MAY 1984

THE SHEFFIELD MECCANO GROUP

NEWS LETTER No. 6

Club Officers

Chairman/Acting Secretary:- Richard Bingham

Treasurer:- Peter Mason

Newsletter Editor:- Ken Ashton

Editorial

A glance at the list of forthcoming events shows that Meccano exhibition time is well and truly upon us once again. Whilst I have yet to master the art of completing models to coincide with any given exhibition, it is clear that I seem to be in the minority judging by the models displayed at exhibitions given over recent years. It is a magnificent testimony to the Meccano system that these exhibitions, held world-wide, draw wide public support and interest.

I would particularly like to draw your attention to three summer exhibitions which some Sheffield Meccano Group members may be interested in attending:

1. 26th May...Kirkholt Family Steam Week-end. (Details on Page 10)
2. 22nd - 24th June...Skegex' 84 (North Midlands Meccano Guild)
3. 25th - 27th August...Stoneleigh Town and Country Festival (Midlands Meccano Guild)

If you have never exhibited (your models) to the public, I can only suggest that you give it a try; most modellers find it an extremely rewarding and enjoyable experience.

I have managed to "con" my wife into typing this Newsletter so do not be too surprised if Roy Everitt brings another "Heavy Fright Locomotive" to our Club meetings!

Finally I would like to add my thanks to Bernard, Alan, Robin and Peter for their articles which have made this extended Newsletter possible.

Have a good summer,

Ken Ashton

Meeting Report - 14th April 1984

Once again this was an enjoyable meeting with the weather holding good for the day. The hall was nicely filled as you will see from the Model Report below. Two new members were welcomed: John Fuller (Cumbria) and Geoff Bennett (Sheffield).

During the short business meeting, Mike Cotterill reminded us that we are all invited to the Skegex '84 Exhibition in June. The increased price of hiring the hall at Norton has since been fixed at £21 per day. A vote of thanks was given to Anne Coles for seeing to the refreshments at short notice.

Apologies for absence were received from Alan Grimshaw and Dave Penny.

Richard Bingham.

Models on Show

Robin Johnson displayed a twin-cylinder 'V' motorbike and sidecar in green and gold based on SML 3. Acting on advice from the chairman, the obsolete tyres have been replaced by vacuum cleaner drive belts - very effective too!

Frank Grant had a working model of Locomotion No.1. This was a nicely proportioned model with 6in. diam. driving wheels and 4in. diam. wheels on the tender. The parallel-link motion was a joy to watch.

John MacDonald's Free-lance half-track is now complete.(How does he find time to do it?) As expected, the model is superb. Its main features are the tracked rear drive using a very neat combination of $2\frac{1}{2}$" x $\frac{1}{2}$" double brackets and bicycle chain, front wheel drive, forward mounted winch, 4 speed gearbox, three differentials, and the rear-mounted twin anti-aircraft guns which traverse,elevate and recoil.

Bernard Sage will soon need a bigger car to bring along his models. His latest models are a "Whirlwind" roundabout on its trailer with limit switching on the screw elevating drive, and an "Autoviewer" which automatically displays 32 slides of his own models - a very effective exhibition piece. Bernard also brought his engineering shop with 8 machines operating in sequence, and his double flyboats with its own performing acrobats.

Geoff Bennett displayed his proposed entry for the 1984 Henley Exhibition using a limited number of specified parts. I can only describe it in his own words, "a 3-cylinder thingummy".

Geoff Wilson showed a windmill pump based on a 1940's Meccano Magazine model. Finished in blue/yellow/red/zinc plate, it is powered by a mains motor and featured lights on the tower and ladder work. The smooth running drive was due to a freelance design of reduction gearbox from the mains motor.

Roy Everitt brought two models. The first was the chassis of a 1927 Grand Prix Delage. This famous French racing car was notable in its day for its low profile due to the engine and transmission being slightly offset permitting the driver to sit on the floor of the car alongside the propeller shaft. This was faithfully reproduced on the model which featured a single-plate clutch, three speed gearbox and differential on the rear axle. His second model was a Bascule Bridge built to large scale. The counterbalanced bascule(or drawbridge) was raised and lowered by the French Meccano 6-volt remote controlled motor.

