Build yourself a sailing dinghy

meccano magazine

May

1s.3d.

the practical boy's hobbies magazine

1964

IN THIS ISSUE

- Jerry Ames on Grand Prix greats
- Getting started on aeromodelling

MECCANO

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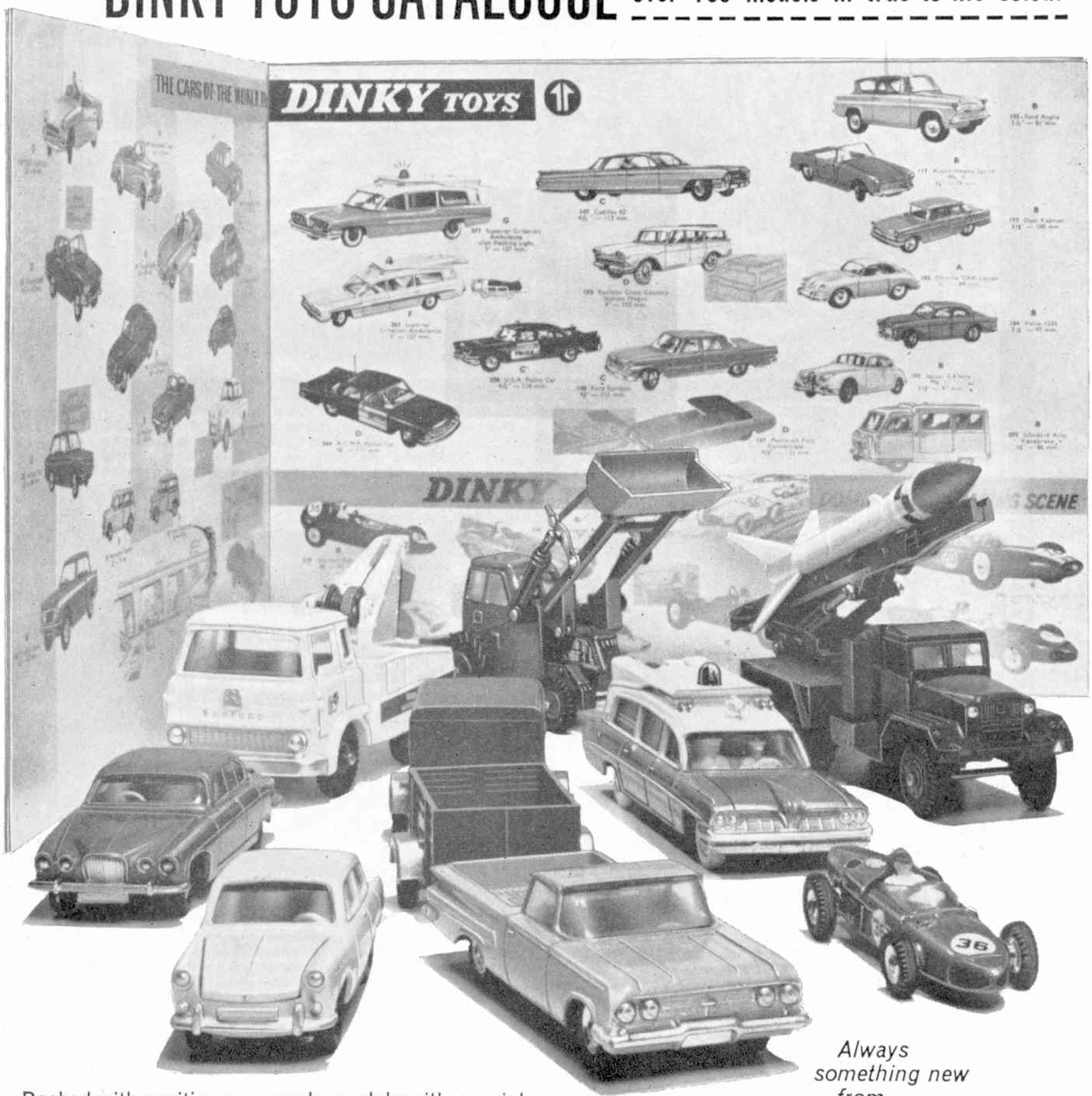

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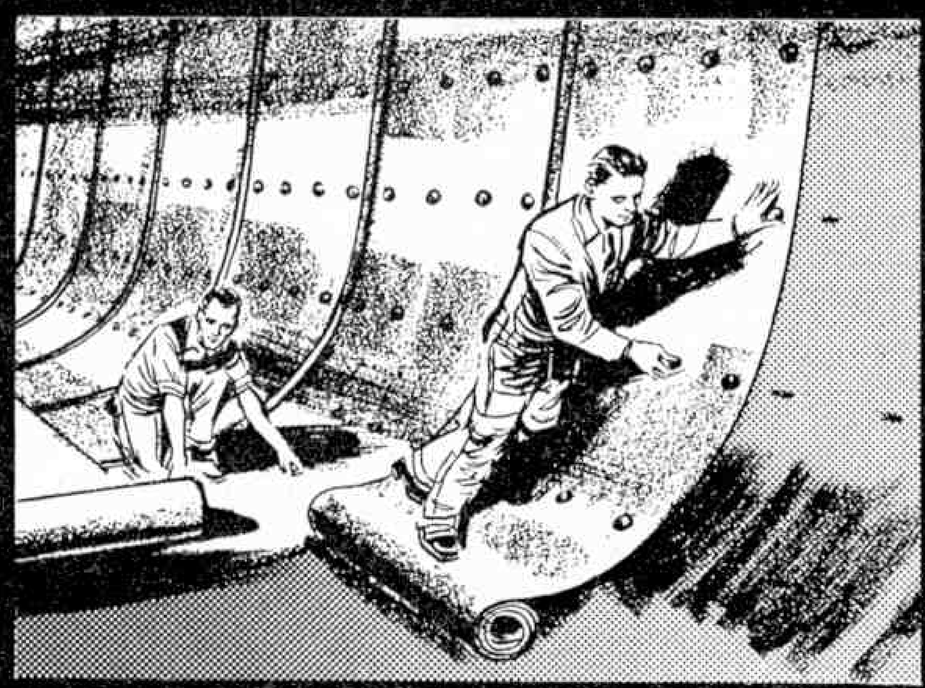
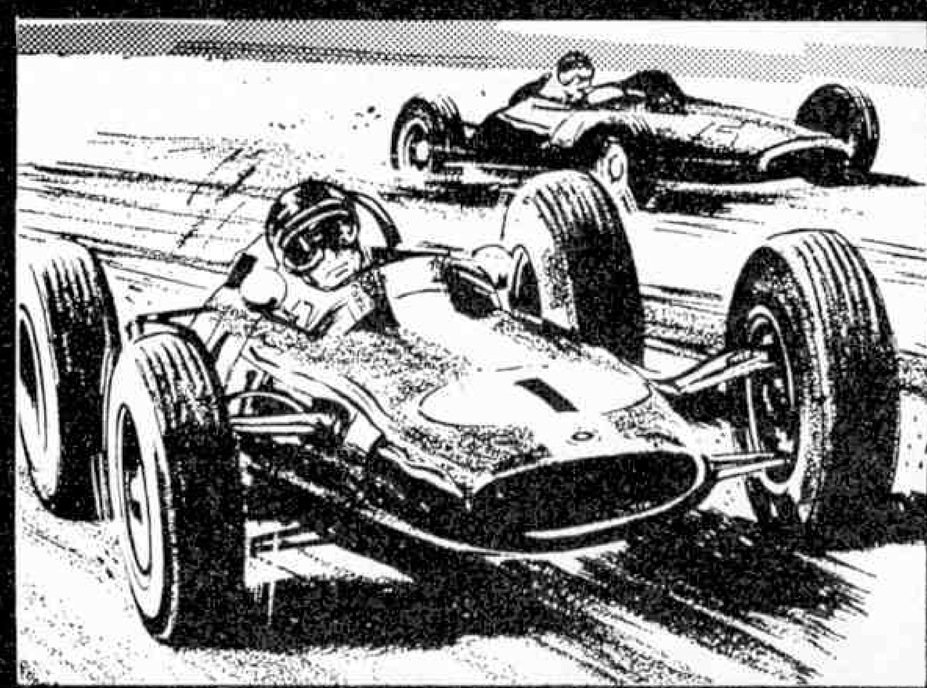


WATERTIGHT ARGUMENT

Nothing beats rubber for making things watertight. That's what the Sunderland & South Shields Water Company decided when it came to repairing their badly cracked 12-million-gallon reservoir. They called in the Dunlop Plant Lining Division who lined the whole 3 acres of surface—using 75 tons of sheet rubber and vulcanised panels. This made it unnecessary to build a new reservoir, which would have cost £500,000.

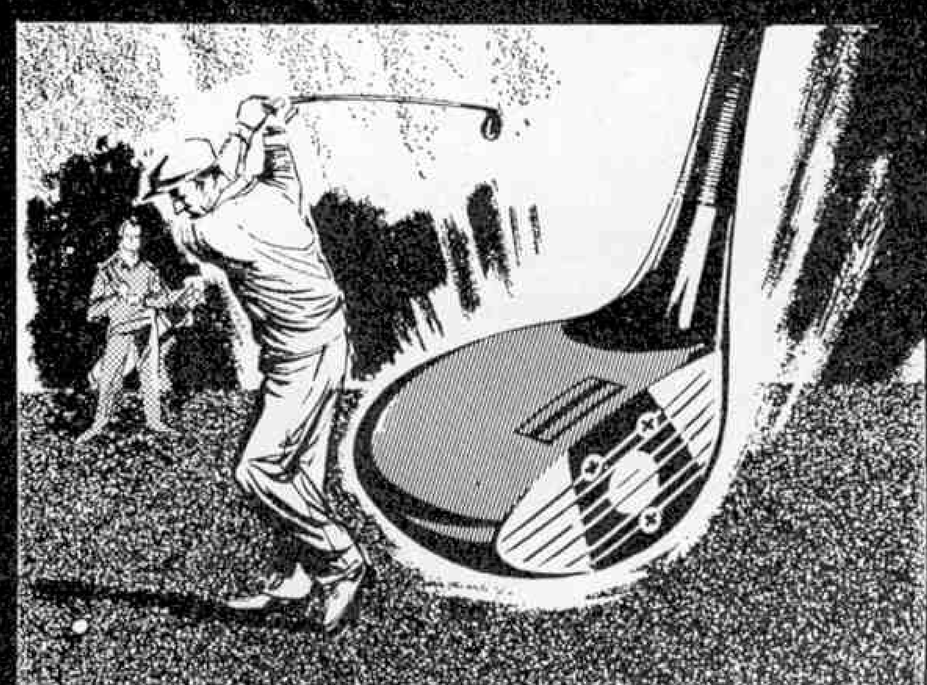


RACE TRACK "FLYING SCOTSMAN"

There's long been a "Flying Scotsman" on British Railways, and now there's another—even faster—on the motor racing tracks. For that's what they call Jim Clark, who became World Champion Grand Prix Driver last September when he was only 27 years old. Like the cars of all Grand Prix winners over the last five years, Jim Clark's fantastic Lotus 25 was equipped with Dunlop tyres.

RUBBER "BALLOON" SEALS MINE TUNNELS

Dunlop have developed a new safety device for coal mines. This is a large rubber/nylon bag covered with Terylene netting. In an emergency it is placed in the mine tunnel, inflated with nitrogen and filled with 21 tons of water, forming a solid "wall" which prevents the spread of fumes and lessens the force of explosion. Should it burst, the water spray helps to extinguish the flames.



DUNLOP MAKES GREATER IMPACT

Dunlop Sports Company recently introduced a new range of golf clubs called "Powerpoint". These were designed in consultation with Arnold Palmer, the world's top golfer, who used them in winning last year's Australian Masters' Tournament. The clubs are called "Powerpoint" because they have a specially weighted impact area, marked by a gold point, which helps players to hit the ball with greater force and accuracy.

DUNLOP

SYMBOL OF PROGRESS

CFH/PR4/4

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IN THIS ISSUE

A boat you can build	4
Mailbag	9
Getting started on aero modelling	11
Boxing cleverly (photography)	15
Grand Prix	18
The Fly Baby	20
Start exploring	23
Trout fishing	23
Shopping	24
Cartoons	27
Build Blackpool Tower	30
Make a food mixer	32
Wedding cake on the move	33
Tree—building	34
Vauxhall Viva and Bedford tipper	36
Building an office block	40
Longdon, Newborough and Easthyde Railway	41
What's your problem	43
Stamps—thermatic or topical?	45
Round the societies	47

Thanks for letting us know

You certainly took us at our word when we asked you to write to us and tell us how you liked your new-style magazine. We received hundreds of letters. Some were from readers who were disappointed with the changes, but most, we are happy to say, were pleased. So the verdict was in our favour.

Thank you.

We were surprised by the size of the number of younger readers who want to read regular articles on chess. Well, a feature is planned to take its monthly place in this magazine later this year. Many readers wanted a fun and jokes page. They better turn to p 27 of this issue. By the way, one interesting feature of all those letters was that, in the main, it was the younger readers who liked what we were trying to do, although plenty of our senior enthusiasts also wrote to congratulate us.

We aim to please everybody, but that is not always possible. Still, in this issue there are new features which we know will have keen, regular readers. When John Atkinson wrote his article on getting started with control line aircraft modelling (p 11) we knew it was a winner, and we are sure most of you will agree with our judgment. Bill Oakley starts a new series on cycling (p 23). His articles are straightforward and practical, full of the things the young cyclist needs to know. And that is how we plan all our features should be: articles that make you start doing things, trying new skills; making and building. It's practical stuff— for practical boys.

next month John Atkinson writes about preparing to fly your model aircraft when you have made it, and Jerry Ames continues his story of the Grand Prix. R. H. Mason concludes his series on taking good pictures with a simple box camera, when he writes about composition.

Ordering the Meccano Magazine overseas
Readers overseas can order the *Meccano Magazine* from Meccano dealers or direct from the publishers.
The subscription rate for 12 months is the equivalent of 20/- sterling at the current rate of exchange.

Above: New materials and new construction methods go into the building of this low-priced dinghy, seen here slicing through the water. She handles like a thoroughbred and is easy to build. And yet she costs no more than a TV set.

Opposite page, top: Light enough to be carried on the smallest car. At 98 lb the dinghy can be lifted easily by two people. There is a special roof rack which fits most cars, but any roof rack will do so long as the boat rides on it upside down. She cuts the air quite smoothly and the car behaves normally.

Opposite page, bottom: Eight girls from Dorking Grammar School built this dinghy from a kit in less than 12 hours. They say you can't teach an old dog new tricks—but UFFA FOX agreed that he'd learnt a thing or two about boat building from these budding sailors.

A boat you can build

In this article we have not attempted to give you detailed plans or instructions on how to construct a sailing dinghy, but rather to give you enthusiasm to persuade your father to buy a kit and then help him build one.

KNOWING THAT many of our readers would be thinking about building a sailing dinghy at this time of the year, we went along to the 'Boat Show' this year to see if dinghies in kit form really were as easy to build as the advertisements say they are.

We saw quite a number, but not being highly skilled at carpentry or having too much time to spare, were getting rather depressed until we met Jack Holt and the Mirror Dinghy.

Here we felt was just the type of sailing dinghy you could build and have a lot of fun with. It can be carried on the top of any car however small which is useful whether you want to take it on holiday with you or to your nearest sailing club, and can be used for fishing or with an outboard motor.

As a sailing dinghy it is a one-class boat, identical in shape and measurements to every other boat in that particular class, so that in a race the winner is not the one with the most highly developed boat, but the one who is most skilful at handling his craft. And you won't have much trouble to find people to race against as over 1,200 Mirror dinghies have been built already. You will see from the price list that the kits cost between £50 and £65—much the same as a T.V. set.

Designed by Jack Holt, one of the world's foremost yacht designers, and by Barry Bucknell, TV handyman, the dinghy is big enough for the average family to go cruising in, light enough for one man to lift, and small enough to be carried on top of the smallest car. She is easy to sail, and probably most important of all, in kit form, she is simple enough to be assembled by a teenager with no special tools. Recently, eight girls from Dorking Grammar School built the dinghy from the kit in less than 12 hours.

The builders added some fabulous extra features. For instance, those red Terylene sails you can see in our cover picture; who would have thought it possible to have that kind of feature with such a low-priced craft?

When these prototypes had been built, the boat was tested and tested; they even tried to sink her. But the dinghy passed all the tests with flying colours.

The method of construction is new for modern boat-building, yet the 'stitch and glue' method is one of the oldest boatbuilding processes known to man. The Vikings used it. The Polynesians still do—stitching the skin of the hull together, then waterproofing the seams. The kit comes with fully illustrated step-by-step instructions for building and sailing.

Stitch and glue

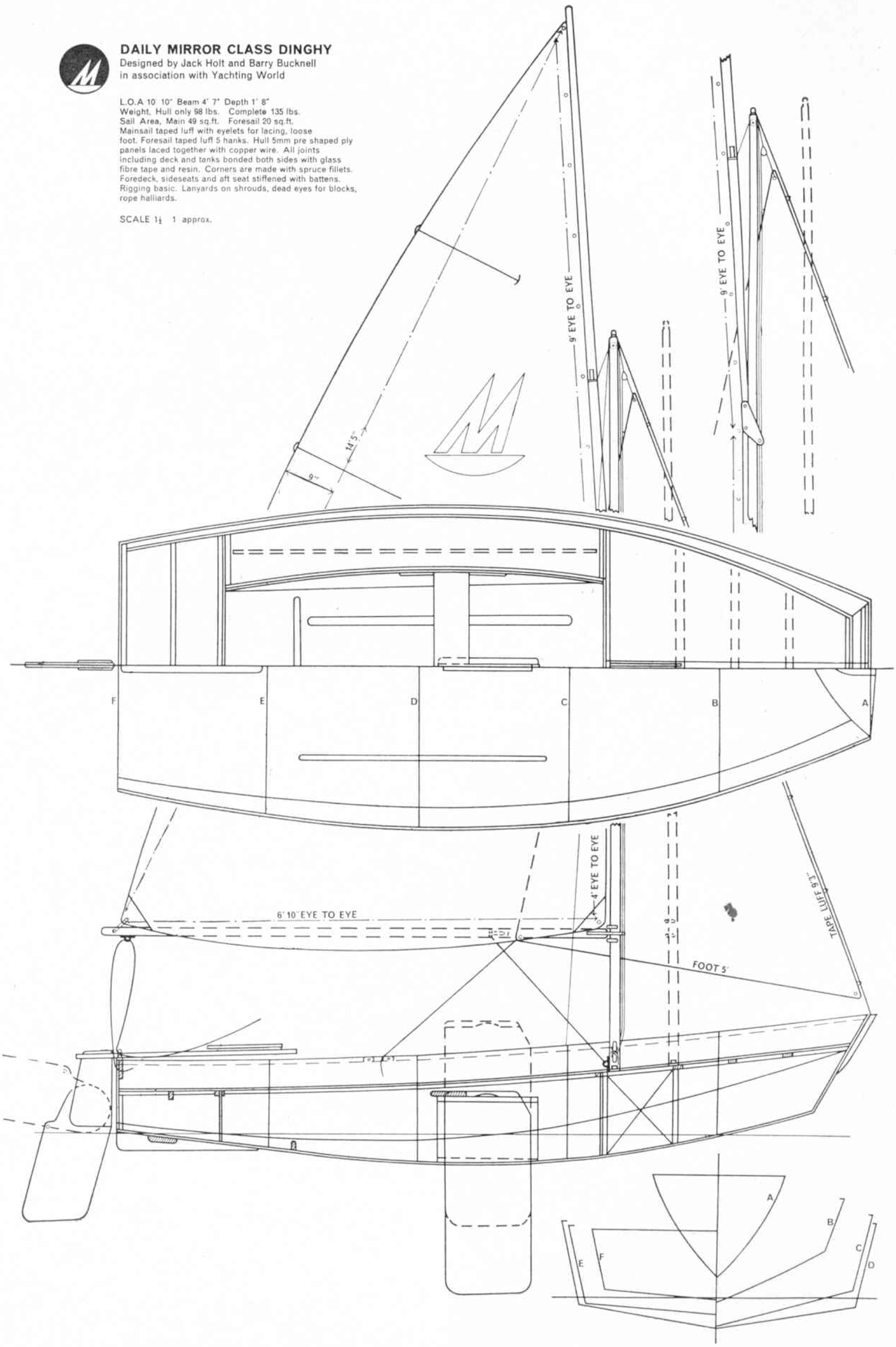
'All I used,' said one man who built this boat, 'was a drill, a pair of pliers and two sons.' You can tell your father that he does not really *need* two sons; one son will do. Most people take about a 100 man-hours (or boy-hours) to get the kit ready for the river or the sea. Now more about the stitch and glue method.

