second and Third Prizes (Divided) £16

Additional Prizes of Meccano Outfits and Train Sets.

- F. Godfrey, 3, Russell Place, Norfolk Street, Hull. Conveyor.
- H. Walmsley, 57, Brownlow Road, Horwich. Goods Loco.
- Perino Emile, 1, Rue Lamartine, Nice. Velocimane.
- H. McWilliam, 263, Main Street, Bridgeton, Glasgow. Seaplane.
- G. S. Barrass, 7, Chapel Row, New Lambton, Fence Houses, Durham. Electric Coal Conveyor.
- M. Bronot, 85, Boulevard de Charonne, Paris XIe. Funiculaire.
- C. P. Sharnan, 17, Northumberland Road, Broomhill, Sheffield. Distance Meter.
- D. J. Wakely, The Grange, Church Norton, Near Chichester. Steam Lorry.
- L. Boige, Les Guillemottes, Vienne (Isere). Orchestra Meccano.
- R. T. Gurnett, 46, High Street, Grays, Essex. Meccano Clock.
- G. Cheetham, 156, Horton Grange Road, Bradford, Yorks. Skittle Alley.
- D. W. O. Dwyer, 8, St. Alban's Road, Woodford Green, Essex. A Crocodile Wagon.
- G. Nordahl-Pedersen, Dovregaten 1, Kristiania, Norway. Kicking Sleigh.
- C. H. Rudd, 51, Richmond Street, Barnstaple. Metal Cutting Jig Saw.
- J. W. Dring, 18, Coupland Terrace, Beeston Hill, Leeds. Bogie Wagon.
- T. Carnana, 28, Str. Fra. Diego Hamrun, Malta. Sewing Machine.
- C. A. Mason, 23, Glasgow Street, St. James', Northampton. Combined Morticing and Boring Machine.
- K. Harbridge, 16, Feckenham Road, Redditch. Drop Hammer.
- A. W. Coupe, 9, Delhi Road, Bury Street, Edmonton, N.9. Multiple Spindle Drill.
- C. G. and R. L. Trappnell, Essendene, Clifton, Bristol. St. George and the Dragon.
- D. R. Stewart, Trenchfield, King's Ave., Prestatyn. Clockwork Fan.
- G. Bentley, 26, Morris Road, Crownfield Road, Leytonstone. Try-your-Strength Machine.
- Pierre Lehmann, route Nationale a Dieulouar, Meurthe-et-Moselle. Martinet Laminoir.
- Mosca Maurizio, Via Cavalletto No. 1, int. 7, Genova (Italia). Dipanatrice.
- Renaud Scarcecieau, 9, rue de Frignicourt, Vitry-le-Francois, Marne, P. Promenade en barque.
- Jacques Hersleven, 342, Chaussee de Waterloo, Brussels. Porte Congie.
- W. Knoll, Kinderheirn, Samaden, Schweiz. Forderriemen.
- Orrin, R. Fackler, Aitkin, Minn. U.S.A. Meccanograph.
- E. R. Sinclair Watkin, 146, Gerningham Road, New Cross, London, S.E.14. Motor Lorry.
- Norman Hoyle, "Elmfield," Higher Lane, Lymm, near Warrington. Mono-rail Luggage Transporter.
- J. A. Rance, 35, Peel Road, Wealdstone, Middlesex. Horse and Tip Cart.
- F. Tostrup, Incognito Terrace 3, Kristiania, Norway. Balance.
- P. Jacot, 26, Rue des Victoires, Paris. Ascenseur.