John Fuller's locomotives are, in my opinion, Meccano modelling at its most supreme. The 0-6-0 tank engine is based on a 1928 LMS Dock Tank with short wheelbase. The cylinders are Great Western style with the valves being actuated by rocking levers from inside Stephenson valve gears.

The 0-8-0 is a freelance tank engine with tapered boiler design. Outside Walshaerts valve gears actuate the outside cylinder valves whilst a rack and pinion conjugate valve gear operate the inside cylinder valve. Both models have individually sprung axleboxes, working brakes, adjustable valve gears, screw couplings, spring buffers, full range of cab, smokebox and boiler fittings.

Tom McCallum managed to carry in his giant crawler dragline modelled in red and green. This was fully remote controlled with individual motor drive for each motion. Tom also showed his SML 1 Motor chassis and the SML 24 Gantry Crane, the latter in blue and gold with a redesigned reversing gearbox.

Ken Ashton showed a 4- movement reversing gearbox for cranes. Based on the standard worm and sliding pinion design, this development eliminated sliding output shafts to facilitate more compact motion drives.

Vernon Taylor displayed his well-known No. 10 set Railway Breakdown Crane nicely modelled in blue and yellow, following the leaflet design.

Richard Bingham didn't bring his clock. Instead a Hornby 'O' Gauge Royal Scot.

Julian Coles brought a partially completed model of a modern motorcycle based on a 750 cc MV Augusta. Scaled to 3in. pullies (Julian's spelling!) and tyres, the bike is powered by a crane kit motor in the crankcase represented by a cylinder. The transmission is by shaft drive and the model is finished in dark blue parts.

Chris Thomson demonstrated his block-setting crane much modified from the MM model by Bert Love. Except for the upper half of the commutator (two concentric brass rings bolted to a 2½ in. plastic gear wheel), only standard parts are used. The electronically- stabilised power controller allows remote control to four motors without voltage drop under load.

Mike Cotterill brought a nice selection of models: A Science Museum Steam Engine with a triangular crankshaft serving two equal pressure cylinders. This arrangement eliminates'dead centres' and was used to generate electricity or to power mills. The model was powered by a mains hair-dryer motor; A small fairground with big wheel and roundabout both of 11½ in. diam. Powered by a PDU, the chairs were made from boiler ends and wheel discs and both rides featured coloured lights; a rebuild of the Traction Engine scaled to 5⅓" hub disc driving wheels and featuring axle winch and differential drive.

Peter Mason's model of the Pat Briggs' astronomical clock was a real treat. In order to do full justice to his model, Peter's own extensive description is included elsewhere within this newsletter.

John Howe showed a model of the engine from the 1849 Screw Steam Frigate,H.M.S. Dauntless. This extensively detailed exhibit modelled the two 6ft x 6ft low pressure cylinders of the 580 H.P. original and featured valve reversing linkage. The original plans were by Tredgold are currently held in Sheffield City Libraries.

Phil Rogers brought along a satirical model of a Thatcher Cabinet Meeting at No.10 with Maggie wielding the "big stick". Phil also brought a very amusing model of a "pea-eating" dog (I hope I've got that right!) operated by electronic parts and also an ingenious giant Caterpillar-Track Snake.

Iain McKenzie's stage exhibition was a delight for Hornby Railway lovers. The extensive clockwork layout featured six locomotives and a tremendous variety of rolling stock. I was particularly impressed by the Silver Link pulling the Silver Jubilee train. An electric circuit featured the Royal Scot (Richard Bingham's?). Iain's Meccano models on display were a windmill (illuminated from inside), a Railton saloon car, a roundabout with gallopers and a horizontal steam engine in blue and gold.

Ken Ashton.