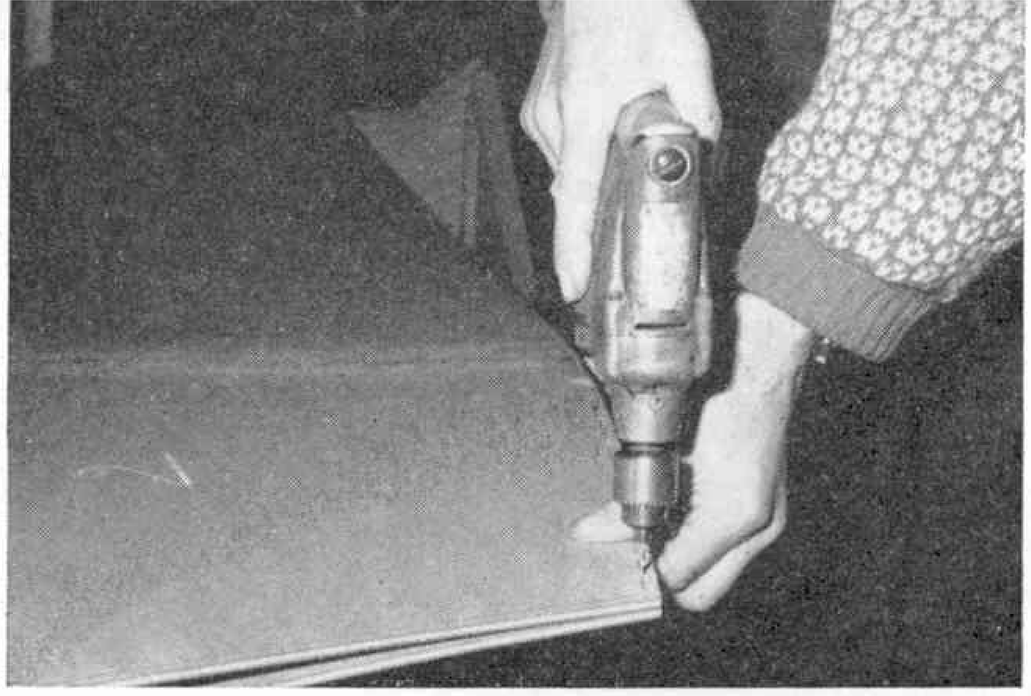
DAILY MIRROR CLASS DINGHY

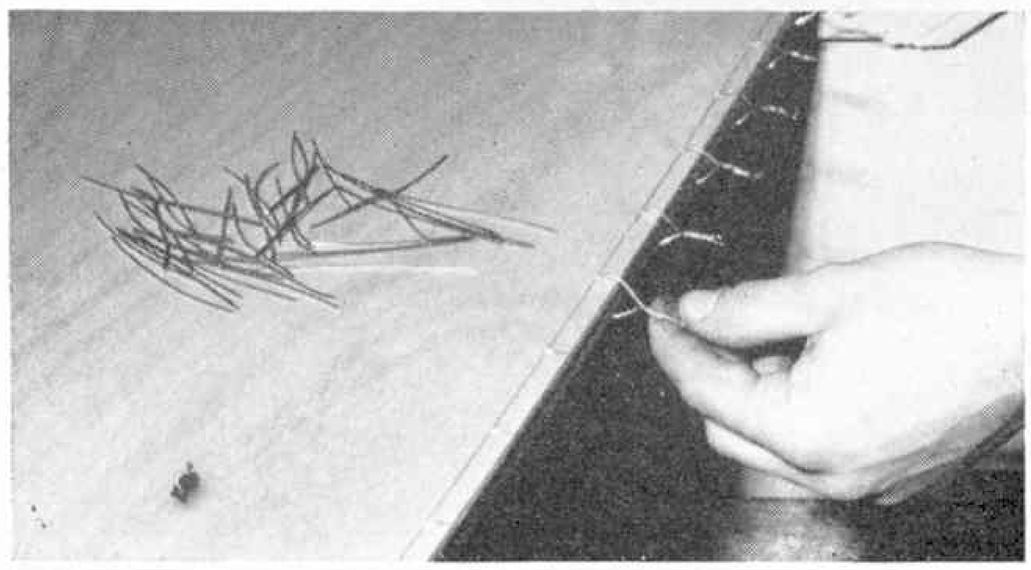
Designed by Jack Holt and Barry Bucknell
in association with Yachting World

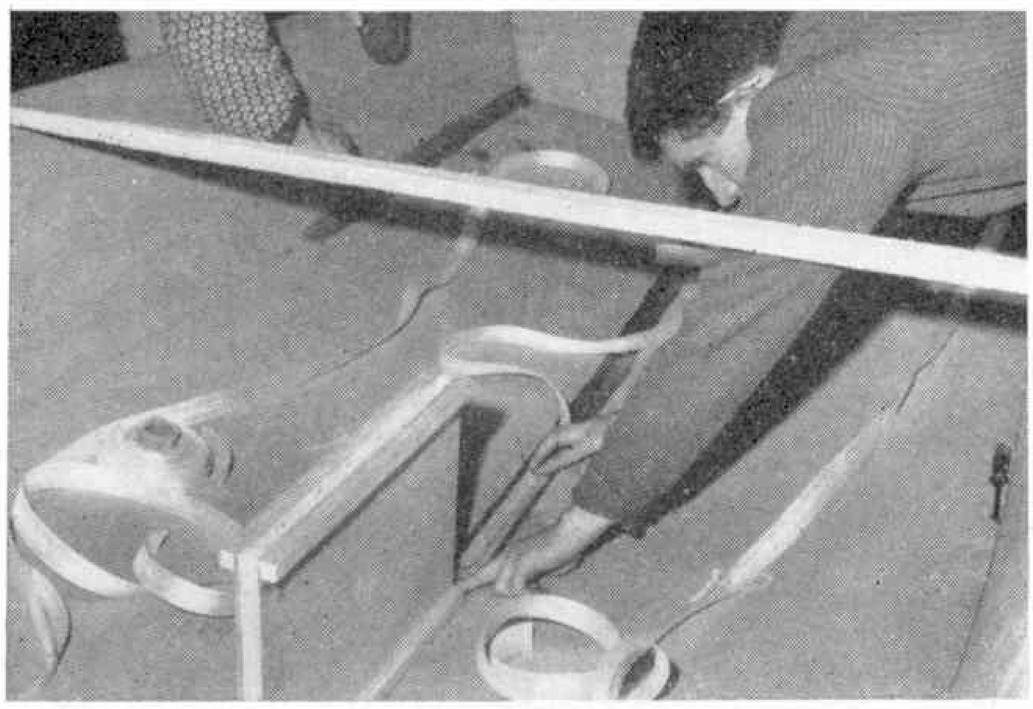
L.O.A 10' 10" Beam 4' 7" Depth 1' 8"
Weight, Hull only 98 lbs. Complete 135 lbs.
Sail Area, Main 49 sq.ft. Foresail 20 sq.ft.
Mainsail taped luff with eyelets for lacing, loose foot. Foresail taped luff 5 hanks. Hull 5mm pre shaped ply panels laced together with copper wire. All joints including deck and tanks bonded both sides with glass fibre tape and resin. Corners are made with spruce fillets. Foredeck, sideseats and aft seat stiffened with battens. Rigging basic. Lanyards on shrouds, dead eyes for blocks, rope halliards.

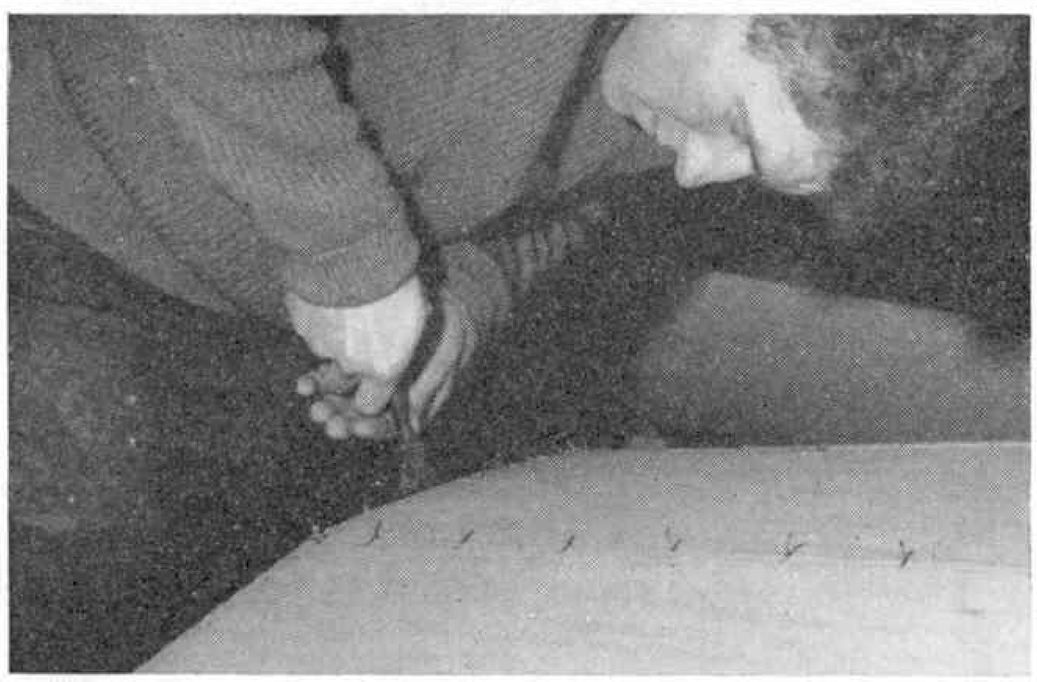
SCALE 1½ 1 approx.

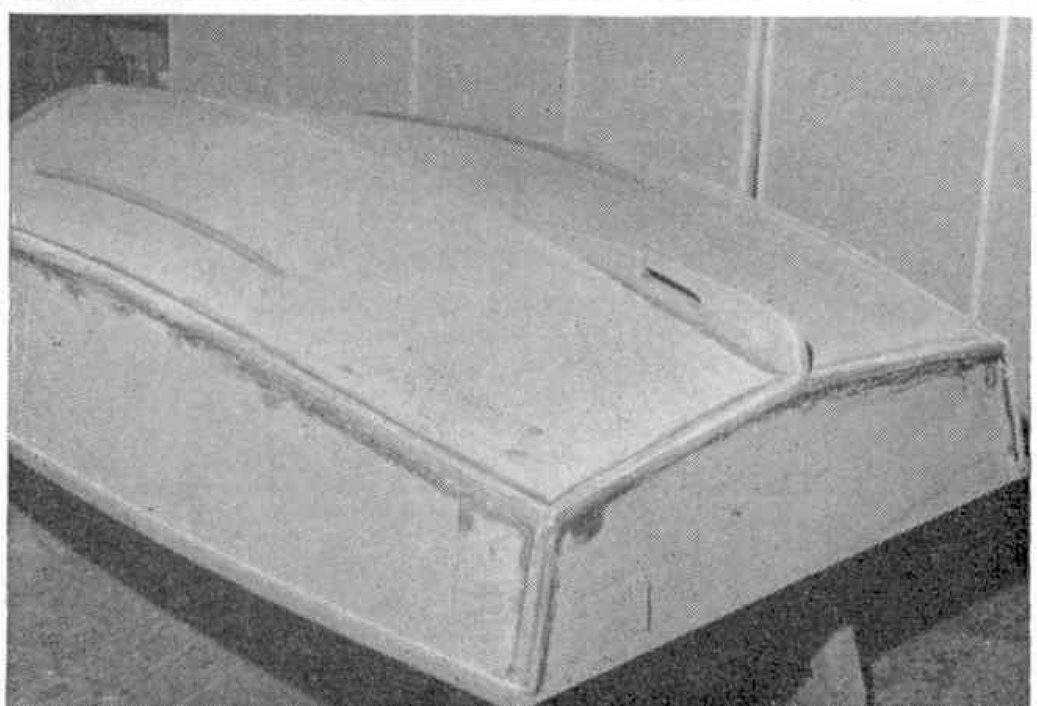












The first picture shows you holding two pre-cut pieces of plywood together while you drill holes along the edges to be joined. And there's no need to worry if you have no electric drill. The kit does not involve you in expensive tool-buying. A hand drill is a bit slower, but it serves just as well. Now for the stitching. The second picture shows the two pieces of plywood lined up and being stitched together with short lengths of copper wire. When the six major parts of the hull have been stitched together it already looks like a boat. Picture three shows glass fibre tape being laid over the joints which have been covered with resin. When the tape has been laid, cover it with another layer of resin.

The wires were just temporary fasteners. The resin and glass fibre are doing the job now. Picture number four shows the hull turned over and the twisted ends of copper wire being cut off. The fifth picture shows the hull turned over so that all outside joints can be smoothed. Cover them with resin, then with glass fibre, and then resin again. The hull is ready for sanding and finishing.

CHOOSE FROM THESE ITEMS

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but including rowlocks and oars in kit form

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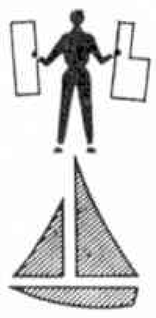
B-KIT (with sails)



including sail numbers, battens, lacing, rowlocks and oars in kit form

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CREDIT PRICE **£66 0 0**

Down payment of £15 and 12 monthly instalments of £4. 5. 0.

Prices include delivery in U.K.

C-FINISHED DINGHY (unpainted)

but complete with sails, sail numbers, battens, lacing, oars & rowlocks.

Prices ex-works

CASH PRICE **£80 14 0**

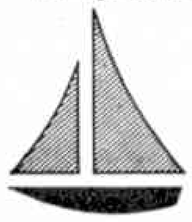
CREDIT PRICE **£84 0 0**

Down payment of £15 and 12 monthly instalments of £5. 15. 0.

When your dinghy is ready you can collect it from the factory in Leicester or it can be delivered at an extra charge of approximately 1/- per mile. This will be invoiced separately by the manufacturer.

D-FINISHED DINGHY (painted)

in colour of my choice and varnished inside complete with sails, sail numbers, battens, lacing, oars & rowlocks.



Prices ex-works

CASH PRICE **£95 11 0**

CREDIT PRICE **£99 12 0**

Down payment of £15 and 12 monthly instalments of £7. 1. 0.

When your dinghy is ready you can collect it from the factory in Leicester or it can be delivered at an extra charge of approximately 1/- per mile. This will be invoiced separately by the manufacturer.

EASY

To sail Jack Holt designed the Mirror for cruising *and* racing. With the mast in its forward position and only the mainsail up, a beginner can sail her, with ease. But with the mast in the aft position and both sails up, she's a snub-nosed rascal that'll entertain the most experienced yachtsmen!

To carry The Mirror is a true car-top dinghy . . . and the smallest car will do. She's only 98 lbs ready for rigging! One strong man can slide the 10′ 10″ x 4′ 7″ hull onto a roof rack.

To build Co-designer TV handyman Barry Bucknell adapted the "stitch-and-glue" method. You hold the pre-cut ply panels together with wire "stitches", then cover the joint on both sides with glass fibre tape and resin. That's all. It only takes about a hundred man hours to complete a Mirror.

To buy A Mirror kit costs £63.11s or £15 down and £4.5s a month for a year. That's just £66 credit. And that includes two red Terylene sails, oars, fittings, rigging—everything but the paint. Or you can buy her ready for the water at £95.11s cash, £99.12s credit.

Four reasons why the Mirror Class is the fastest growing class in the world. Send for more.

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mailbag

Anything interesting . . . write about it to the editor

■ *ONLY ONE?*—One Sunday last summer I visited the historic town of Wilton, near Salisbury. Wilton has a fine parish church, built in Lombardic style in 1844. My photograph, however, shows the old church of SS Mary and Nicholas that stands in the market place. At one time the perpendicular nave was in ruins, but it was repaired and the churchyard converted into a garden in 1939. The chancel was restored by Robert Bingham, American Ambassador in Britain from 1933 to 1937, in memory of his ancestor, Bishop Robert Bingham, who was consecrated here in 1229. As far as I know this is the only instance of an English church being restored by an American citizen. It would be interesting to know if any reader knows of another.

J. A. Fleming, London, N.W.3.

■ *RAF MEMORIES*—My father was glancing through the February MM when he saw the Airfix Halifax bomber advertised. He was thrilled to see the squadron letters NP, which belonged to 158 Squadron who were stationed at Lissett, Driffield, Yorkshire. My father actually worked on NP-B for two-and-a-half years. This stood on the next concrete pan to NP-C (illustrated in the Airfix advertisement). There were, of course, many Halifax bombers with the letters NP-C, and many fine aircrews were lost flying them. We have a similar model, which my father made from a builders' plank in 1944.

C. Trull, Broadstairs, Kent.

■ *BUILT IN AUSTRIA*—I was interested to see the letter of I. Murray of Enfield in the February MM. When I was in Austria last year, I too, was impressed by the beautiful picture decorations on the buildings. I also noticed that idea had been extended to the ventilation holes of the barns and other farm buildings in the Tyrol. Since timber is very plentiful in these parts, many of the buildings are wooden, and the use of the simple cut-out shapes is quite common. Another feature of these wooden buildings is the use of massive dovetail joints at corners. These are as much as 6 in across the pins. In the older buildings at least they appear to have been assembled dry.

M. J. Hammersley, Sherwood, Nottingham.

■ *CHEESE LABELS*—As a keen collector of cheese box labels I would like to know whether any organisation exists to assist people who are interested in this fascinating hobby. My own collection is a modest one at the moment, but I already have a number of very beautiful specimens, particularly from boxes of Swiss processed cheese. The Swiss seem to specialise in producing colourful labels, and some I have are real works of art in miniature. I would greatly appreciate your assistance in putting me in touch with other readers who share my enthusiasm.

Michael Brown, Manchester.

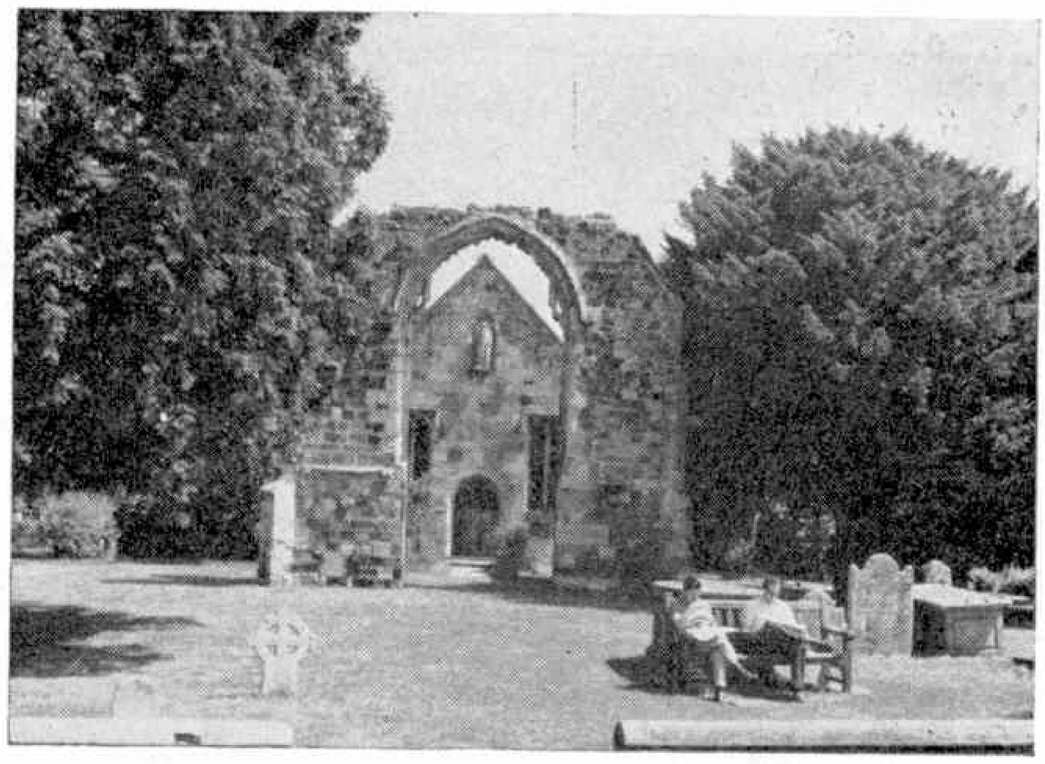
If any readers can help Mr. Brown, we would be pleased to receive their letters and forward them to him.—Editor.