- G. R. Bent, 18, Reddish Vale, Reddish, near Stockport. Motor Stone Lorry.
- L. Radclyffe, "Derwent," Laburnum Street, Blackburn, Victoria, Australia. A Meccano Mangle.
- Eliseo F. Colombo, Domicilio Eucuman 3054 D. to 12, Buenos Aires. Crane.
- Eduardo Puceiro, Lavalle 801, Buenos Aires, Windmill.
- Nicolas Guisepponi, Don Cristobal 1286, Buenos Aires. Trolley Car.
- Yvonne Liot, 4 Quai Brixoux 4, Quimperle. Parapluie sans Couverture.
- R. A. Ivers, Marikuppam, Kolar Gold Fields, S. India. Boy Scouts' Semaphore Tutor.
- H. Webster, 185, John Street, London, Ontario, Canada. Cylinder Press.
- F. J. Hunter, 178, North View Road, Hornsey, N.8. Steam Wagon.
- A. Tulpius, 49, Avenue Wendt, Geneve (Suisse). Grand Huit.
- Gosta Grahn, Teatergatan 23, Goteborg, Sweden. Dredging Machine.
- Theodore Rietzel, 4, George Street West, Roxbury, Mass. Portable Drill.
- Armand Tocabens, 24, Bd. Gambetta Alger, Algeria. Tramway electrique.
- P. Richard, Clinique du Docteur le France, Roscoff, Finistere. Usine d'avions a Moteur.
- Beatrice Shilling, 65a, South Street, Dorking, Surrey. Spinning Wheel.
- V. K. Rangappa, c/o the Trustee, Vizianagram, India. Water-lift "Persian Wheel."
- Joseph de'Conti Manduca, "Eltham House," 57 Sda. Ridolfo, Sliema, Malta. Upper Barraca Lift.
- D. E. Elkis, 6, Peak Road, Hong Kong, China. Mystery Tower in Action.
- L. P. Trotter, Hillgrove, Otago, New Zealand. Modern Windmill.
- G. Ugo, Via Assarotti 10/3, Genoa, Italy. Machine a' Carder la Laine.
- Luis Vazquez de Parga, Calle de Monte Esquinza, No. 11, Madrid. Windmill.
- W. Salter, The Vinerics, Mill Hill, London, N.W.7. Clocked work by weight.
- T. A. Gatley, 504, Liverpool Road, Peel Green, Manchester. Crane Gear Box.
- Eric Desbroulais, The Mall, Amritsar, Punjab, India. Blondin Cable Way.
- W. Muckle, 89, George Street, Willington Quay-on-Tyne. Double Action Steam Pumps.
- Matthew Onderdonk, East Greenbush, Box 29, New York State. Electric Washer and Wringer.
- W. S. Hencke, Stop 147, Shore Line, Willoughby, Ohio. Roller Coaster.
- James Hertig, Rue Midole 12, Besangon, Doubs. Un Phare.
- Charles Rochette, Rambervillers, rue Clemenceau, Vosges. Machine a'onduler le papier.
- J. Hingant, 63, Rue S. Quentin, Havre. Ferry Boat de riviere.
- Franco Palmizi, Via Mentana 9, Bologna, Italy. Macchina da cuocere a bobina centrale.

Section "A" (For Competitors under 10 years of age.)

- Fred Dighton, 147, Florence Road, Wimbledon, S.W.19. Mechanical Digger
- N. J. Pollet, 41, Boulevard Pater, Valenciennes, Nord. Transbordeur Mecanique
- John P. Turner, Jr., 520, West 122 Street, New York. Workshop
- S. Delorme, Rue Bahpt, St. Julien, Mezieres, Ardennes. Cuisine Roulante.

First and Second Prizes (Divided) £20

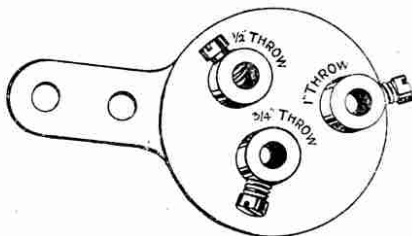
Third Prize - - - - - £4

Additional Prizes of Meccano Outfits and Train Sets.