HOBBIES & LEISURE EXHIBITION (GUISELEY)

Alan Grimshaw

On March 17th I took part in an exhibition held in Guiseley Town Hall by the local Rotary Club. This was made up of organisations, societies and individuals who cared to show their hobbies etc.
The models I had on display were my own variations of leaflet models, mostly, as follows;

Level Luffing Crane based on Eric Taylor's model.

Set 10 Twin Cylinder Steam Engine.

A Transporter Type Bridge.

Konkoly Horse and Chariot.

A walking tortoise.(This started off to be a model of Tina my Yorky dog).

AIREBOROUGH ROTARY CLUB

present

HOBBIES & LEISURE

1984

An exhibition by local clubs, societies, etc. of their particular contribution to the leisure activities in this area, to be held in

THE GUISELEY THEATRE

Saturday, 17th March 1984 (2 p.m.-8 p.m.)

ADMISSION (PAY AT THE DOOR)
ADULTS 20p Children & OAP's 10p

I was ably assisted by Fred Clark who managed the crane like an expert.(It had it's bad moment but when I got it home the trouble was the spindle of the hoist motor slipping.)
During the morning when I was setting up, a man came and asked me if I was interested in a Meccano K oilcan. Not being a collector I told him Fred Clark would be. Fred paid him a visit and came away with the oilcan, an original knurled handled screwdriver and numerous pinnions etc. from around the 1920's.
During a quiet spell Fred showed me a draft copy of a new publication I understand he is helping with. This is called "Other Metal Construction Systems". He had about 100-120 pages and it only covered items up to the letter L. It looks like being some book.
Altogether a good day.

FORTHCOMING EVENTS 1984

19th May	North Midlands Meccano Guild, Meeting (Thurgaton)
26th May	North West Meccano Guild, Exhibition (Kirkholt)
22nd-24th June	North Midlands Meccano Guild, Exhibition (Skegness)
25th-27th Aug	Midlands Meccano Guild, Exhibition (Stoneleigh)
31st Aug-1st Sept	Henley Exhibition
15th September	North Midlands Meccano Guild, Meeting (Thurgaton)
13th October	Sheffield Meccano Group, Meeting (Norton)
10th November	North Eastern Meccano Society, Exhibition (Darlington)

MEKKIN' A MECCANO MODEL

Bernard Sage

First thing tha wants to do o'coorse is to think what soort o' model tha wants to mek. When tha's done that, tha wants to get thissen off t'library and gerra book or two aht on't real thing o' what tha wants to mek so tha can learn a bit abaht it. Then tha can start. Once tha's got gooin' tha'l probably find tha'rt short o' certain parts so what tha'll have to do then is to buy 'em from M.W. (if tha can affoord it) or else borrow 'em off a mate - if he'll lend 'em thi. When tha's got thi model finished, tha can either purrit in't winder or else tek it wi thi to thi next Club Meeting for 'em to admire. O'coorse they'll allus be some clever dick theer to say tha shoulda donedifferentnot to worry, 'e might come up wi' a bit o' good advice, tha ne'er knows, but any rooad tha's done thi best an' enjoyed mekkin' it, an't tha?

ASTRONOMICAL CLOCK.

Designed by Patrick Briggs.

Built (with modifications) by Peter Mason.

This clock is built from GMM SML6 from a design by Patrick Briggs. The main dial shows time in hours and minutes in the usual way, and there is a second hand. The pendulum does one complete swing in two seconds, so the escapement ticks once per second, and the second hand moves likewise. The right-hand dial shows time on the twenty-four hr. clockand this is used to drive the other indicators. The top dial shows the state ofthe tide at London Bridge (I had to choose somewhere, and there isn't much tidal movement on the Sheffield canal!) The left dial shows the age of the moon on the inner ring; this is measured in days since the last full moon. On the outer ring it shows the time at which the moon will be at its highest in the sky; this varies from midday for the new moon to midnight for the full moon. Finally the model moon shows the moon phase (although you can work it out from the left dial).