■ *MORE FOR CHESS?*—In the March Mailbag, Michael Laslett suggested having an article on chess. I heartily agree with him, and I would also like to see a page of jokes. (Why not some of our own?).

Graham Case, Wickham, Hampshire.

Many readers have asked for regular articles on chess. We can promise them that there will soon be such a feature in your magazine. As for the jokes—we hope you like the ones on p.27 of this issue.—Editor.

Church of SS Mary and Nicholas, Wilton



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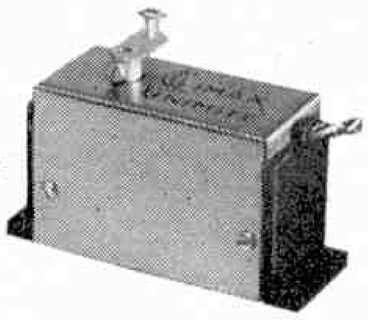

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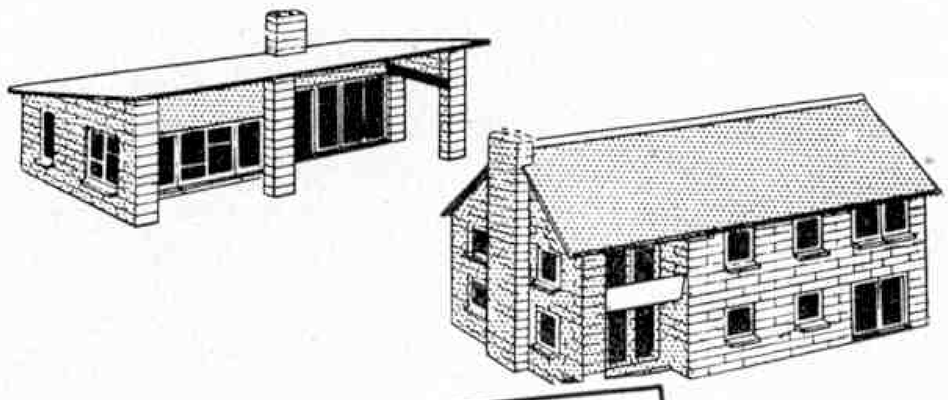

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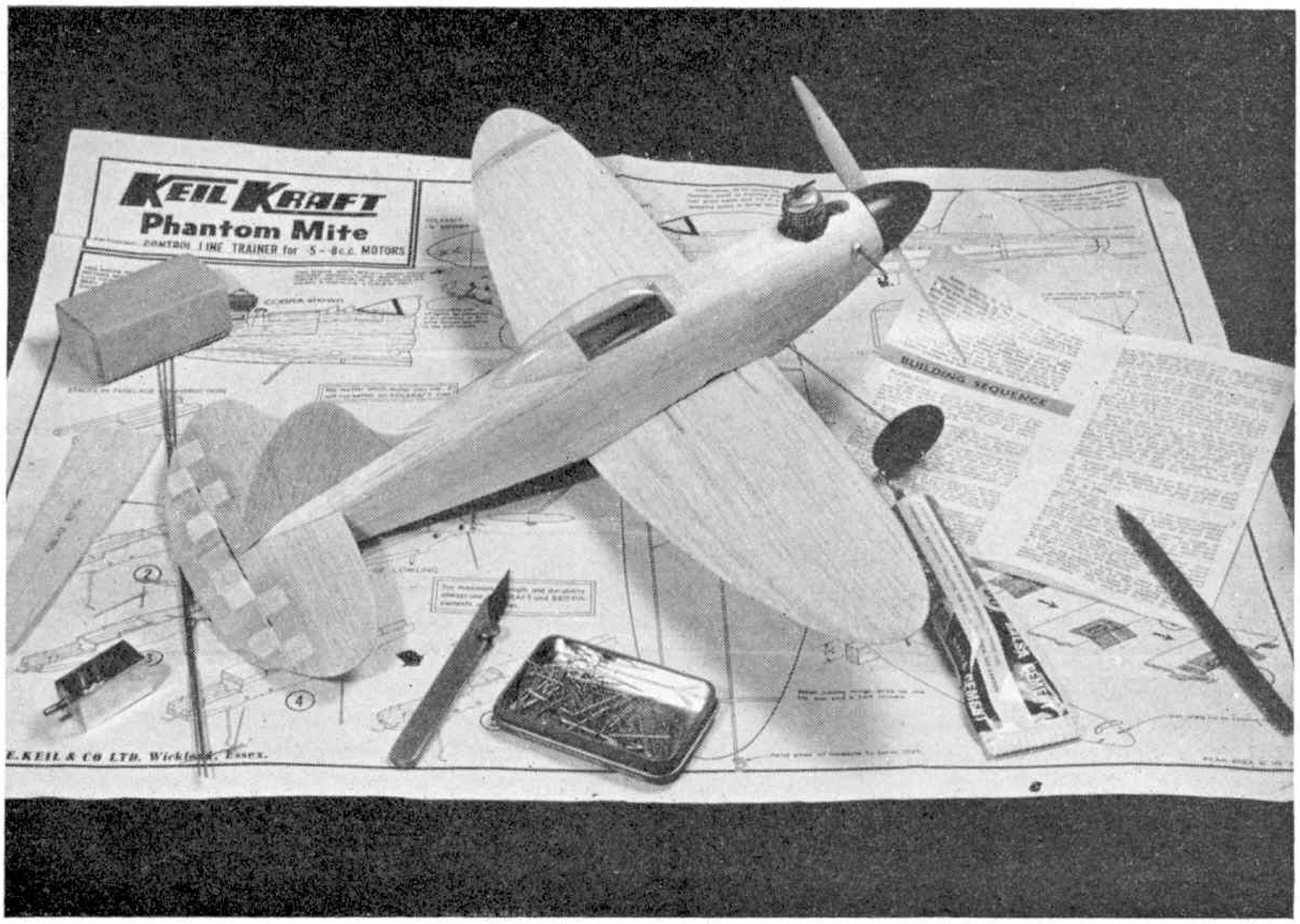

Getting started — in control line aeromodelling

first of a new series by **John Atkinson**

THE BUILDING and flying of model aircraft is a truly international hobby. Every year contests are held for all types of models, where teams from as far afield as Japan, U.S.A. and all the European countries compete for top honours. No other constructional hobby provides such facilities for meeting fellow enthusiasts from overseas. Apart from the international side, there are, throughout the year, model flying meetings held most weekends in various parts of G.B. The high spot of the home modellers year is the British Nationals where hundreds of modellers from all over the British Isles gather for their annual two day beanfeast! It is usually held over Whitsuntide and many model fliers camp out on the airfield for the whole period, enjoying the flying from dawn to dusk.

All this may seem a far cry from the little gathering of enthusiasts flying their models on the local common at the weekend; remember though, that all the top experts started in this way and no matter how simple the model it will give you a tremendous amount of pleasure.

So you have decided to build a model aeroplane, now comes the difficult bit—how do you choose the most suitable kit from the hundreds available? There are two basic types of model—control line and free flight. Free

Above: The Keil Kraft Phantom Mite, almost complete showing some of the tools used in its construction. Sandpaper block, balsa knife, pins. A 7½ cc team race fuel tank is seen behind the tailplane. **Price 15s. 6d.**

flying models may be gliders, or rubber driven or powered by miniature engines. Control line models on the other hand are all engine powered and are by far the most popular single type in this country. This is probably due to the fact that, unlike free flight models, they can be flown in very restricted areas. A control line model flies round the 'pilot', being attached to a handle (held by the pilot), by two thin steel wires. By moving the handle, the pilot can control the model making it climb and dive at will. 'Stunt' and 'Combat' models will also loop and perform many other more complex manoeuvres.

In this article I want to take a look at a selection of control line kits suitable for the newcomer to the hobby. The kits I have chosen are of all-sheet construction, that is, they have no built-up rib and spar wings requiring tissue covering—a process which most beginners find quite difficult.

Very few tools are required for the construction of these models. A box of steel pins (preferably glass headed ones) a balsa knife, a pair of pliers, a tube of balsa cement, and two or three grades of garnet paper (better than sandpaper) are the basic needs.

Before choosing your model, select an engine, since the size of this unit will largely determine the size of kit you buy or at least narrow down the choice.

There are two types of model—glow plug and diesel. The glow plug engine requires a battery to heat the plug element in the cylinder head in order to start the motor. Once running, the battery is disconnected, when the engine will continue to run until its fuel is exhausted. The diesel on the other hand requires no battery but, particularly in the smaller sizes, is sometimes trickier for a beginner to start.

Up to about 1 cc capacity most glow plug engines are easier to operate than diesels (there are a few exceptions). Over 1 cc and up to 2.5 cc there is little to choose between them but I have a personal preference for diesels since they require no starting batteries and have no plugs to burn out. As beginners we will have no need to consider anything larger than 2.5 cc, in fact, none of the kits which I am including here require engines over 1.5 cc.

A nice size to start with is .8 cc and there are lots of kits designed for such engines, sometimes referred to as .049 engines which is their equivalent capacity in cubic inches (ci)

One of the simplest kits for this size of engine is the **Frog** *Tyro*. It is specifically designed for the Frog 80 diesel or .049 glow engine and is very easy to build. The die cutting of the various parts is quite excellent and these parts are also colour printed, thus avoiding the need for any additional decoration. Even a sheet of sandpaper is included in the kit. Span is 17 in and the kit costs 7s 11d. It is worth noting that in addition to the basic kit you will have to buy a small fuel tank—about 3s.

Also for .8 cc engines—specifically the **Quickstart** *Merlin* and *Bantam*, is the **Gremlin** de Havilland *Chipmunk*. Being a scale model this is a more complicated subject but still within the capability of the average beginner. Although largely prefabricated, a piercing saw or fretsaw will be required to cut out one or two of the printed wood parts in this kit. An excellent transfer sheet is included together with first class step-by-step assembly drawings, incidentally, a finished metal fuel tank is also included with the *Chipmunk* which costs 19s 11d.

Perhaps the most extensively prefabricated balsa kits are those in the **Veron** range. Their *Colt* trainer of 19 in span presents just about the simplest assembly job it is possible to imagine. The fuselage is carved to shape and the wing is not only cut to outline but is finished to a true aerofoil section requiring only the tips to be sanded to shape. It is quite possible to build the model without using a knife at all—only sandpapering being required. For all this saving of labour one expects to pay a little more than for a more basic kit; it is, however, an excellent subject to start with since it is difficult to see how one could fail to make a success of its straight-forward construction. The *Colt* likes a slightly larger engine of between 1 cc and 1.5 cc although it *can* be flown on motors as small as .75 cc. It costs 28s 11d.

One of the nicest looking small C/L kits is the **Keil Kraft** *Phantom Mite* of 16 in wing-span designed for .5 cc to .8 cc engines. As you can see in the photograph of our unpainted *Mite*, it is a very shapely craft, with elliptical wings, streamlined cockpit canopy and propeller spinner.

Despite its streamlined shape and the number of parts

Opposite page, left: The Frog Tyro is not only die-cut but also colour printed! It makes up into an attractive profile model suitable for the popular .8 cc engines. **Price 7s. 11d.**

Opposite right: The Gremlin Chipmunk kit includes a fuel tank and comprehensive transfer sheet. Some of the parts do, however, need cutting out with a fretsaw or piercing saw. **Price 19s. 11d.**

Right: The Jasco Trojan is a simple 'profile' model of tough construction and very basic design. **Price 10s. 9d.**

that go into its construction, it is not at all difficult to build. All pieces are die cut or sawn to outline shape, but a minimum of carving being necessary to give the final rounded shapes. It would almost be possible to do all the required shaping with coarse garnet paper, finishing off with a finer grade to obtain a smooth finish. Many of the engines suitable for the *Phantom Mite* have their own fuel tanks supplied as part of the engine; however, these will provide only a limited duration. It is better to buy a small control line tank and install it as shown on the plan. A $1\frac{1}{4}$ in spinner (not included in the kit) is not an essential part of the model but immeasurably improves its appearance and is worth the extra 2s $7\frac{1}{2}$d on top of the basic price of 15s 6d.

The **Jasco** *Trojan* (picture 5) a 'profile' (flat fuselage) model of very simple construction. Again the parts are cut to correct outline but require shaping to section. This is an extremely rugged model which will take a lot of knocks, uses engines of between .5 cc and 1.5 cc and costs only 10s 9d.

In addition to the basic kit you will again need a fuel tank which will cost you a further 3s or so.

These are only a few of the wide variety of beginners control line models currently available. Most manufacturers produce both profile and 'full fuselage' models and your final choice is entirely a matter of personal preference. The kits mentioned in this article, however, have been selected because of their sound design and uncomplicated construction. Any one of them can be tackled by a novice with complete confidence.

Next month I am going to take a look at some of the new plastic flying model kits now coming into the shops. These are really exciting and herald an entirely new form of model construction, employing some revolutionary building techniques.

I shall also try to give you some helpful hints on how to fly your control line model, and take a look at the preparation of the model for its first outing and in addition, examine some of the latest developments in the new field of plastic flying models.

Just about the ultimate in balsa pre-fabrication, the Veron Colt, is very easy to build and performs well with a slightly larger engine of between 1 cc and 1.5 c.c. **Price £1 8s. 11d.**

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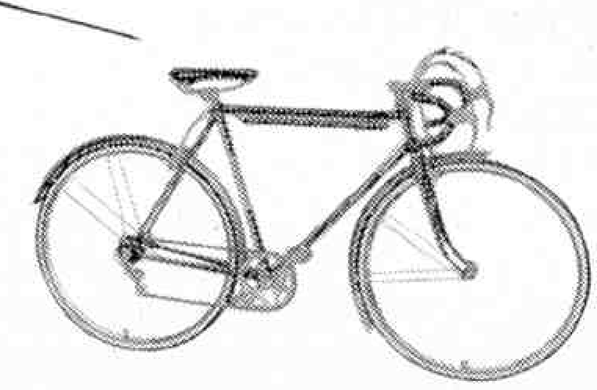

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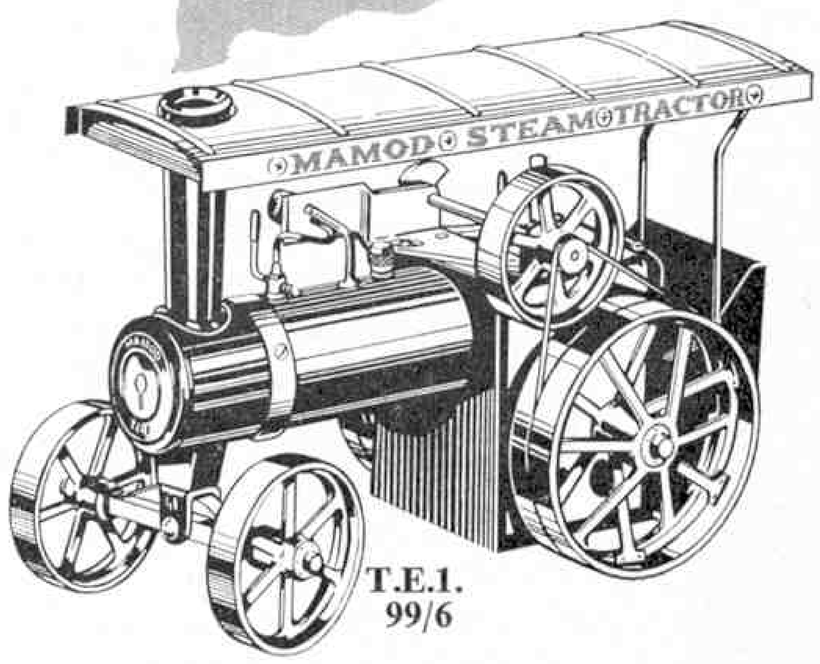

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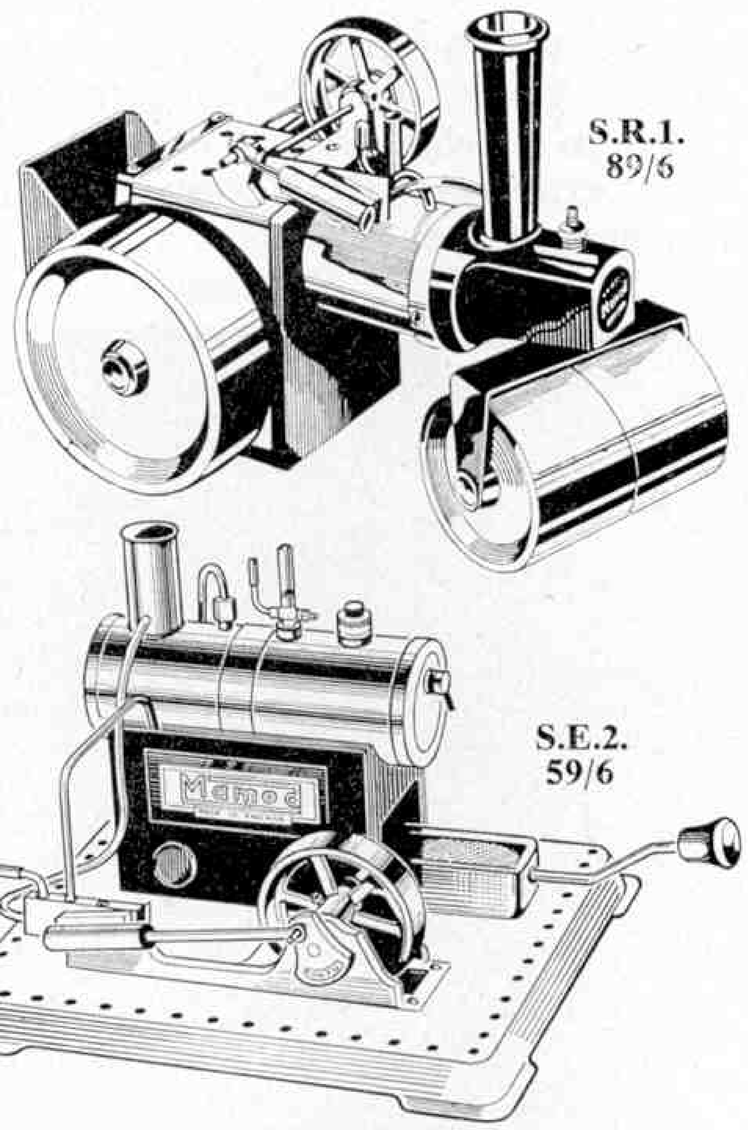

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Light and movement

Boxing cleverly - 2

R.H. Mason, F.I.B.P., F.R.P.S., the Editor of Amateur Photographer, *continues his series about how to take prizewinning pictures with a simple box camera.*

I HOPE you remember those four basic rules of good photography that I gave you last month. Without those, you will get nowhere, so briefly, here they are again:

Make sure to estimate your exposure correctly.
See that you have the right lighting conditions.
Watch for movement.
Consider your subject and general composition.

Now, about estimating your exposure. I did say that you could safely follow the exposure guide provided with every roll of film. Alternatively, you can work from one of the tables obtainable for a few shillings from your dealer. All these guides are prepared for average conditions, and for when the sun is directly on the subject. However, more dramatic pictures may be obtained with the sun behind or at the side of your subject, and in these cases double your exposure by using the next largest stop, or a slower shutter speed.