- L. M. Gibson, 31, Leytonstone Road, Stratford, E.15. Royal State Coach.
- R. J. Hajk, 140, Beach, 127 Street, Belle Harbor, L.I. Motor Plough.
- E. Alberani, Via Barberia, 11, Bologna. Aerial Swing.
- J. Dorling, Delamere Street, Boniface Cliff, Shanklin. Lighthouse.
- P. B. Charles, 2, Brook Mount, Llangollen, Acrefair, near Ruabon. Battle Cruiser.
- R. Colombo, 202, Rue Croix Nivert, Paris 15e A. Loterie Foraine.
- W. Blacker, 4, East Park Grove, East Park Road, Leeds. Football Game.
- R. Dupuy, 57, rue de Barbezieux, Cognac, France. Rouet a'Filer la Laine.
- K. Kenney, 77, Parliament Hill, London, N.W.3. Chassis.
- S. Sabbatini, via Simonetti No. 2, Ancona, Italy. Novo di Pasqua.
- R. Hind, Queens Street, Chatham, Ontario, Canada. London Bus.
- J. N. Pullen, 8, Queens Street, Broadwater, Worthing. Motor Life Boat.
- P. M. Wazink, Delft N., Einde 9, Holland. Tower.
- W. Melville, 44, Woodville Gardens, Langside, Glasgow. Mill Engine.
- M. Solinot, 9, Rue Emilio, Castelar 120, Paris. Escalier Elevateur.

- E. Jeltjes, Nieuwe Gracht 49, Haarlem, Holland. Dutch Drawbridge.
- A. Ladeville, 83, Bd. Sebastopol, Paris. Grue Electrique.
- H. Gordon Hill, Suite 50, Wellsboro Apts, Toronto. Ship.
- M. O. Decugis, 20, Quai du Louvre, Paris 1e. Balancoine.
- Earl Nicholson, Newberry, Mich., U.S.A. Buzz Saw.
- J. Anthony, 10, Stanmore Road, Stevenage. Marble Chute.
- G. Wharton, Ringstead, Kings Lynn. "Overtime" Farm Tractor.
- A. Holmes, 40, Bellevue Street, West Gorton, Manchester. Lift for Toy Soldiers.
- W. Saville, 1, Delamere Avenue, Stretford, near Manchester. Draw Bench.
- J. Murphy, 6, North Mall, Cork. Horse Mowing Machine.
- W. T. F. Castle, St. James' Rectory, Clitheroe, Lancs. Turnip Chopper.
- H. Bryan Hillcoat, Portland Hotel, Buxton, Winch.
- C. J. Morley, The Vicarage, Southwingfield, Alfrton. Crane Truck.
- G. Horton, 183, Hodges Street, Wigan. Bacon Slicer.

Three New Meccano Parts.

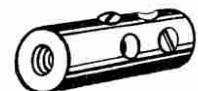


Triple Throw Eccentric, No. 130.

An eccentric is generally used to convert a rotary motion into a to-and-fro motion, and the Meccano eccentric is so designed as to give three different throws. The Throw of an eccentric is the amount of the to-and-fro motion which it can impart.

The three bosses on the eccentric are arranged at different distances from the centre of the eccentric and consequently if the eccentric is secured on the shafting by that boss which is nearest the centre of the eccentric, a less amount of to-and-fro movement will be obtained, namely, $\frac{1}{2}$ in.; if the eccentric be secured by the boss which is next furthest from the centre, a greater to-and-fro movement, namely, $\frac{3}{4}$ in., will be obtained, whilst if it is connected by the boss farthest from the centre, the greatest movement of 1 in. is obtained.

The arm is perforated to enable the eccentric to be connected to any length of strip, as desired. Price 1/3 each.



Threaded Coupling, No. 63c.

A new coupling designed to hold a threaded rod at one end and a plain rod at the other. Price 9d. each.



Dredger Bucket, No. 131.

For attaching to Meccano sprocket chain by means of clips. Price 2d. each.