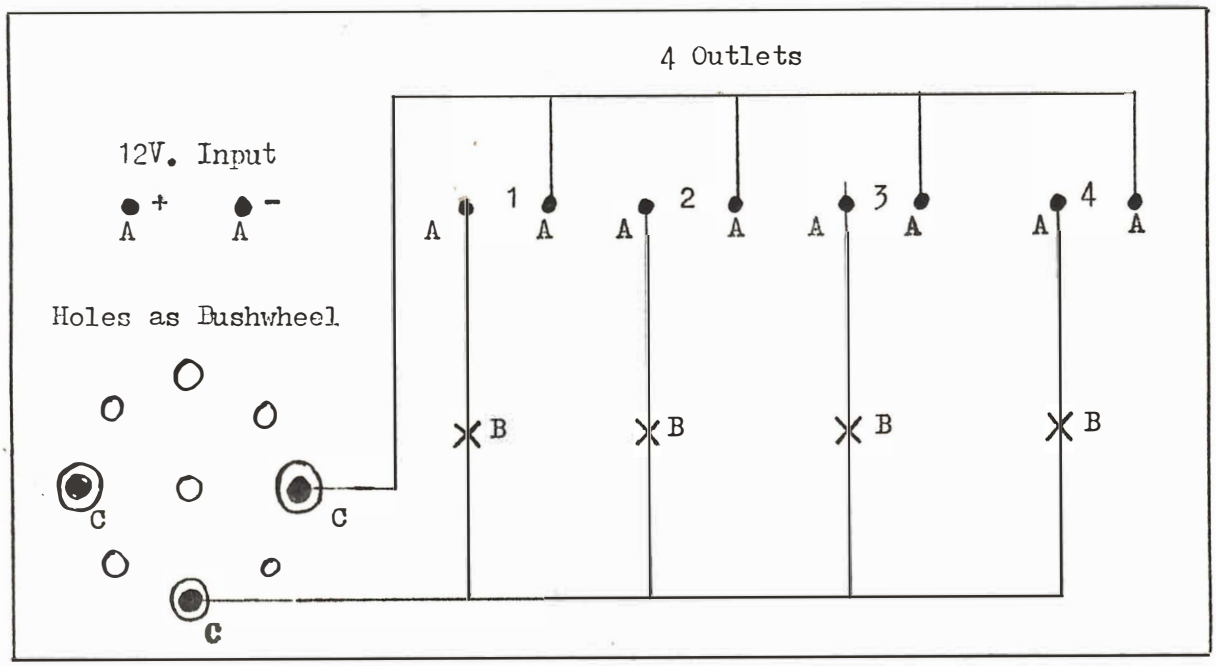
One of the best features of the design is the escapement; anyone who has spent hours trying to adjust one based on the usual sprocket wheel and angle brackets will appreciate that this one, though somewhat oversize, is easier to get right.
It is an anchor escapement, which is a recoil type; that means that at each tick the second hand moves forward and then recoils back slightly. The scape wheel makes use of one of those features of Meccano that make you ask "How did Frank Hornby think of that?" For a Royal pendulum beating seconds you need a scape wheel with 30 teeth; there is no such wheel in the Meccano system (if you discount the Argentine 30- tooth pinion, which is too small). If,however, you bolt together a ring of 5-hole curved strips you end up with a circle with thirty holes. Just add some spokes and angle brackets and you have your wheel.