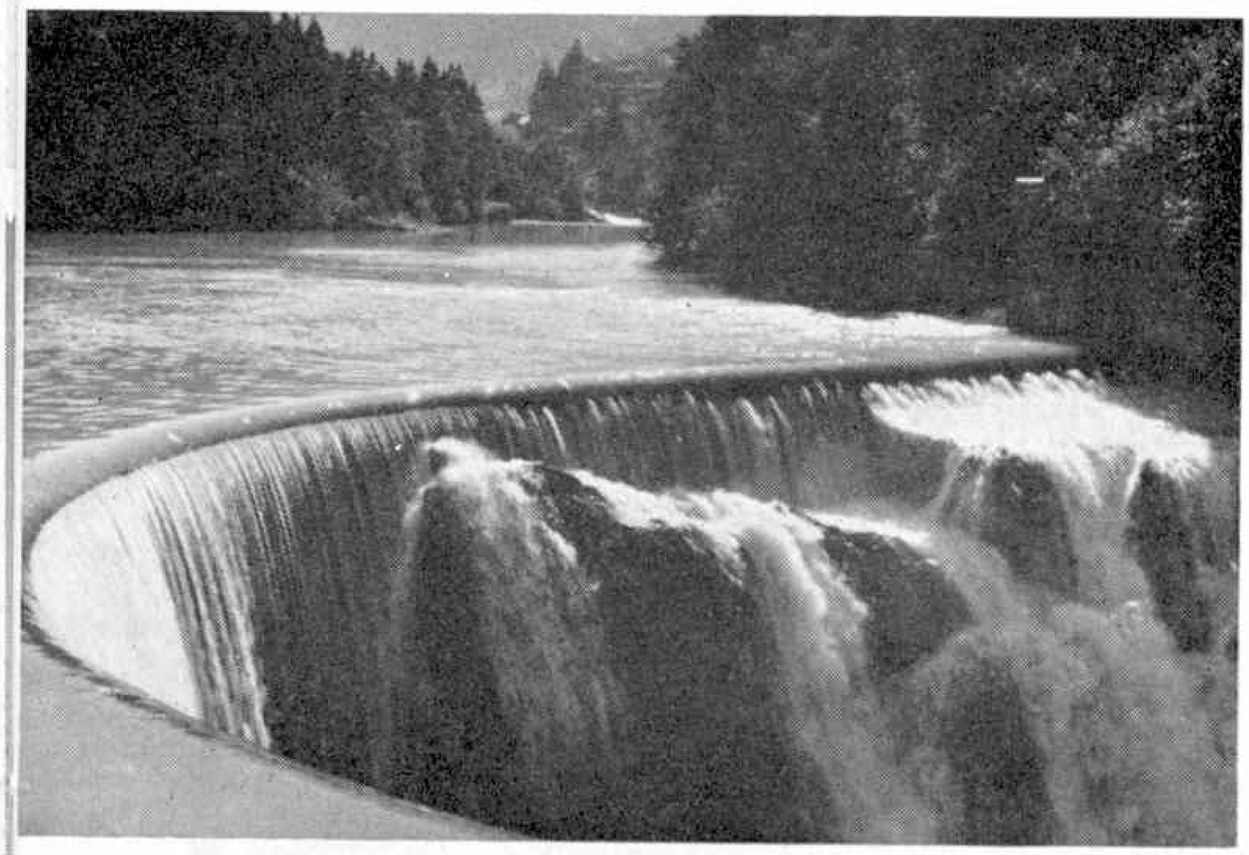
Another time when you should double your exposure is when your subject is very dark—especially if you are working close up.

On the other hand, you should halve normal exposure for very bright subjects—say, landscape or seascape with lots of bright sky. Remember, too, that sand and snow reflect light, so either might provide conditions in which to halve your normal exposure.

If the sun is very bright and behind your subject, there will probably be far too much contrast, and it will be necessary to throw some light into the shadows in order to reduce the contrast and get more detail. Of course, professionals use flash for this purpose, but there is no need to go running off for expensive equipment. Often, a sheet of white paper can be placed to reflect the sun into the shadows. Perhaps you can place your subject next to a white wall which will act as a reflector.

Still, take my advice, and usually try and take your pictures in the morning or late in the afternoon, when the sun is not too strong.

Top: Taking pictures 'against the light' gives more sparkle.
Below: Weak sunlight or cloudy conditions make it easier to keep detail in the shadows.



The right shutter speed

If a man walks from right to left across your field of view, you would need a very fast shutter speed in order to 'freeze' him. The faster the subject, the shorter the shutter speed you should use, so if your camera has only one or two speeds, you must choose a viewpoint as near as possible to the line of action. If someone is walking straight towards you, a shutter speed of 1/50 second or less will stop his movement. Of course, some subjects move much faster than a walking man. A train travelling at 50 mph would travel across your field of view in 1/60 second, so it would be better for you to get on a bridge and take the picture with the train coming towards you head-on.

Press cameramen use a technique called 'panning', which can also be used with a simple camera. Say you want to photograph a racing car at speed; you swing the camera with the car—following its movement—while pressing the shutter release. The background will be blurred while the subject is sharp. This increases the drama of your picture. Panning does take practise, however, so you must be prepared to waste a few films in the process. Still, it is worth it. People in action can be photographed with the simplest of cameras. Maybe you are at a football match. You can usually find a moment when the action has almost stopped. When a player changes direction there is a fraction of a second when he is almost completely motionless. Catch him then. Press the lever of your shutter release slowly and steadily until it is on the point of tripping the shutter. When the subject is on the point of turning, press it the rest of the way. This is something you can practice without a film in the camera.

Next month I will write about that other golden rule—good composition.

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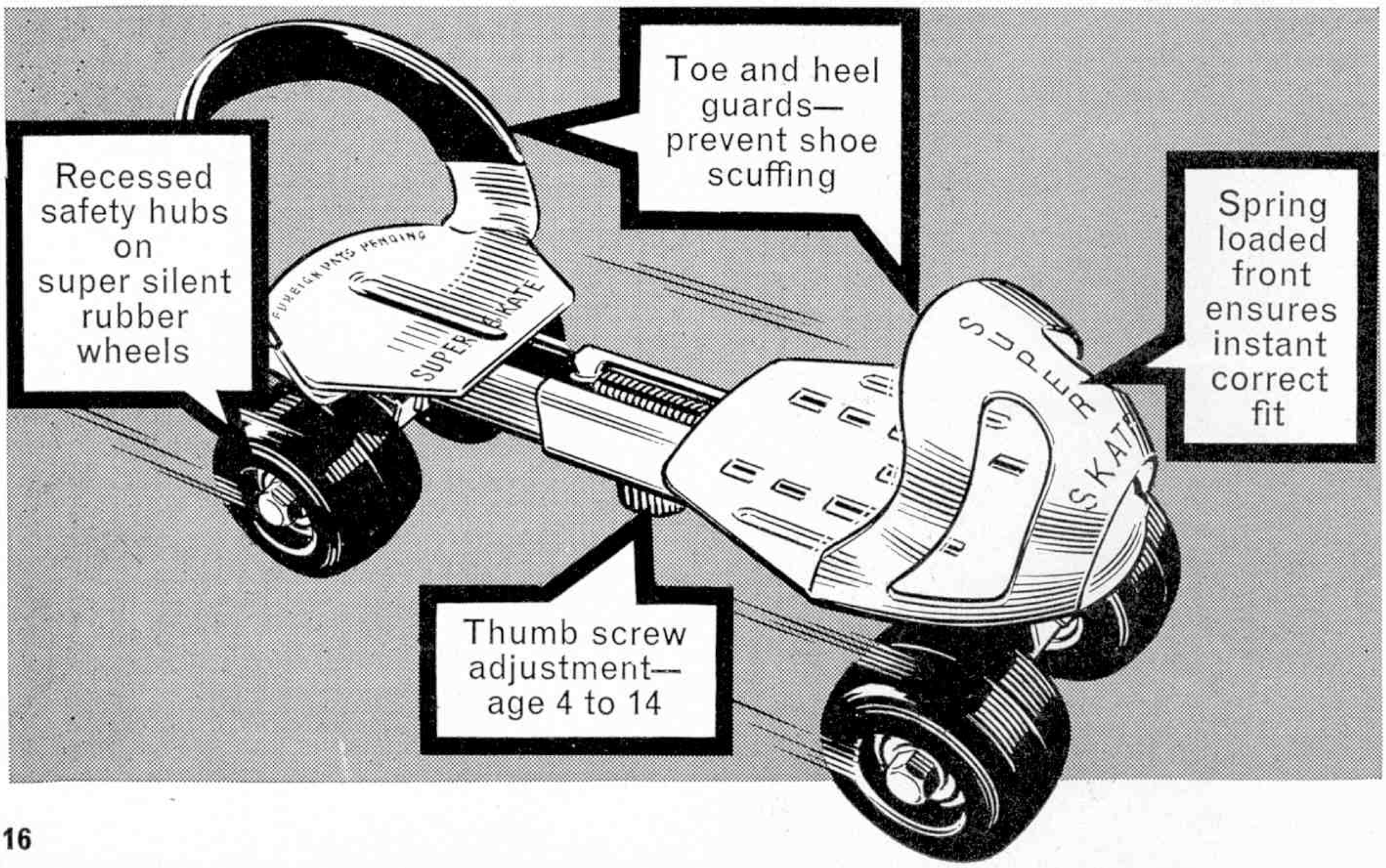
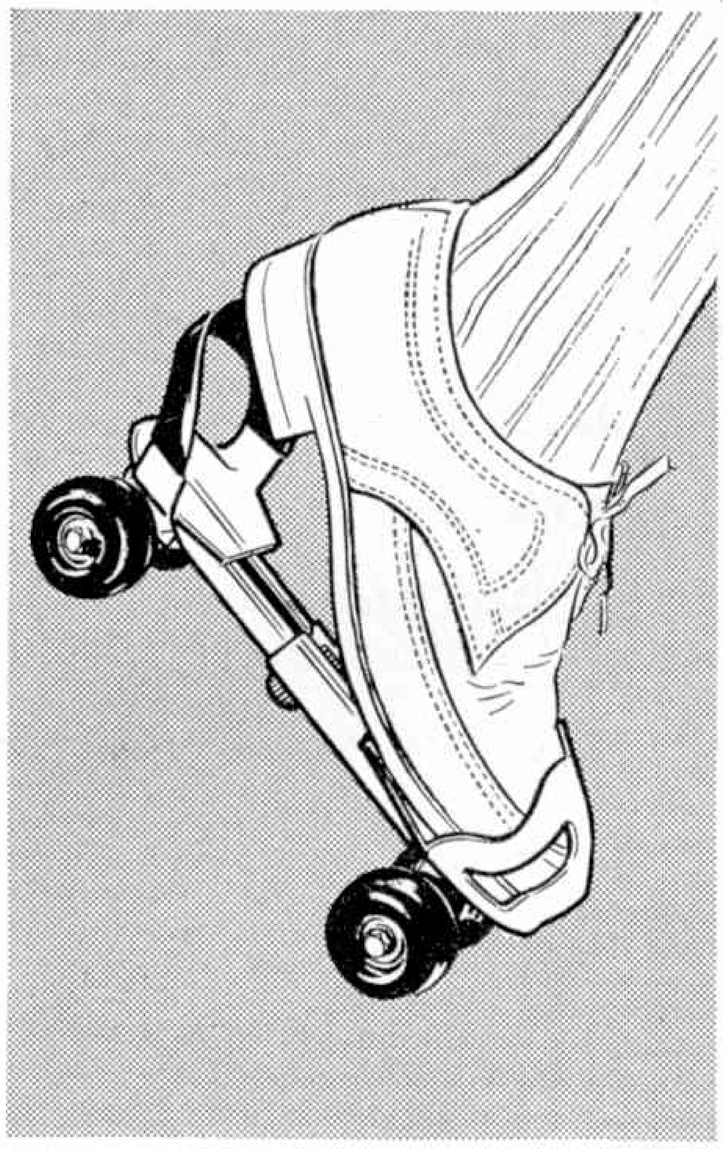
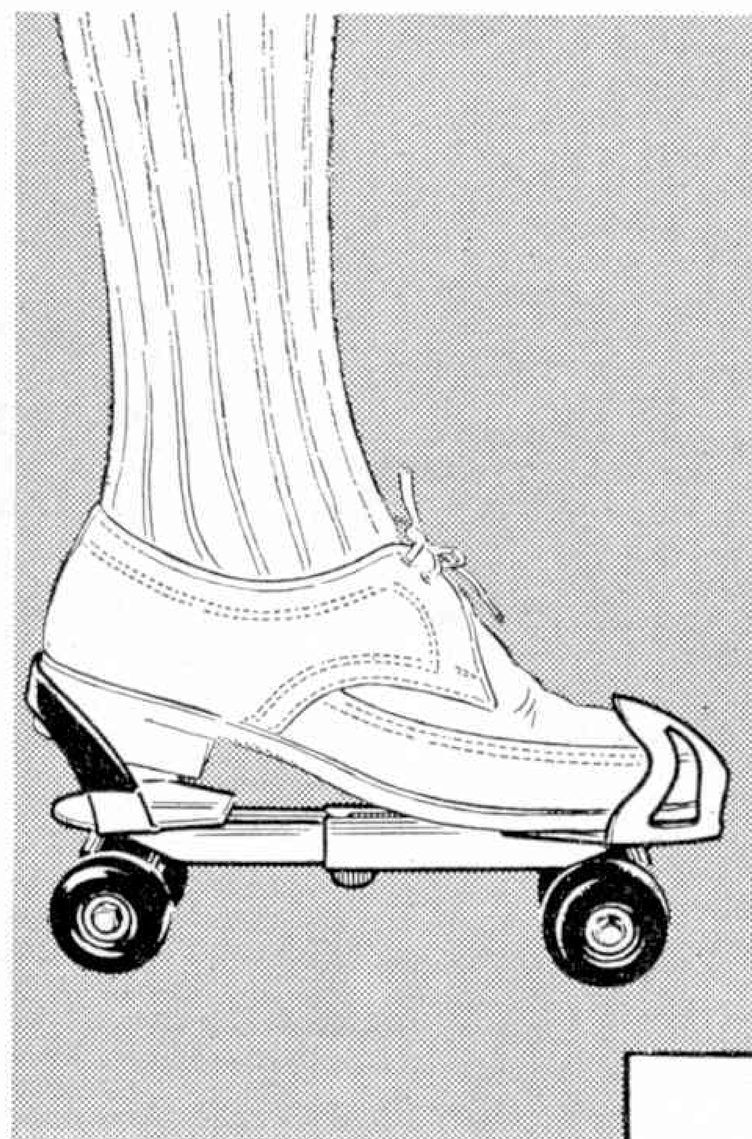
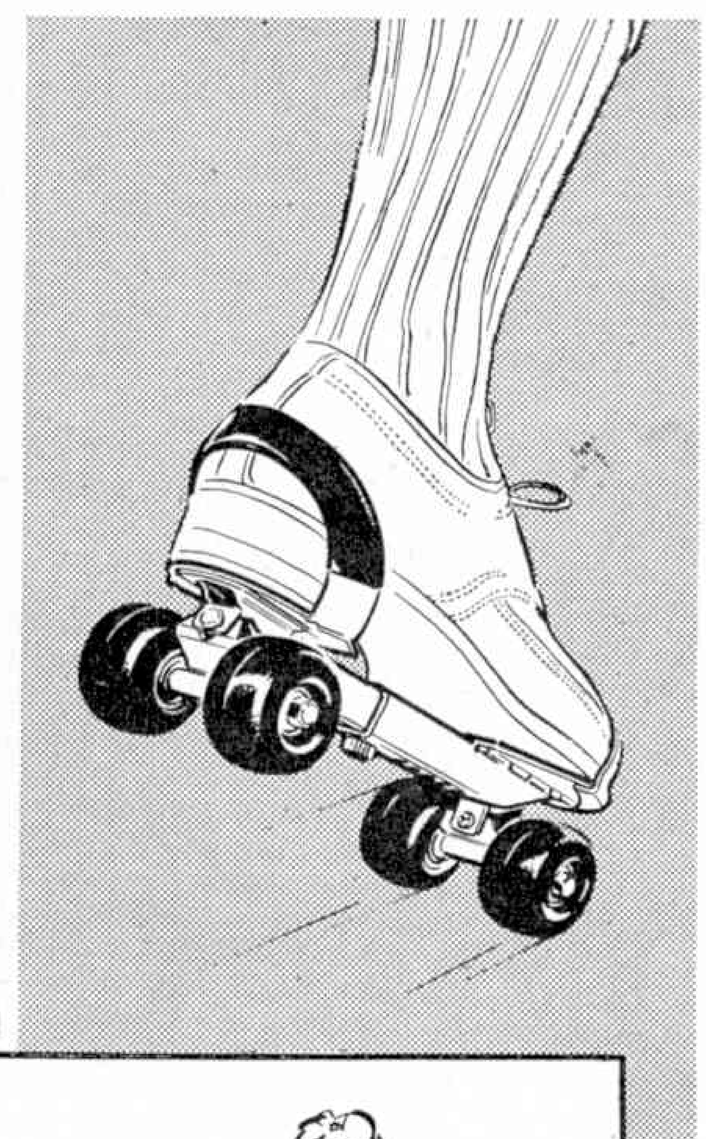


slip on...push...click, and you're away







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On the Move

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The Grand Prix

by **Jerry Ames**

ON THE starting grid drivers slowly clamber aboard their cars. Around the green machines of Britain, red of Italy. silver of Germany and blue of France stands a small group of mechanics quietly fussing over their drivers, busy adjusting ear plugs, checking goggles and helmet straps.

Two minutes to go! Voices in the stands opposite fade out in an expectant hush. It's time to start engines, so each driver checks his gear lever in neutral and then one by one the highly tuned, noisy engines burst into life with an ear splitting crackle, a slight haze from blaring exhausts billows across the starting grid, as drivers run their engines up in a final check.

The One Minute signal board is held up, accompanied by a blast on the Klaxon; the starter mounts his rostrum, with national flag in hand. This is the moment when mechanics reluctantly leave their charges with a gentle tap on the shoulder, the grid is cleared of all but cars and drivers, waiting in mounting tension for the flag to drop. Each driver is now on his own, too bad if he stalls his engine, none may come to his aid until the pack departs. Thirty seconds to go! Gears engaged, engine revs increased, drivers 'feel' in the clutch slightly until it starts to bite, no easy manoeuvre in a racing car with its 'in-out' clutch; meanwhile preventing the car from creeping by holding it on the handbrake.

Ten seconds to go! The starter, eyes glued on his stop watch raises the flag in his right hand, engines rise in full crescendo to a steady roar until the very ground beneath the wheels trembles and vibrates. As the last few seconds tick away, a car behind the front row gradually begins to creep forward; by accident, of course, the driver would tell you, as he 'struggles' to hold it on the handbrake, but like a disease that spreads, others strategically placed steal an inch or two here and there, they hope unnoticed by the officials.

Five seconds! Drivers whose eyes have been alternating between their rev counters and the starter are now fixed on the man with the flag, who ticks off the last five seconds with the fingers of his left hand.

Suddenly down comes the starter's flag; at the same moment in go the clutches and the whole, multi-coloured tightly packed mass of cars surges forward in a fierce wave of acceleration, amidst noise, smoke, flying stones, dust churned up by spinning wheels. Quickly the leading cars are battling wheel to wheel, as they dive for the first bend. The Grand Prix is on! It may be for two, three, four or five hundred miles, but for sheer pent-up excitement there is nothing to compare with the start of a Grand Prix. What is there about this race that competitors and spectators find so compelling. How did it all begin? What is there about the Grand Prix that is so different from other motor races?

Only one *grande epreuve*, or major Grand Prix is allocated to any country in one year. It is and always has been *the* race of the year, attracting the world's most skilled drivers and the most powerful cars. Nowadays these great proving races count towards the Drivers and Manufacturers World Championships, but this was not always so, in fact the Drivers World Championship as we know it today is a post-war innovation, first held in 1950. The great stylist driver, Guiseppe Farina was the first ever to be officially declared the World Champion.