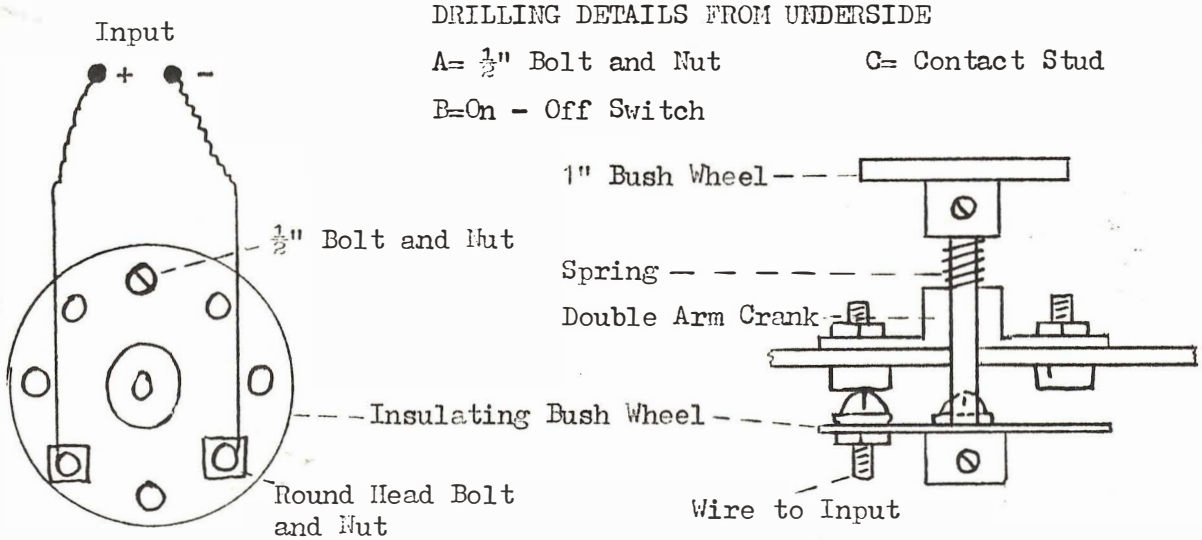
Another good feature of the clock is the winding drum; it is a self-maintaining type, which means that when you wind the clock up you do not stop it or make it lose time. On a simple alarm clock, if you take up the pressure on the winding knob , as though you were going to wind it up, you will find that it stops after a couple of ticks. On quality clocks there is a self-maintaining mechanism to keep power on while winding takes place. This clock uses a "sun and planet" arrangement.

I have not attempted to make the clock run for too long on one winding, because it is fitted with an automatic rewind mechanism; when the weight is nearly at the bottom it triggers a power-drive motor to wind it up again.

CONTROL BOX FOR MODEL CRANES

Alan Grimshaw





The control box features a single reversing switch serving four independent on/off switches for each crane motion. The board is made from any suitable insulating material (eg. Formica) cut to fix to a suitable box. The wire used is bare copper and soldered joints are recommended.

Construction is self evident from the sketches. The ½" bolt in the insulating bush wheel locates in the board to positively lock the reversing switch in position.

(Editors Note: This arrangement is only suitable for LOW VOLTAGE use.)

IN PASSING

Did anyone see the ITN News at 5-45 around the beginning of April which showed an account of a record breaking Meccano model. I've only heard this "second-hand" but it appears the record claimed was the "biggest Meccano model" built by two guys. The model was probably a bridge or a crane. Can anybody enlighten me?

The Editor.

NOTHING SERIOUS

It is difficult to conceive anything quite so sad as a Newsletter Editor with nothing to edit. The tell-tale signs were there to see for those of us present at the last meeting - a dry nose, glassy eyes, faltering step and a general air of having made the short journey to the end of his wits. I take up my pen to put him out of his misery, but not without a certain diffidence in addressing such learned Meccanomen.

Take a look round the Norton venue of our illustrious Group and on all sides you will see disciples of Frank Hornby, their eyes gleaming with the light of pure intelligence and their super-models vieing for supremacy. In low urgent voices they debate torque, tolerance, symmetry and the possibility of plastic worms: the air is filled with the merry rattle of nuts and bolts and all the latest exciting news about Richard's clock.

I am burning to learn their secrets and would like answers to the following:-

(1) How do they clean and maintain old Meccano?
(Do their wives object to rust in the sink?)

(2) Where can one buy a replacement clockwork motor spring?

(3) Is there any likelihood of Mick Burgess supplying replica brushes for my Trix motors?

These are deep waters and I doubt if I shall get satisfactory answers (especially about the Trix motors) but all the same there is much to learn, new comrades to meet over a cup of tea and trading to be done at the back of the room where a veritable Aladdin's Cave of merchandise is laid alluringly to tempt us.