The Grand Prix originated in France to permit an unlimited number of teams to compete against one another, as distinct from the previous series, the Gordon Bennett races, where only three cars representing each country were allowed to start. The very first Grand

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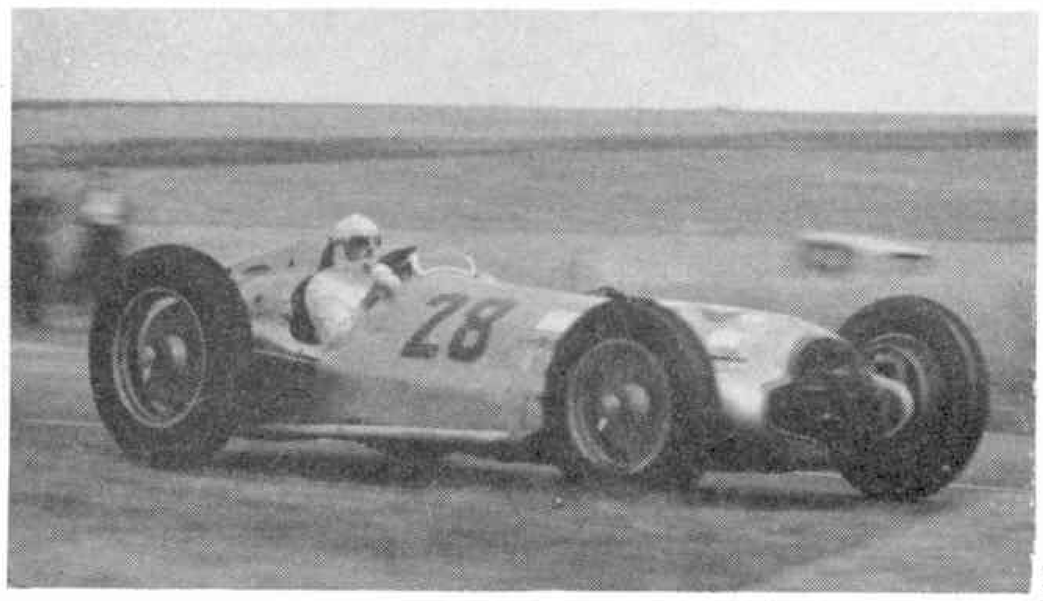

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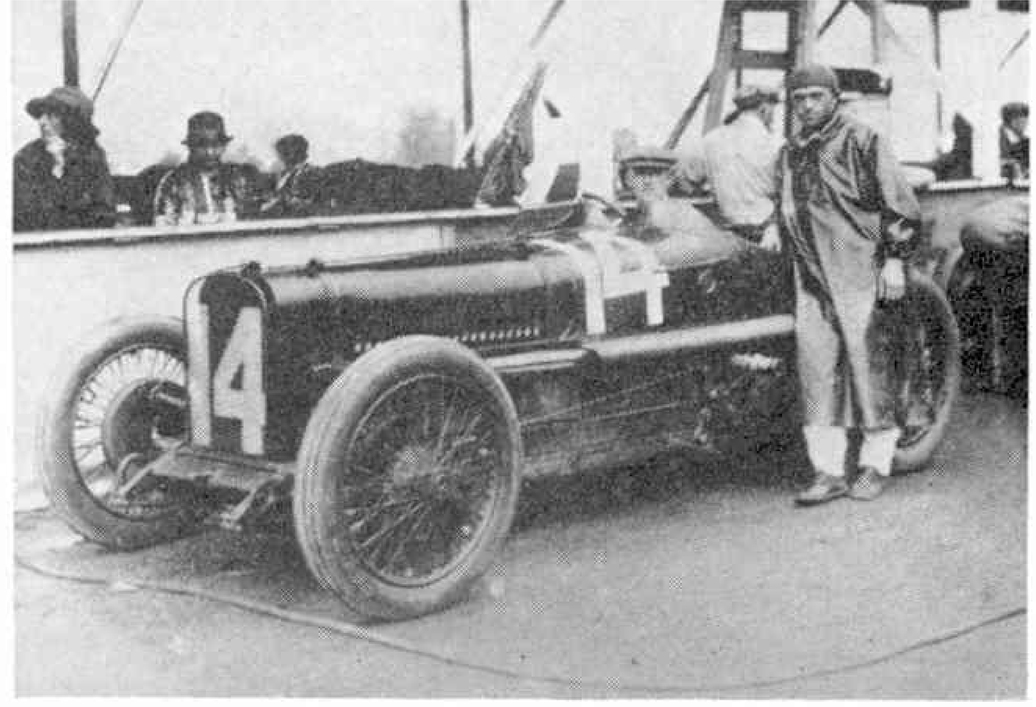

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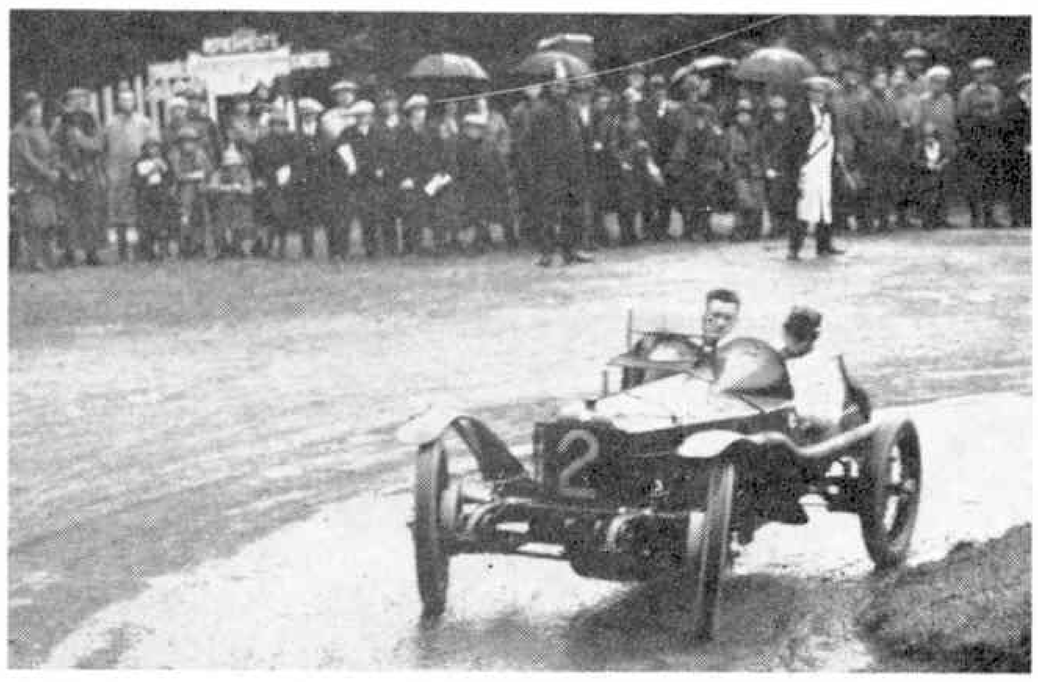

Prix under the new regulations was governed by weight, although the cars were monsters by comparison with modern machines; it was run on a closed circuit near Le Mans, in 1906 over a distance of 770 miles and required two days hard motoring. The winner Szisz, in a Renault averaged 63 mph.

The following year it was won by Fiat and in 1908 by Mercedes and as no French cars finished that year it was discontinued until 1912, when the winner was Georges Boillot in a French Peugeot. From that day the French Grand Prix, acclaimed the Blue Riband of motor racing, has been run every year, except when the two major wars intervened.

Since then, the winners having included the great racing names of the world, from Duesenberg, Sunbeam, Alfa Romeo, Delage, Bugatti, Auto-Union and Maserati to more familar post-war machines such as Ferrari, Mercedes, Cooper, Porsche, and Lotus.

Every few years the regulations have changed to encourage the development of engines, chassis, suspensions transmissions, fuels, oils, tyres and plugs. Gradually engine sizes have come down from 4½ litres in 1914 to 1½ litres supercharged in 1926: the most exciting Formula of all came during 1934 with a weight limit of 750 kilogrammes and maximum body width of 31 ins. but no limit on engine size; it introduced the most powerful road racing cars the world had ever seen, from Mercedes, Auto-Union and Alfa Romeo.

In the past the French Grand Prix has been run on a fuel consumption basis also as a sports car race. Neither forms were a conspicuous success, although they permitted French cars to win. Since the last war engine sizes have been as high as 4½ litres, but at the moment are down to 1½ litres unsupercharged, however that is again being changed in the future and I shall be discussing modern Formula One Grand Prix cars next month. Meanwhile if you want to see the latest Grand Prix cars in action, make a note to be at Silverstone on May 2nd and Brands Hatch on July 11th for the British Grand Prix, which this year is also given the title of Grand Prix of Europe.

Sting in it's tail

Not a Grand Prix car, but a new sports model with a real sting in its tail is the Austin Healey 3000 Mark III which I have been driving recently. Although size of the six cylinder engine remains as before at 2912 cc, power goes up to 148 bhp net. This increase is achieved by the use of different camshafts, and larger 2 in. S.U. carburettors. The manufacturers claim a top speed of 130 mph and acceleration figures in the region of 0 to 50 mph in 6½ seconds and 0 to 90 mph in 21½ secs, but during my short drive I had no time to calibrate the instruments and check these figures. However, I was most impressed by the acceleration to speeds of more than 90 mph along roads white with frost; I hope to have the new Big Healey on test over dry roads in a few weeks time and then I will really let you know what I think of it. This is a model that has done extremely well in rallies during the past two years.

1. Start of the 1958 British Grand Prix at Silverstone, won by Peter Collins in a Ferrari.

2. Hermann Lang's Mercedes in French Grand Prix, at Rheims in the 1930's.

3. H. O. D. Seagrave and his mechanic with the two litre Sunbeam at the 1924 Spanish Grand Prix.

4. Matthew C. Park driving the Vauxhall Grand Prix car in the Isle of Man TT Race, 1922.

by **John R. W. Taylor**

Pete Bowers and **the Fly Baby**

ONE OF THE latest crazes in America is to own and fly old aeroplanes. Pilots sort through junk yards, looking for the remains of World War I fighters or lightplanes of the nineteen-twenties. If they are lucky they rebuild the crumbling wrecks with the same loving care that people in Britain devote to veteran motor cars. If they cannot find a genuine 'oldie', they often build the whole aircraft from scratch, with the help of the original 40 or 50 year old design drawings.

A few weeks ago I met in London a young American named Peter Bowers who has become a leading expert on these vintage aeroplanes. He is an engineer with the Boeing Company, but the sort of aeroplanes in which he flies outside office hours are very different from the giant Boeing 707 jet-liner or B-52 Stratofortress bomber. For example, he thrilled the crowds at a U.S. Military airfield one day by dashing past (at about 35 mph!) in a full-size replica of Glenn Curtiss's stick-and-string pusher biplane of 1911. After landing, he stepped straight into the cockpit of a two-seat version of the F-104 Starfighter and made a second pass over the airfield at about 1,400 mph—more than twice the speed of sound.

Under construction at his home are replicas of the famous Fokker Triplane fighter of World War I and the Wright Model EX biplane of 1911 in which Calbraith Rodgers made the first flight across the American continent. But the aeroplane which has probably given Mr. Bowers most pleasure in the last few years is a tiny single-seat monoplane named the Fly Baby.

He designed and built it to compete in a contest organised by the Experimental Aircraft Association, to which most of America's amateur designer-pilots belong. The rules of the contest called for an easy-to-build, easy-to-fly lightplane, with folding wings so that it could be kept in a garage and towed behind a car. In exchange for a prize of $2,500, the winner was expected to publish plans of his aircraft in the Association's magazine, *Sport Aviation*, so that other amateurs could build and fly it.

Fly Baby was constructed in 720 working hours at a cost of £735 and flew for the first time on July 27, 1960. Unfortunately, only one other aeroplane was ready in time for the contest, so the organisers decided to postpone it for two years. In April 1962, shortly before the new date of the contest, a pilot who had borrowed the Fly Baby became lost in mountainous country in bad weather and crashed it. Undaunted, Mr. Bowers set to work to rebuild the little aeroplane, improving it in some details and fitting an 85 hp Continental C75 in place of the former 75 hp engine.

The wooden structure of the Fly Baby is so simple that he was able to finish the job in good time and won the competition. Since then in addition to publishing constructional drawings in *Sport Aviation*, he has sold many hundreds of sets of more detailed plans, and copies of his aeroplane are now being built all over the world.

In its standard form, the Fly Baby has a span of 28 ft, length of 18 ft 6 in and loaded weight of only 924 lb. Top speed is over 120 mph, range 300 miles at 105-110 mph, and it can land and take off in a mere 85 yards. Baggage is stowed in a neat under-fuselage 'tank' which is fitted with a handle so that it can be removed and carried like a suitcase.

Pilots who find an open cockpit too draughty can fit a transparent sliding hood, and many other detail changes will probably be made on future Fly Babies. Mr. Bowers has already tested the prototype as a seaplane and is working now on a set of interchangeable biplane wings, to satisfy those amateurs who consider monoplanes dull and uninteresting. In whatever form it is flown, there is no doubt that this little aeroplane will give its owners a great deal of fun and adventure. The fact that about 6,500 Fly Babies can be built for the cost of a single modern long-range jet airliner should put an end to the idea that private flying is only for the very rich.

Complete plans for building the Fly Baby are available from Mr. Peter Bowers, 13826 Des Moines Way South, Seattle 68, Washington, U.S.A., price $15.00 Details of the construction, performance, material costs and tooling requirements, plus a large photo of Fly Baby, cost $1.00.

Highland fling

Scotsmen all over the world celebrate January 25 as Burns Night, in memory of their great national poet. To help the festivities along, BOAC this year flew haggis and heather to many overseas Burns Clubs,

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Caledonian Societies and other Scottish clubs. They also operated a Burns Night Special across the Atlantic with a Scottish crew, the stewards dressed in kilts, the stewardesses wearing tartan sashes. Passengers were piped on board and special menus including haggis were offered to them in flight.

Jet-age beaver

Now under test in Canada is a new version of the de Havilland Beaver powered by a 578 hp Canadian Pratt & Whitney PT6-A6 turboprop. The switch to a more powerful but lighter turbine engine enables this sturdy little bush transport to carry up to ten people at an economical cruising speed of 146 mph STOL (short take-off and landing) performance is even better, and the Turbo-Beaver will get off the ground with a full load in only 500 ft. It can land in 360 ft.

In addition to normal passenger and freight carrying, the Turbo-Beaver can be used for crop-spraying and dusting, to dump water on forest fires, and as an ambulance with accommodation for two stretchers and four seated casualties. Its standard wheels can be replaced by floats, skis, amphibious gear or combined wheel-skis. For hunting and fishing trips a 14-ft canoe can be carried on the port float of the seaplane version.

de Havilland Aircraft of Canada are producing conversion kits that will enable any of the 1,500 Beavers in service throughout the world to be converted quickly into Turbo-Beavers.

Globe-trotting goblets

A Viennese glass manufacturer wanted to discover just how safe it would be to ship his delicate products by air. So he made up a package of glass wine goblets with stems no thicker than a straw and addressed it to himself. The package spent two days travelling 32,300 miles round the world on board a Boeing 707-320B cargoplane of Pan American and arrived back in Vienna in perfect shape.

Choppers to the rescue

The Royal Canadian Air Force has taken delivery of the first of six Boeing Vertol CH-113 helicopters which will be used for search and rescue and general duties on the west and east coasts and in central Canada. Speed is often vital in air ambulance missions, and the new aircraft are fitted with a large rear loading door through which stretchers can be moved quickly and easily. Their cruising speed of 150 mph is 50 per cent higher than that of helicopters previously in service.

1 Peter Bowers at the controls of his replica of the 1911 Curtiss 'Pusher' biplane.
2 1962 version of 'Fly Baby' with extended fuselage and 85 hp engine. Streamlined object under fuselage is not an auxiliary fuel tank. It is a removable cargo carrier with handle, legs, and hinged top that can be carried to the hotel like a small piece of hand luggage. The pilot is Peter Bowers.
3 'Fly Baby' with one wing extended and one folded. This is the original aircraft before the crash.
4 'Fly Baby' as a seaplane—again piloted by Peter Bowers.
5 De Havilland Canada Turbo-Beaver on its first flight on 30th December, 1963.

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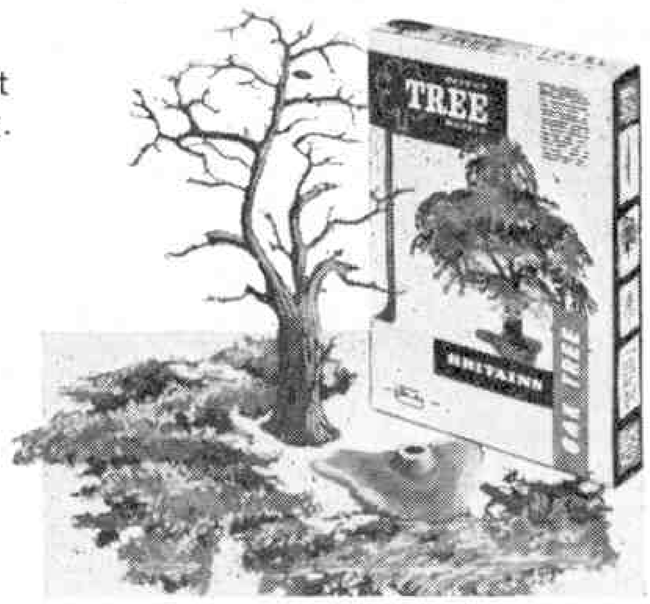

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CEDAR TREE
POPLAR TREE

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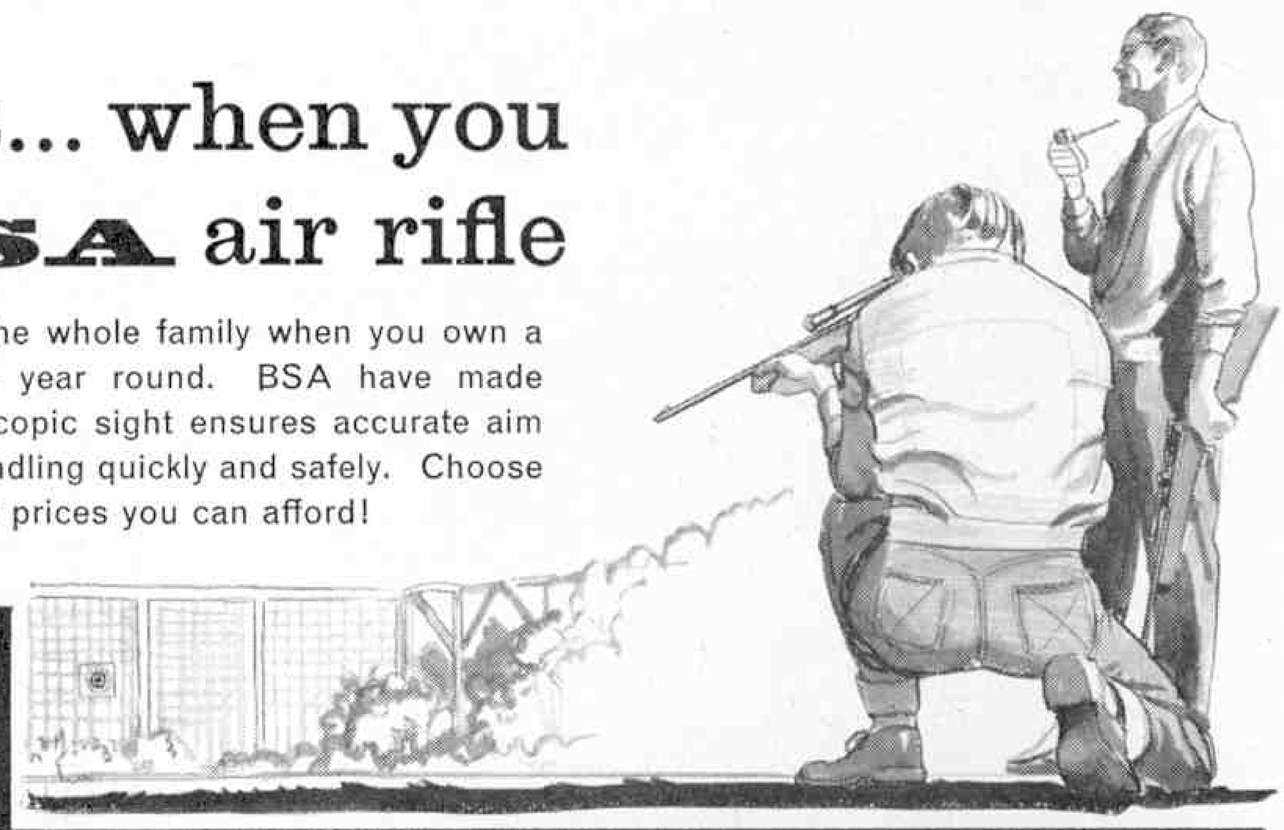
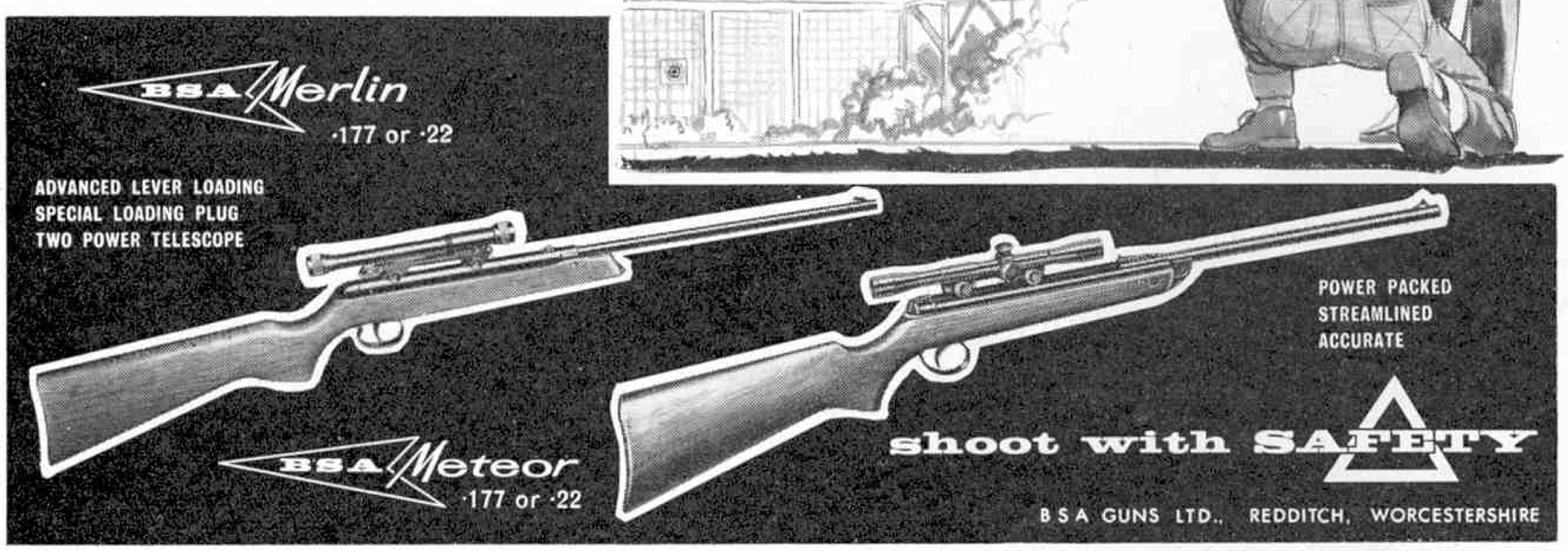




Fishing for trout

by **J. C. Crossman** of The Angling Times

I ONCE stood on a weir bridge spanning a small, clear stream and watched a man start fly fishing for trout. He was well equipped with tackle, but he lacked the most important quality of an angler—watercraft.

He wore thigh waders, and he began operations by blundering into the water with the eagerness of a thirsty bullock on a summer's day.

His chances of catching trout were nil. He did not know it, but he had already frightened every trout in a 50 yard stretch of the river. One after another panic-stricken fish had bolted downstream to the weir, where they lay, bellies pressed against the river bed, in a deep pool.

Some of these fish had seen the angler. Others had felt the 'shock waves' caused by his impetuous wading. When these fish had sped for safety the remaining trout had become alarmed too.

This incident illustrates the biggest problem of trout fishing: how to present the bait or fly to the fish without betraying your presence.

A point in the angler's favour is that trout lie facing the current. Because of this it is best to fish upstream whenever possible, casting from a position well behind the trout, and therefore out of its field of vision.

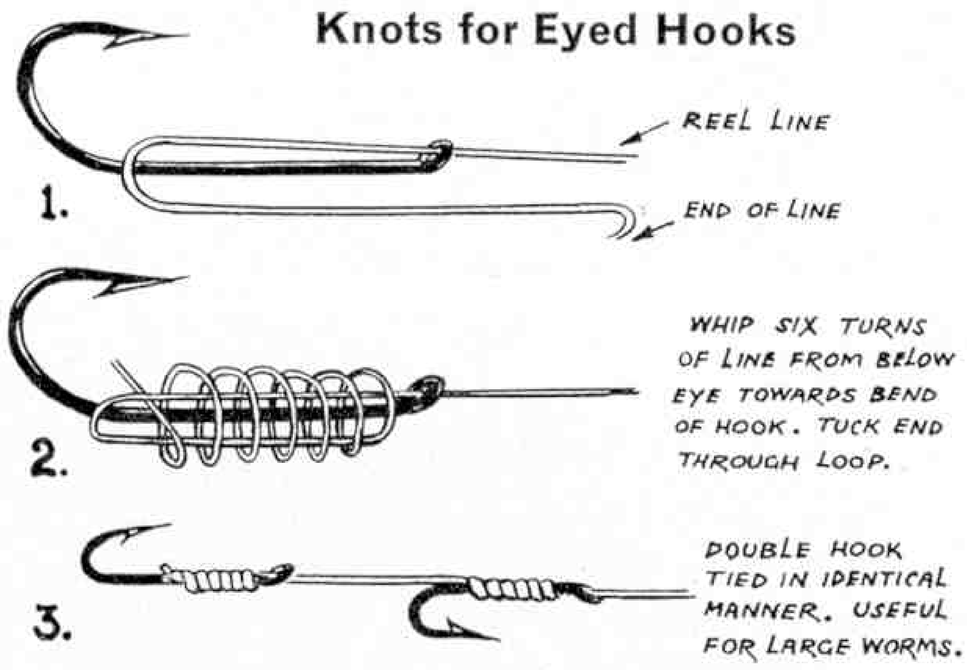
An angler who is prepared to stalk his fish is the most likely to succeed.

Fly fishing for trout is a specialised form of angling, technically within the grasp of any keen young angler, but often outside the range of his pocket.

Worm fishing needs only the simplest tackle. Any light rod or reel will serve, but the reel should hold at least 25 yards of nylon, monofilament line of 3 lb to 4 lb breaking strain. If a centre-pin reel is used it helps to have a long rod (10 ft or more). Many anglers today favour shorter rods used with fixed-spool reels.

Small red worms (found in rotting vegetation) and the yellow-striped brandling (dig for these in manure heaps) are excellent baits. Match the size of the hook to the size of the bait. For medium-sized worms a size 12 hook is about right. For large lobworms the tandem hook (see diagram) will help avoid missed bites.

In some streams trout are dour feeders, seemingly immune to all the angler's wiles. Here is the opportunity for the spinner. A useful lure is a small wooden plug which can be floated downstream under bushes. The plug has a lip so shaped that it makes the lure dive and wobble when retrieved. Its life-like action is often an irresistible attraction for trout.



Start exploring

by **Bill Oakley**

In the first of a new practical series of articles on cycling, Bill Oakley *begins to tell you about the things you'll need to know when you get that itch to roam.*

The best birthday present I ever had was a bicycle. It was secondhand, big and heavy, but it set me off exploring in all directions. Of course, I soon wanted a better bike, one on which I could sit and pedal comfortably without stretching my legs out straight at each revolution. You should be able to put a foot to the ground at, say, a halt sign, without shifting your position in the saddle.

Quick pedalling on a low gear is the secret of easy cycling, so practice pedalling with the balls of the feet on the pedals, lowering the heel as the pedal comes up, raising the heel as the pedal goes down. In this way you turn the pedals over top and bottom dead centre instead of just stamping on them. Do you have a single gear bike and would like to know just what gear that is? Working it out takes a bit of arithmetic, but here's how to do it. Divide the number of teeth on the chainwheel by the number on the rear sprocket. Then multiply the result by the wheel size—usually 26 or 27 in on a full-size machine.

A normal gear is usually about 65, and many experienced riders are satisfied with a single gear of that size.

However, in hilly country, and in flat, exposed parts where the winds blow strong, variable gears are an advantage. there are two main types of variable gears—hub and derailleur. It is on sporting machines that derailleur types—with maybe up to ten different gears—are most popular. A suitable range of gears for cycling in Britain is from about 40 to 80.

Young cyclists 'drum up' sheltered by a dry stone wall.

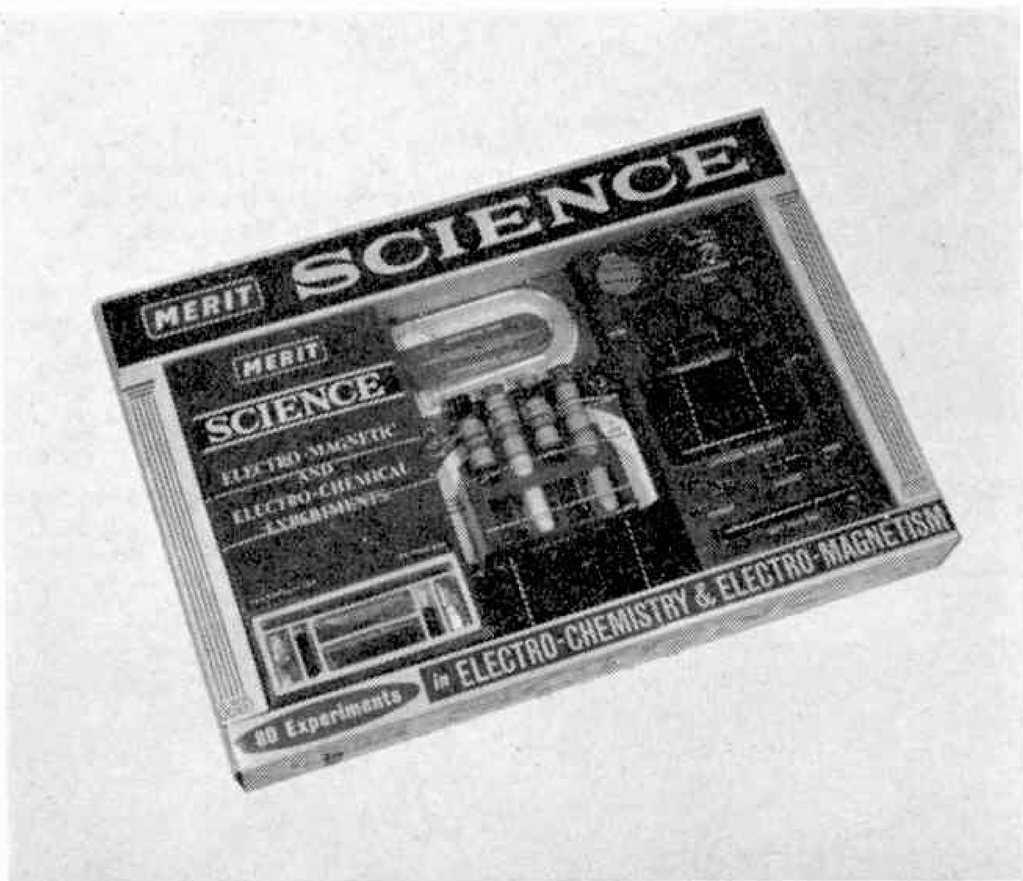
Right. I take it that your bike is the right size and that your gearing is fitted for the type of country you'll be travelling in. Get a map. Half-inch to the mile maps are about right, all the lanes and many of the bridle and footpaths are marked. They are much more fun (and safer) for cycling than main roads. The most popular maps for touring are Bartholomew's. They cost 3s each, and are contour-coloured, making it easy to see where the hills and valleys lie. Each sheet covers an area 60 by 40 miles and a complete list and index to the sheet numbers will be sent post free on request to John Bartholomew and Son, Duncan Street, Edinburgh 9.

Now get exploring. Next month I want to tell you about cleaning and lubrication, tyre care and adjustment. And there'll probably be enough room left for me to tell which tools are the absolute 'musts' for your saddlebag.

window SHOPPING

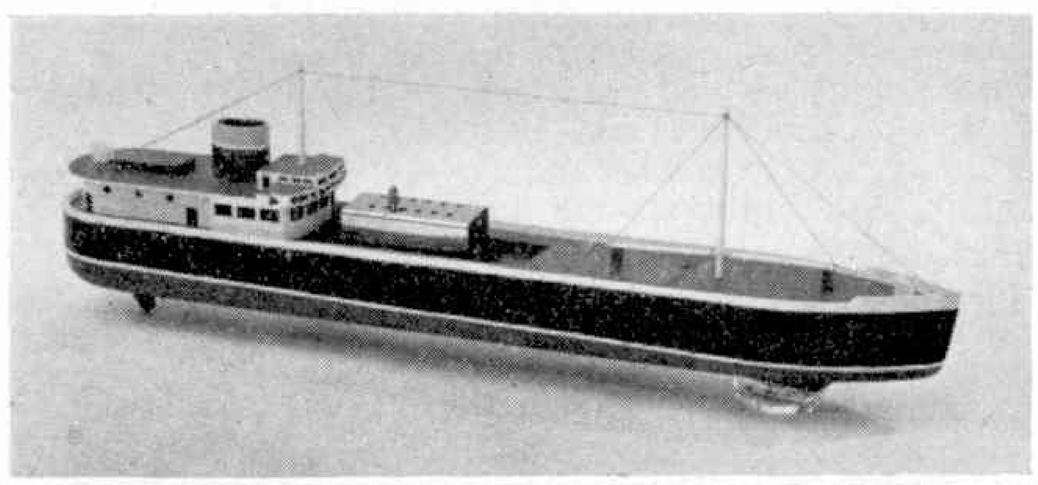
kits and models on the market

The aristocrat of the model roadway systems, the VIP Raceway, gives really exciting performance with a high standard of reliability. The cars, Formula 1 models, are strong, with rugged motors which give plenty of power for very low current consumption. The motors are air-cooled and will not overheat in normal use. True Ackerman steering is provided, so that the cars skid round corners just as on the real race track. It is possible to buy many VIP accessories, such as a grandstand, pits, chicane, automatic car-operated lap counter. Sports and saloon cars are also available. Recently introduced new control buttons give greater flexibility of control of speed. Crash barriers, made of resilient plastic, are provided with the basic kit, which comprises a complete figure '8' track with bridge, eight curved track units, four straight units, one arched unit, and a power connector unit. The track sections fit tight and ensure electrical continuity without loose joints. All VIP cars for use in Britain are fitted with TV suppression units. Maintenance is very simple and the notes on this subject in the VIP manual are particularly lucid and easily understood. The basic kit is priced at **£8 14s.**

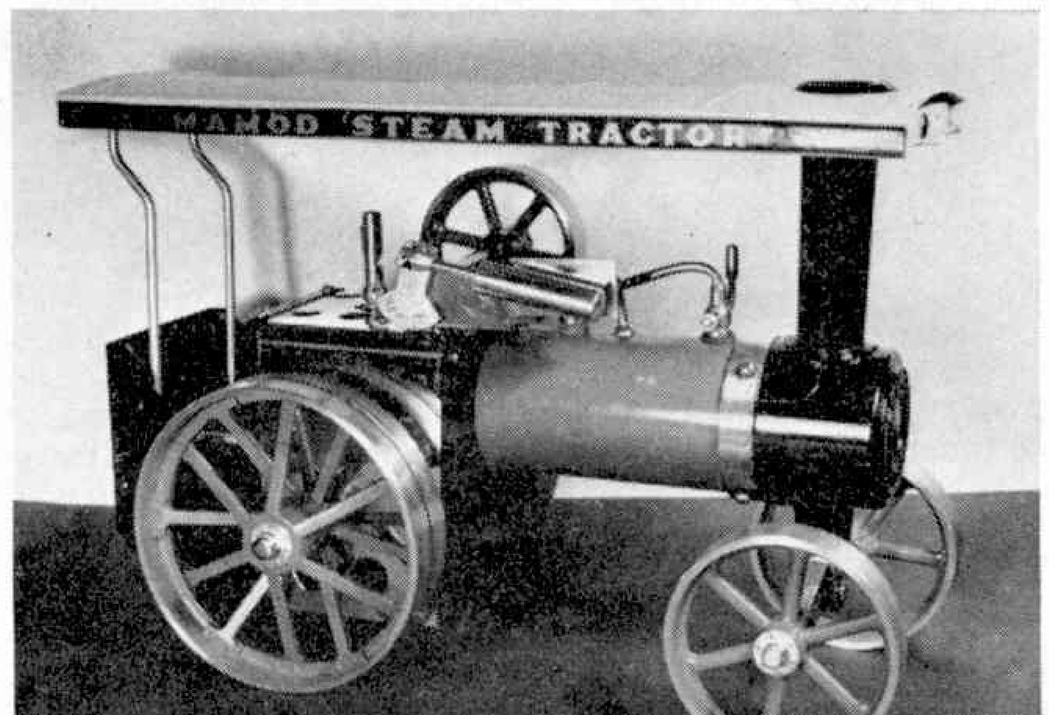


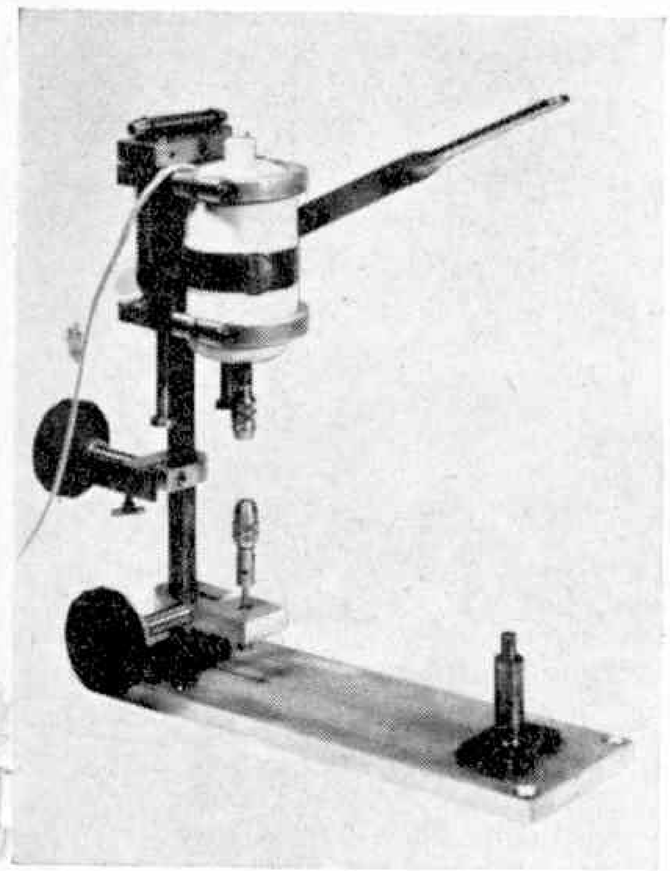
Grounding in the field of physics, particularly in electro-chemistry and electro-magnetism, is given by the experiments outlined in the handbook that accompanies the Merit Science Set. A number of the experiments are concerned with the original discoveries of Michael Faraday. These experiments are interesting in themselves besides laying a foundation on which a boy might build and understand many of the wonders of present day electrical science. There is also plenty of scope for devising experiments other than those described in the handbook. Price **£1 15s 11d.**

Measuring 36 in long and with a 6 in beam, the S.S. Activity by Hobbies Ltd, of Dereham, Norfolk, forms the basis for an excellent model which can be added to and elaborated as desired. The numerous fittings available can be bought quite cheaply, or alternatively the keen modeller might make them himself. She is designed to take a Mamod model steam marine engine but can be adapted for electrical power or diesel propulsion. The boat is easy to build and is of rigid construction. There is plenty of room inside the boat for radio control equipment. **Price £1 17s 6d**

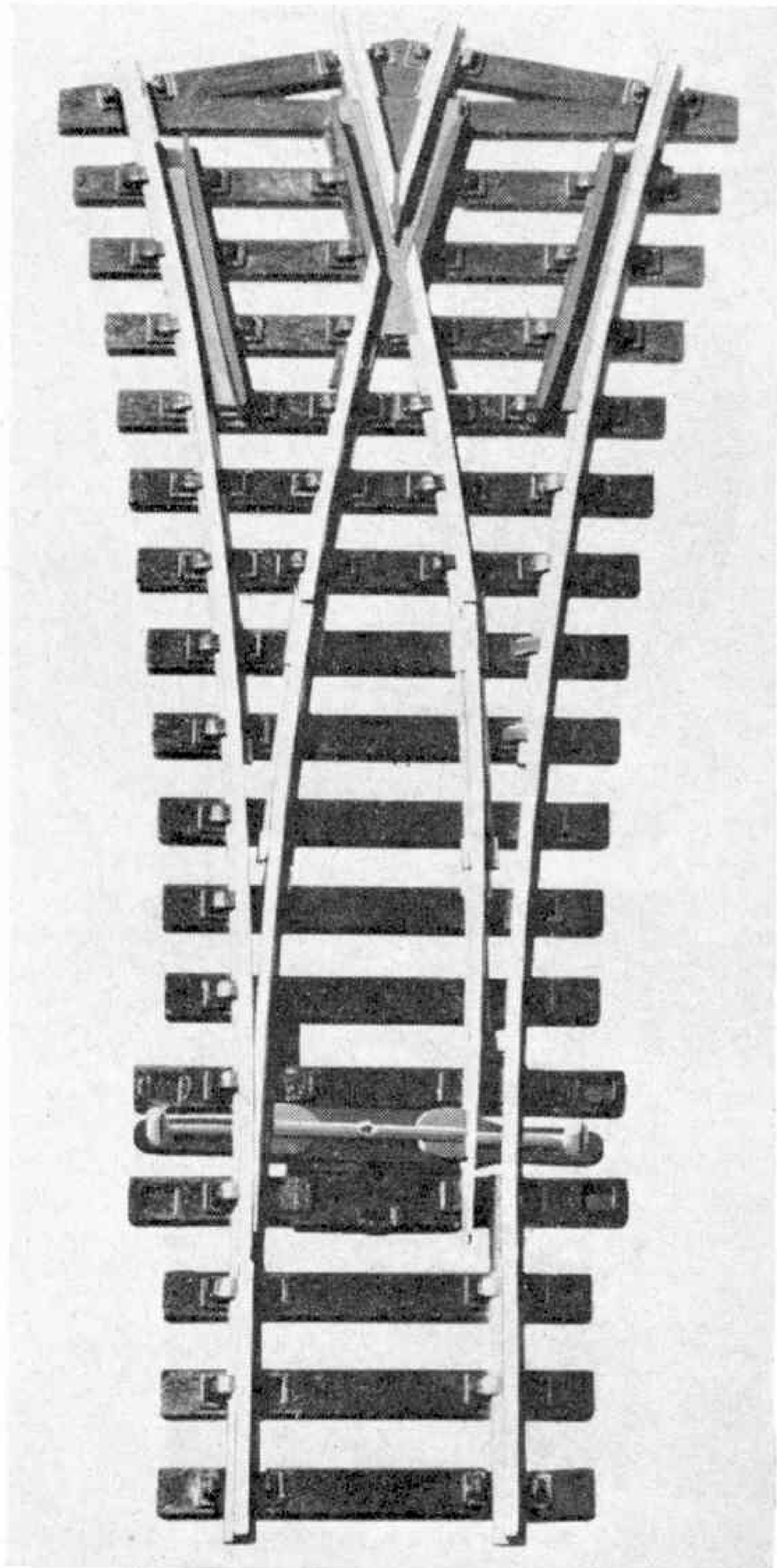


From the makers of the famous Mamod static steam engines comes this realistic model of a steam traction engine (it can also be bought in the form of a steam roller) which every father would be delighted to own! All the moving parts are beautifully turned and it is finished in black, green, red, chrome, and polished brass. The boiler is fired by methylated spirits.
The boiler of the power unit is extended with a condensing chamber for the exhaust which makes for very dry running. A speed regulator and whistle are fitted. At the rear a towing eye projects from the scuttle. The canopy clips allow it to be hinged back for filling the boiler, etc., or if desired removed altogether for the tractor to be used as an open type unit. Extension steering rods are supplied for ease of manoeuvring.
In a trial run a good head of steam with a full boiler was achieved in 7 minutes and the engine ran on this for 15 minutes. On a straight course the engine has travelled 1/3 mile in ten minutes. Retail price is **£4 19s. 6d.** and at this a veritable bargain.