To the discerning visitor the highlight of these get-togethers is of course the business meeting for which a typical agenda is as follows:-

1. Chairman's remarks.
2. Treasurer's report.
3. Newsletter Editor's complaint about lack of material.
4. Other matters.

On this occasion there is little business and, sensing the disappointment of the assembled house our worthy Chairman, equal as always to the occasion, rises to his feet amidst vociferous applause.

'Gentlemen, I do not propose to detain you long'(renewed applause)'but, as some of you know, today is the birthday of our good friend Bernard Sage and on this auspicious occasion it behoves me to say a few words. I have decided instead of a speech to read to you a few verses written in his honour and jotted down this afternoon on the back of a 1916 Meccano Magazine I happened to have with me at the time'.

There is further applause and someone seated behind me bangs the floor with a goodish-size walking stick while our Chairman climbs on a nearby table, assisted by the Treasurer and Newsletter Editor, clears his throat and begins:-

'You are old, Father Bernard' the Meccano boy said,
'And your models have reached quite a size;
Yet you still turn them out both in green and in red -
Do you think at your age it is wise?'

'In my youth' Father Bernard replied to the lad,
'I feared it might injure the figure;
But, now that I'm perfectly sure it's not bad,
Why I build them still bigger and bigger'.

'You are old,' said the boy, 'as I mentioned before
And your plates have become very matt;
Yet you still turn out steam-yachts and flyboats galore -
Pray, what is the reason for that?'

'In my youth,' said our Sage as he reached for his spanner,
'I kept all my parts very supple,
With a 'K' Oil-can costing just three and a tanner -
Mick Burgess will sell you a couple'.

'You are old,' said the boy, 'and your wrists are too weak
For anything tougher than plastic;
Yet you build us a penguin, complete with a beak -
What makes you so simply fantastic?'

'In my youth,' said our Bernard, 'Frank H. ruled the land
With his gear wheels all made out of metal;
And the muscular strength which this gave to each hand,
Has kept me in wonderful fettle'.

'You are old,' said the lad, 'one would hardly suppose
That your eye was as steady as ever;
Yet you balance a worm on the end of your nose -
What makes you so awfully clever?'

'I have answered three questions' said Bernard (quite tough)
'Nosey people the worst kind of folk is!
Do you think I can listen all day to such stuff?
Be off, or I'll send you to Stokys!'

There is a rapturous applause and a birthday cake is presented with the motif "Happy Birthday" picked out in Meccano nuts set in the icing - in my view an unnecessarily dangerous symbolic gesture which could prove fatal to an absent-minded recipient! The meeting is brought to a close and we drift out into the Spring sunshine.

I cannot absolutely guarantee the accuracy of the above meeting report as the room was warm and I may have nodded off before the last item. Of one thing, however, I am absolutely sure - a good time was had by one and all and we look forward to the next occasion.

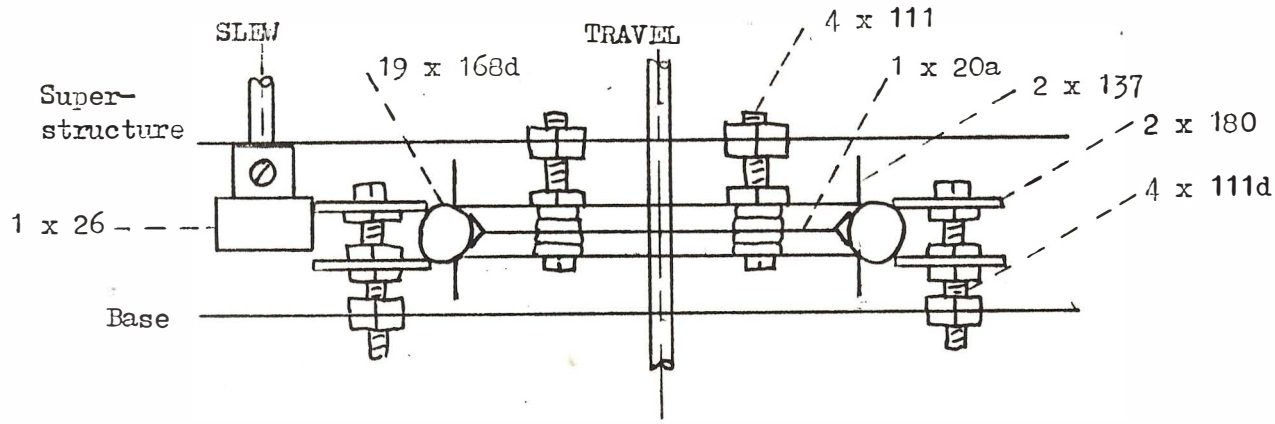
Robin Johnson
(with apologies to Lewis Carroll)

Wife Note: When you see Ken with a dry nose, glassy eyes, faltering steps and at the end of his wits it simply means that Richard has smoked Ken's last Park Drive. And yes we object most vehemently to rust left in the bottom of the sink and to the lbs of Meccano nuts and bolts rattling around in the vacuum cleaner.

3½in. GEARED BEARING.

Hank Stone.

Over the years much Meccano Magazine space has been taken up by bearing designs for crane superstructures. The use of ball bearings has now almost become standard Meccano practice due to the "non-tilt" characteristics of these bearings. The 7½in ring/6in circular plate with 52 balls serves most purposes and this design is now well known among modellers.
For small scale cranes (eg SML 30-Railway Breakdown Crane),a bearing of reduced diameter could prove useful. The design shown below gives a geared ball bearing of 3½in. diameter:-



Whilst construction is clear from the drawing, one or two points should be noted:-

1. The 2in. pulley can have a boss, but to minimise the risk of centre shaft binding, it is recommended that the boss is removed.
2. The distance between the flanged wheels,as controlled by washers, alters the stiffness of the bearing: the nearer the wheels, the tighter the bearing.
3. The nuts on the inner surfaces of the gear rings should be "square" to the edge to prevent contact with the balls. Additional ½in bolts should be used around the gear rings to ensure rigidity.
4. For optimum operation it is suggested that a smear of grease is applied over the balls.

Parts Required.