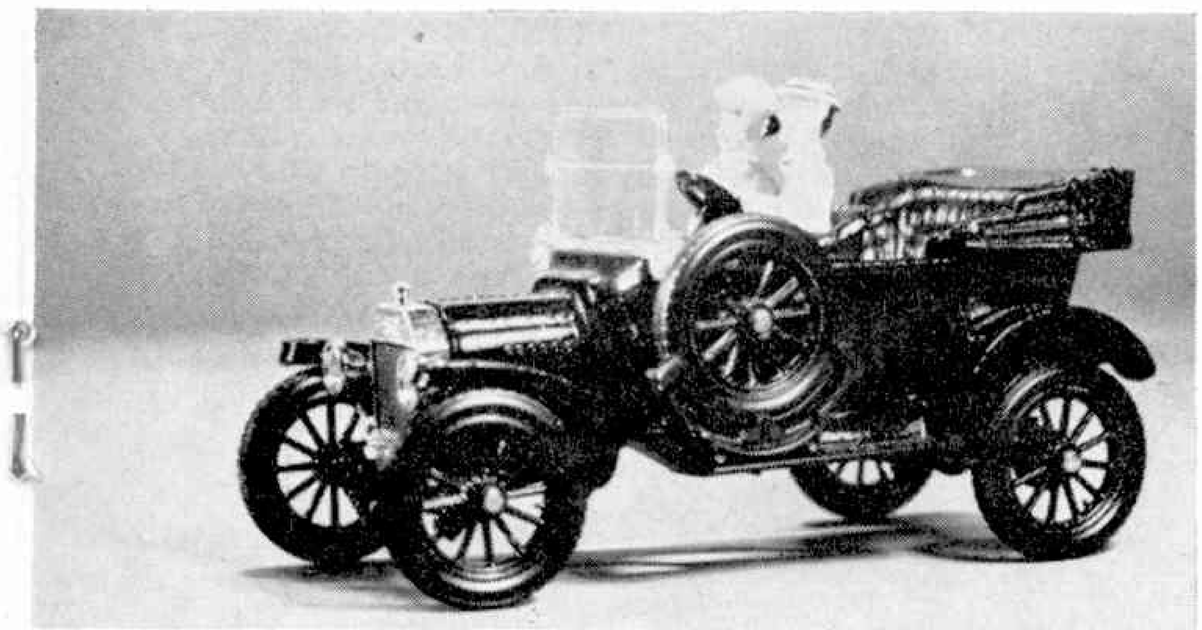


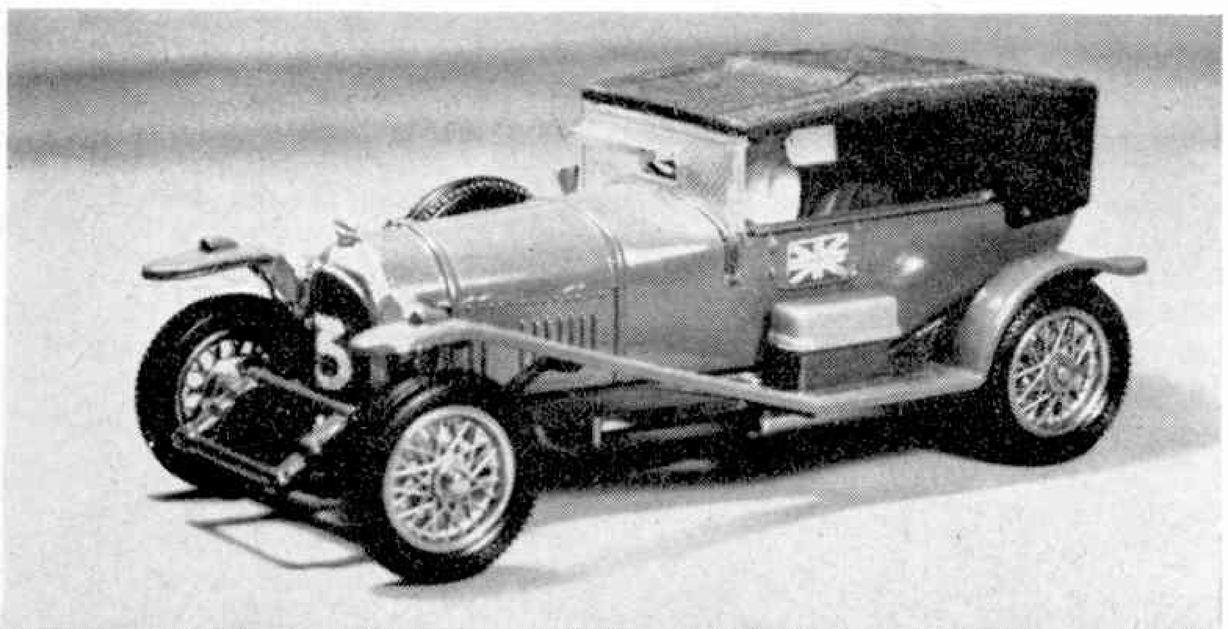


An entirely new stream line Y point from Peco, for all OO/HO model trains. No more loose rails to pull out, the rails are now actually moulded firmly into the base providing perfect flush surface between plastic and metal rail joints. There are no unwanted bumps or misalignments to mar the smooth running of the trains over this point, Fitted with its own switch contacts it has the electrical advantages of two independent circuits so that there are no extra switches or point levers to buy. Pivoted blades for ease of movement and the tie rod is moulded in unbreakable plastic. Can be quickly converted to electrical operation. **Price 10s 6d.**



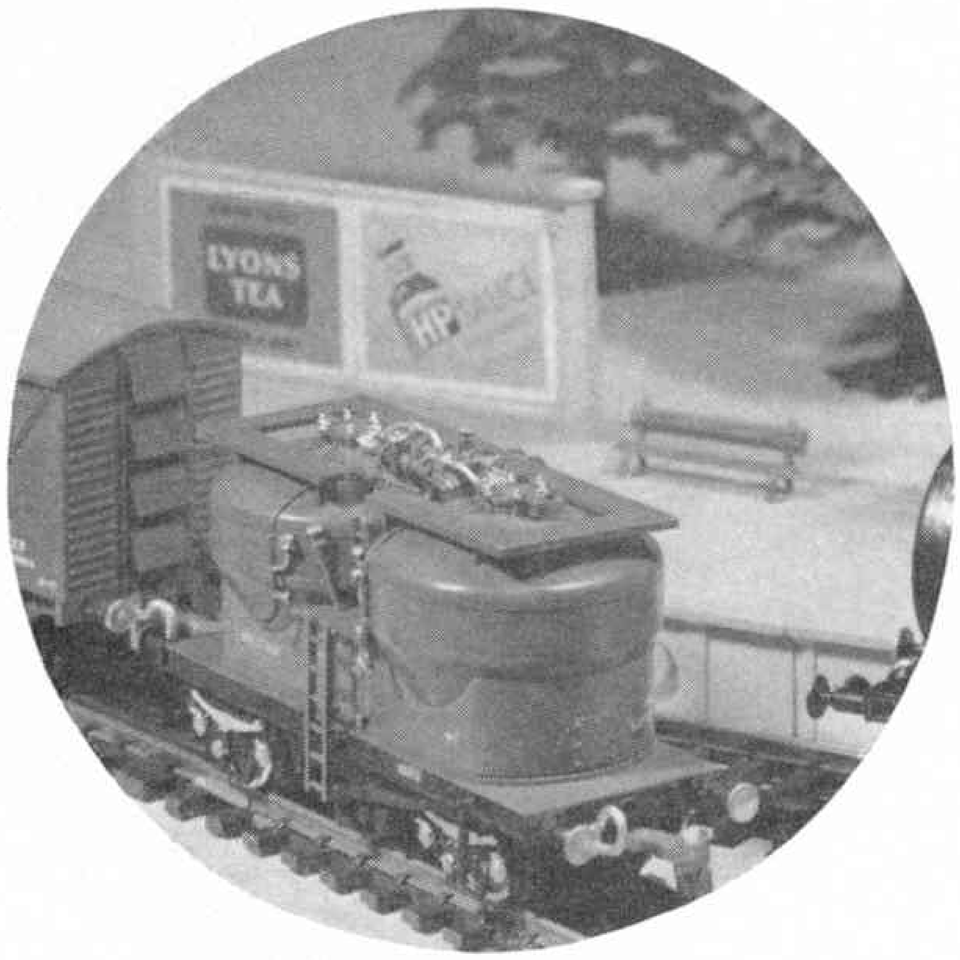
A new type battery operated miniature portable lathe and vertical drilling machine has been produced by New Lines Marketing Co Ltd, (11 Dryden Chambers, Oxford Street, London, W.1). Known as the Mini-Lathe, it has a voltage of 6 to 12 volts and is powered by dry batteries or car batteries and measures only 9½ in in length, by 4½ in wide and 5 in high. The power unit is a Minidrill which when mounted on its stand horizontally, can be used as a lathe for precision work in various applications where a heavy drill would be impracticable. With the aid of various tools such as miniature circular saws and rotary cutters this versatile machine can be used for slitting, slotting, milling, drilling and other intricate lathe work of this nature. It can drill small holes through certain metals such as ¼ in brass, copper, etc. in a few seconds. The 'Minidrill' can be detached and held in the hand if required. Being independent of the mains supply it can be used in out-houses, work sheds and anywhere in the open. It is strongly constructed of heavy gauge steel and duralumin and if desired can be worked from the mains supply when connected to a suitable transformer rectifier unit. Its price is **£12 12s.** The Minidrill power unit costs **£4 7s 6d.**



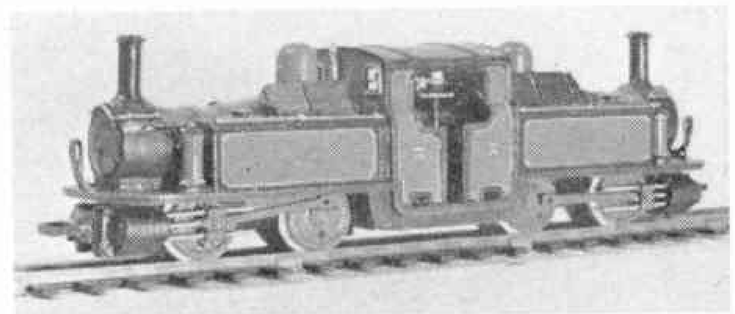


Scale replicas of a 1915 Ford Model T and a 1927 Bentley 3-litre, the first models in an entirely new range known as Corgi Classics, have been produced by the Mettoy Co. Ltd. Object of the series, which has already absorbed three years of research and development, is to recapture in model form the historic years of motoring. Choice of the Ford Model T, first mass-produced automobile, was therefore an appropriate one for the range, and the resulting model has turned out very lifelike. There are authentic pattern tyres complete with valves, driver's controls, moulded 'button leather' upholstery, the characteristic transverse front-spring, transmission shaft, starting handle, lamps and spare-wheel. With the model is a removable driver and his lady passenger both in period dress. The Corgi Model T. costs **10s 6d.**

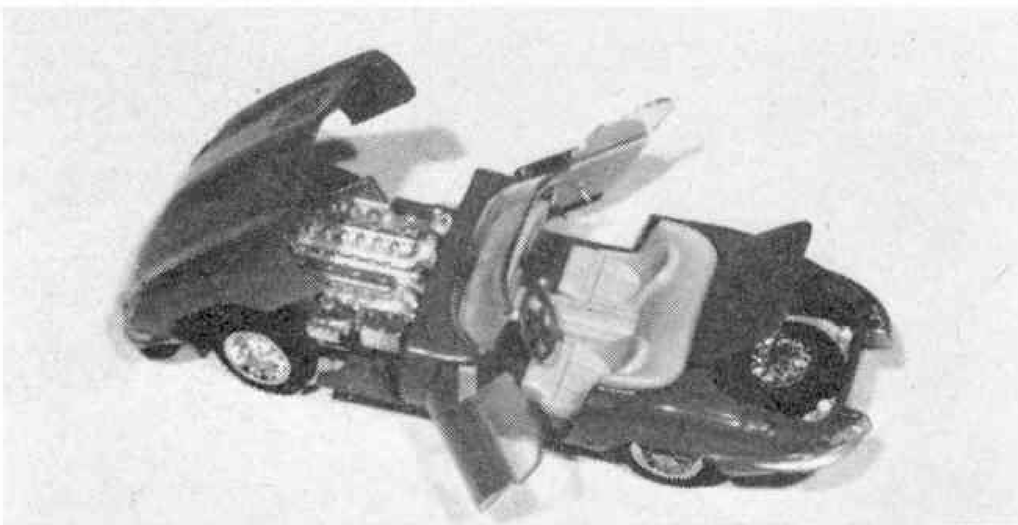
By contrast with the Model T, the Corgi Bentley is an exact replica of the 1927 3-litre Le Mans Team Car, 'Old number 7' in which S. C. H. Davis won the epic 1927 Le Mans for Britain after using the car as a battering ram to smash through a barricade of crashed cars blocking the course. Such is the fidelity of detail that even the exhaust pipe on the model is hollow and finished in burnished copper. Wire wheels, separate brake drums, correct pattern tyres, plated headlamps and radiator shell, separately cast chassis and all under-chassis detail are other delightful features of the model. Mesh stone-guards are moulded into the wind-screen and headlamps while the dashboard and cockpit are meticulously reproduced. Seats and hood are moulded to the correct pattern the hood being a snap fit on to the cockpit so that it can be removed to leave the car in open trim.
A removable moulded driver in racing overalls and soft helmet sits at the wheel and the racing number '3', front and rear, completes the detailing. It costs **12s 6d.**



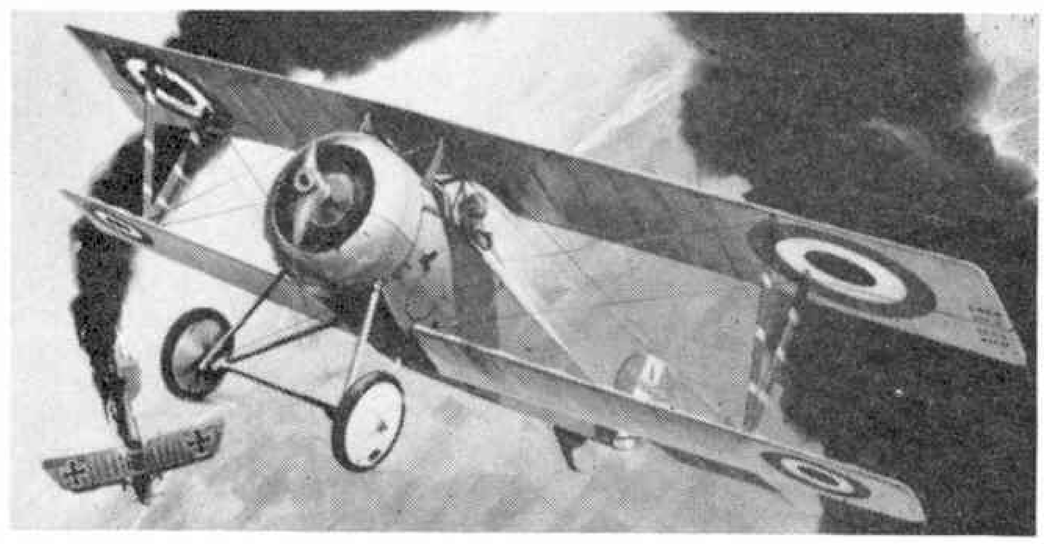
A new 64-component plastic construction kit in the comprehensive Airfix OO/HO scale model railway rolling stock range, is the Prestwin 20-ton Twin-Silo wagon. The Prestwin is a bulk discharge vehicle, many of which are now in use with British Railways. The kit costs **2s.**



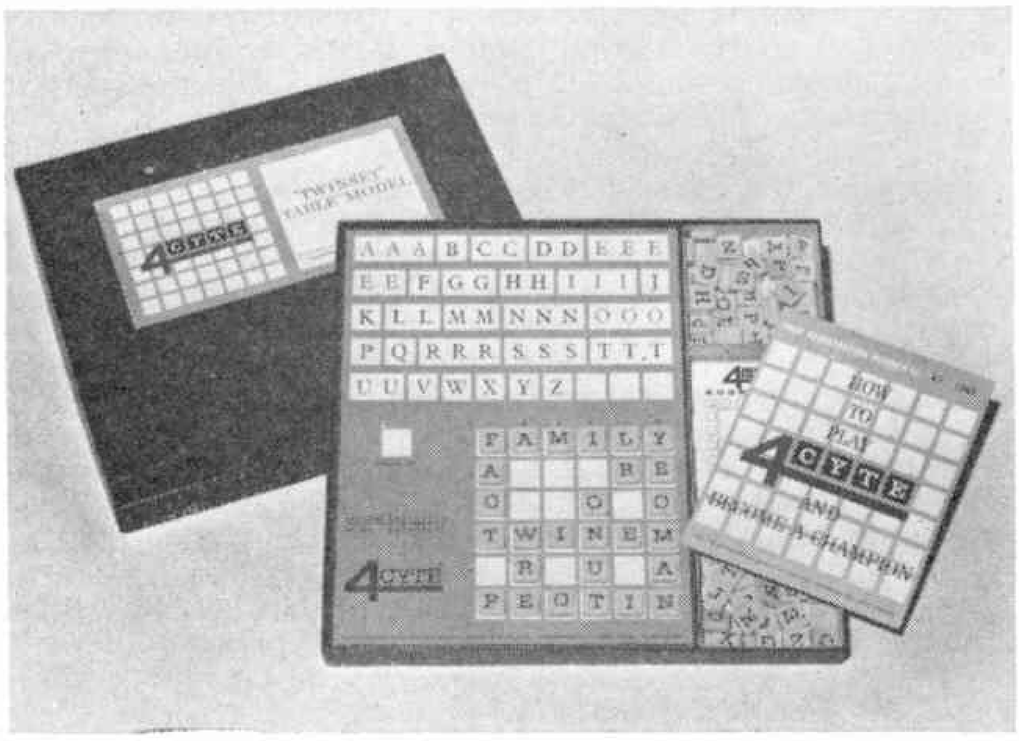
The latest GEM locomotive kit to run on 12 m/m gauge is the Festiniog Railway 'Earl of Merioneth' Fairlie Patent Locomotive. All parts are metal castings with excellent detail. Wheels, axles and working running gear are included in the kit which is to a scale of 5½ m/m to 1 ft—the same as the other GEM Festiniog Railway models all of which have been produced in collaboration with the Festiniog Railway Company. The price of the complete kit is **£5 19s 6d** with **£1 5s** extra for the motor which drives all four axles. For those who require a non-working model a 'static' version is available from the Festiniog Railway Company at a cost of **£2 19s 6d.**



'E' type with everything. The newest release from the Danish firm, Tekno, is an 'E' type Jaguar with opening doors, boot and bonnet. With detailed engine, wire wheels and interior trim. It must rank as one of the best die-cast models so far produced anywhere in the world. Imported by Auto-Models Limited, 70 Finsbury Pavement, London, E.C.2., the retailed price is **15s**



Revell has introduced for the first time ever a **2s** range of aircraft. These first three kits are boxed, all to 1/72 scale and representative of the standard of detail usual in Revell kits. Each kit includes in the detail a pilot figure, rotating wheels and propeller. They are: H.631 Nieuport 17C, (illustrated) the famous World War I French fighter plane which was so successful in combat that the Germans actually ordered it to be copied. H.632 Fokker D.VII, considered by many to have been the finest fighter of the German Air Force in World War I, the Revell kit is a replica of the one flown by Hermann Goering. H.633 SE.5a, many British aces of World War I made their kills in this British fighter, which could out-manoeuvre most of the German aircraft of its day. This Revell model bears the markings of No. 41 Squadron, R.F.C.