1	x 20a	4	x 111d
1	x 26	2	x 137
4	x 111	19	x 168d
4	x 111a	2	x 180

NEWSLETTER No. 7

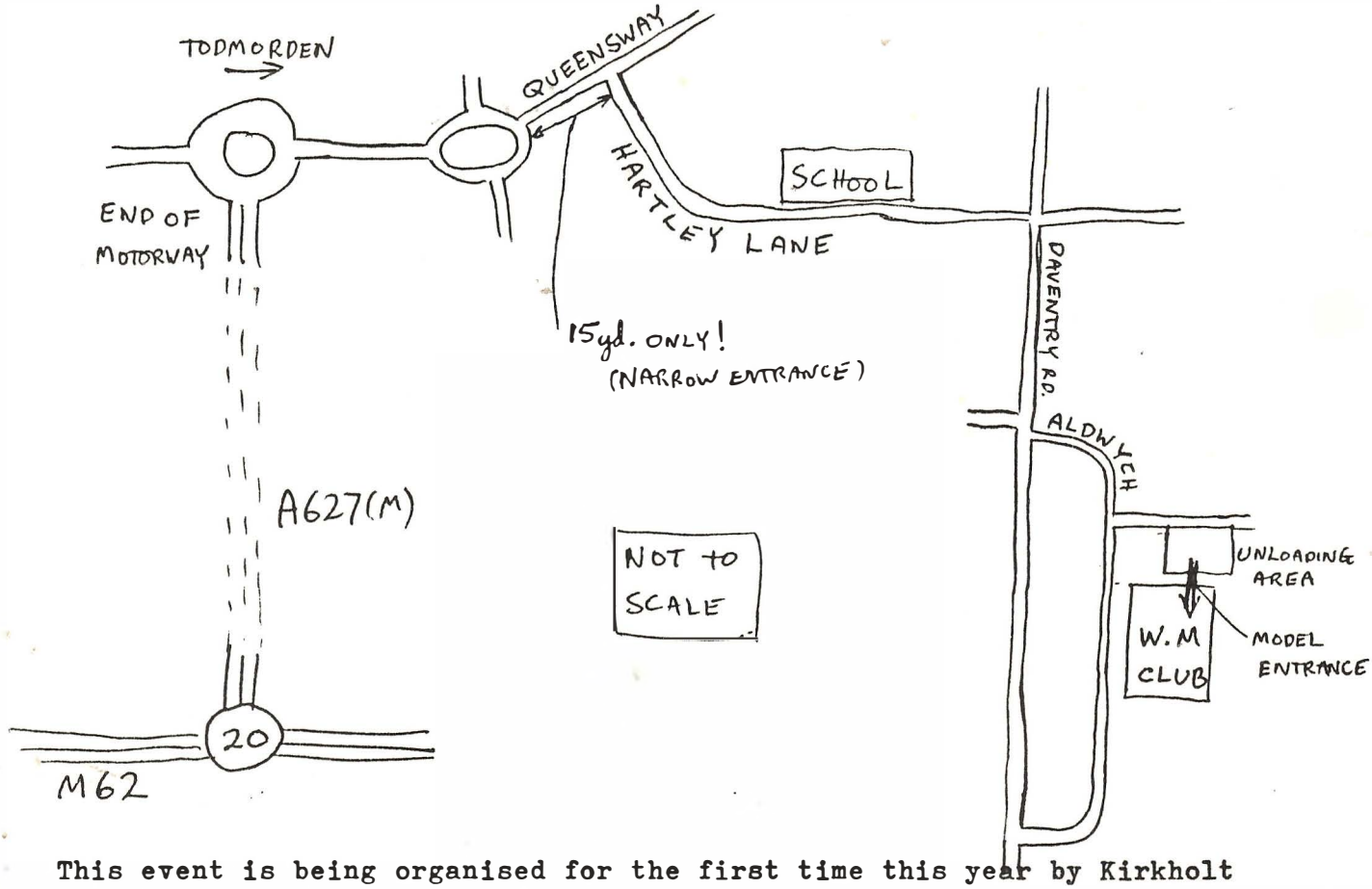
The Editor

The next issue of the Newsletter is planned for publication prior to the next meeting of the Sheffield Meccano Group and will hopefully be circulated by mid-September 1984.

Contributions are invited for Newsletter No. 7. These may be in the form of articles, news items, Club matters, letters (for publication) or, indeed, anything which you think may be of interest to other readers.Newsletters can also carry advertisements of your Meccano sales/wants etc.

If your contribution has a sketch or drawing and some description is required, (eg. building instructions) and you don't feel upto writing it, you can just provide me with details of the main features and I will provide the text.

KIRKHOLT FAMILY STEAM WEEKEND SATURDAY 26th. MAY 1984. (Nr. ROCHDALE)



This event is being organised for the first time this year by Kirkholt W.M.Club and we have been asked to stage a Meccano Exhibition in the Function Room, on the Club premises. The interior is very well furnished with fitted carpets, plush seats, polished tables,&c. and could not be more different from the traditional W.M.Club image. We have been allocoted an area of about 500sq.ft. with 80ft. of table and freedom to use the stage if required. Programmes for the event, mentioning the Meccano Exhibition, are already in print and there will be advertisements in the "Manchester Evening News" mentioning the club by name. Television coverage is also in hand.

The Exhibition is due to open from 11.00 AM. to 5.00PM. and models can be unloaded from 9.00AM. onwards. No special passes are needed to admit cars for unloading purposes,before 11.00am. Individual passes enabling you and your family unrestricted access all day will be issued on arrival. After unloading,vehicles should be removed to the main car park beyond Hartley Lane. Free sandwiches will be available for exhibitors during the afternoon.

Please inform John Anstey, Exhibition Organiser, not later than the 18th. May, how many passes you will need and he will be able to answer any further questions.