An entirely new international family word game introduced into the United Kingdom from the U.S.A. and Canada is 4 CYTE. It can be played solo, or by a group and provides instructive and. educational amusement for children and adults of all age groups. It is a word game played with lettered tiles. The object is to build up six letter words in crossword channels to score points. A helpful instruction book is enclosed with each set. This book also gives descriptive details of the international championship contest and prize awards. There are two sets: the table model at **£1 9s 6d** and the armchair model at **£2 17s 6d.**

Fireside fun

You're not a bad group—but a bit too old for these days.

Why does a humming bird hum?
Because he doesn't know the words.

* * *

Why does the traffic light turn red?
Because it has to change in the middle of the street.

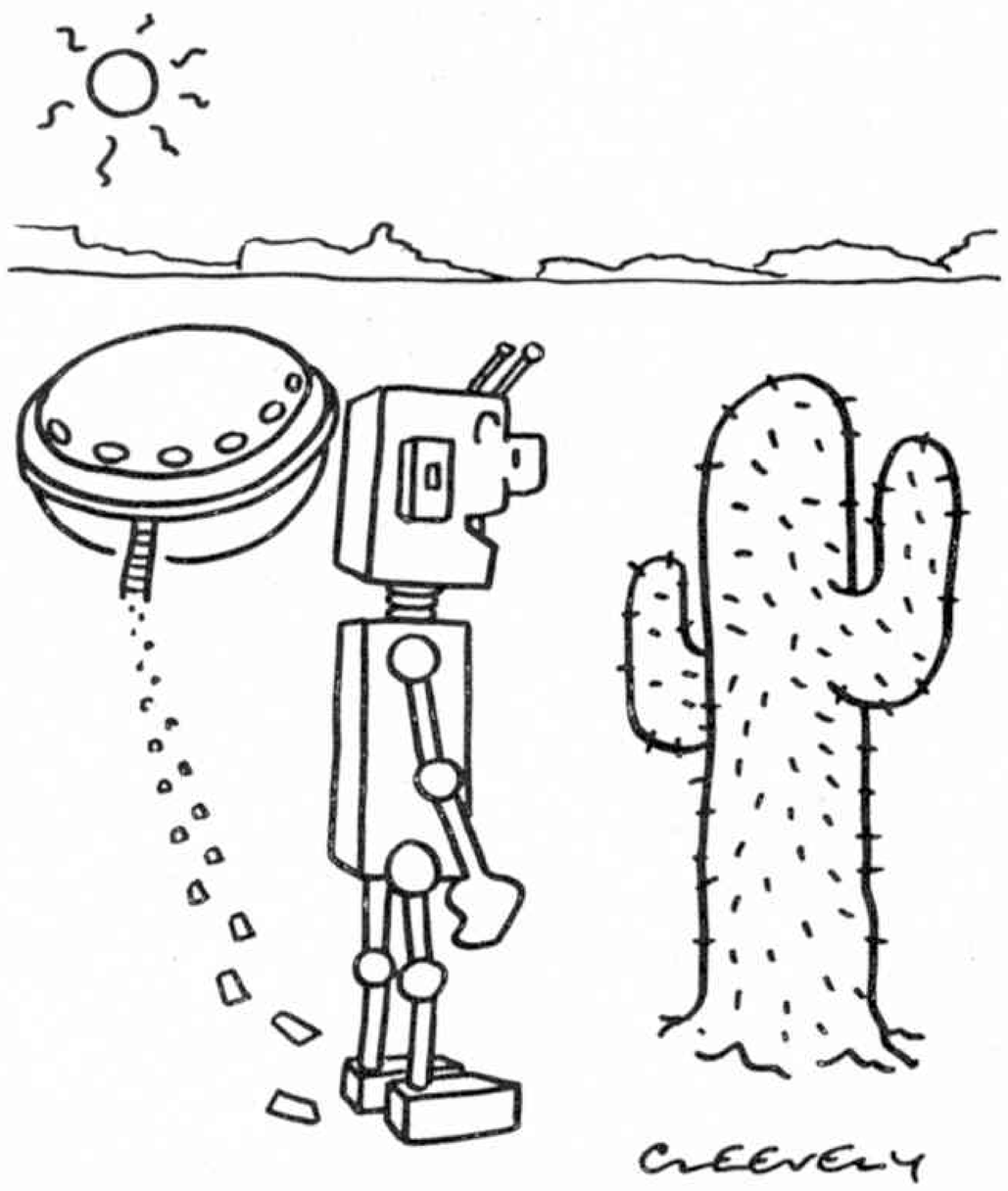
* * *

One cannibal said to another: "This is terrific soup, some of the best I've ever tasted."
His friend replied, "Yes, my wife does make marvellous soup . . . but I must say I shall miss her."

* * *

For every schoolboy with a spark of genius there are a dozen with ignition trouble.

The combination sure went like a *bomb* this morning!



I am not threatening you, friend. Just put down your hands and take me to your leader.

A boy had reached eight years old and had never said a word. His parents were very upset about it. Then one morning at breakfast he said, "I want more sugar on my cornflakes." Overjoyed, his mother said, "Those are the first words you have ever spoken in your life. Why didn't you speak to us before." "Up till now," said the boy, "everything has been O.K."

* * *

An employer was interviewing a youth for his first job, and said, "You can only have the job as long as I am convinced that you are a responsible young man."
"Oh, that's all right, sir", said the boy, "At school, whenever anything went wrong the headmaster told me I was responsible."

* * *

There used to be a time when a parent could promise his son the moon without having to buy him a space suit.

* * *

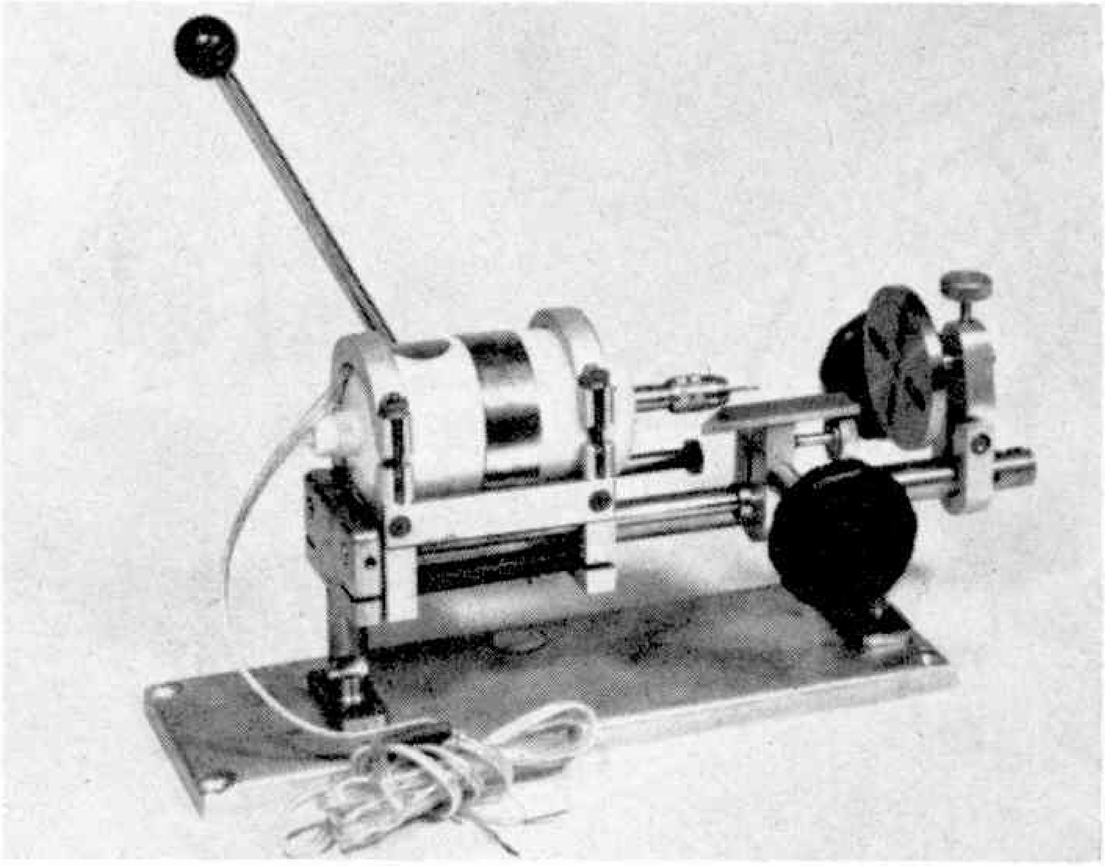
Automation means that we are leaving the push-button age and are entering a new age in which buttons push themselves.

THE MARVEL *Combined*

MINI-LATHE

BATTERY OPERATED

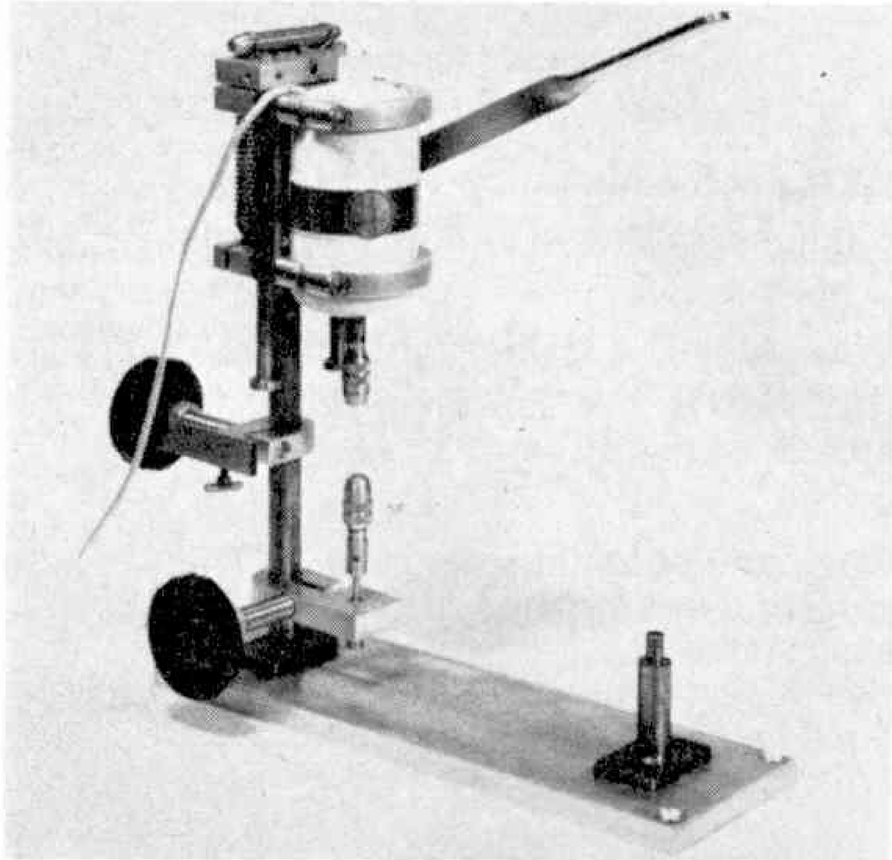
AND VERTICAL DRILLING MACHINE



the world's first battery-operated

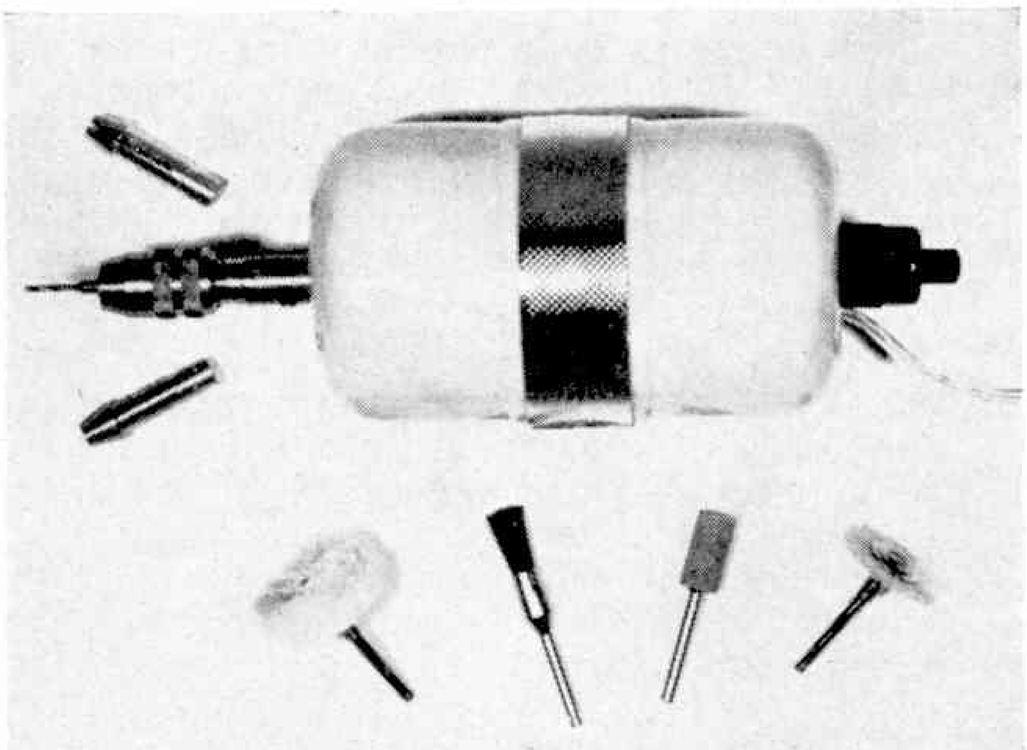
Mini-Lathe price 12gns.

excluding minidrill



showing the machine converted to vertical drill

The machine will drill Brass, Aluminium, etc. It will do slitting, slotting, milling, drilling etc.



No 8 Minidrill kit

MINIDRILL KIT PRICES	
No. 1 kit 27/6	No. 6 kit 67/6
No. 8 kit 87/6	No. 9 kit 97/6

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THIS MONTH

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LOOKS AT

Build Blackpool Tower . . . 30

Make a food mixer 32

Wedding cake on the move . 33

Tree building 34

Vauxhall Viva and Bedford tipper 36

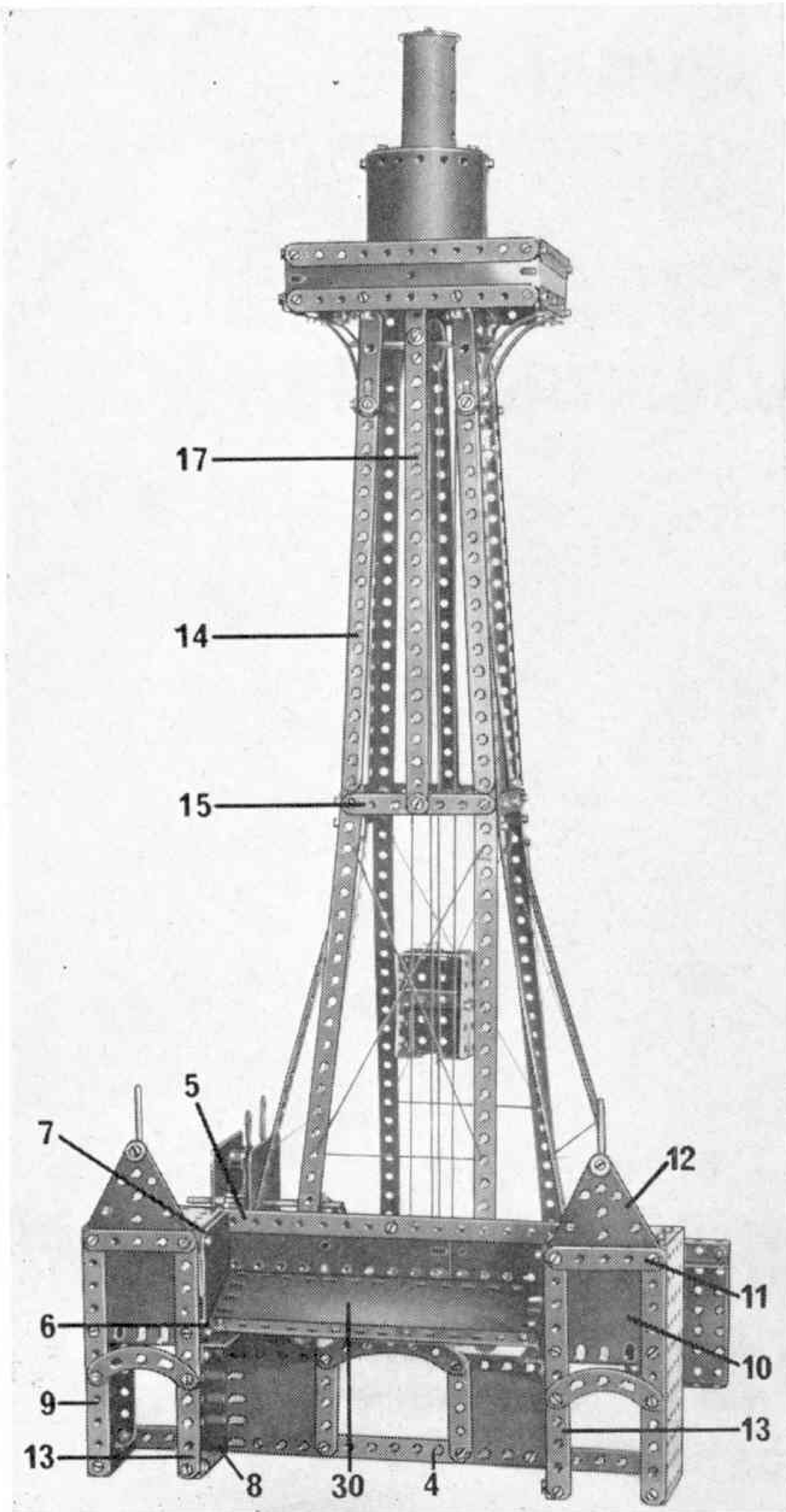
Building an office block . . . 40

Longdon, Newborough and Easthyde railway 41

by **Spanner**

Build Blackpool Tower

A model from Outfit No. 7



A view of the completed model

Parts required.—12 of No. 1; 18 of No. 2; 5 of No. 3; 1 of No. 4; 9 of No. 5; 8 of No. 8; 6 of No. 10; 4 of No. 11; 16 of No. 12; 3 of No. 16; 2 of No. 18a; 1 of No. 20a; 1 of No. 22; 1 of No. 22a; 1 of No. 23a; 1 of No. 24; 179 of No. 37a; 179 of No. 37b; 28 of No. 38; 1 of No. 40; 1 of No. 46; 1 of No. 48; 8 of No. 48a; 2 of No. 48b; 1 of No. 51; 2 of No. 52; 2 of No. 53; 2 of No. 54; 6 of No. 59; 1 of No. 80c; 2 of No. 90; 2 of No. 90a; 2 of No. 126; 1 of No. 186a; 6 of No. 189; 6 of No. 190; 2 of No. 191; 4 of No. 192; 2 of No. 214; 8 of No. 215; 1 of No. 216; 4 of No. 221; 1 No. 1 Clockwork Motor.

It is evident from the accompanying illustrations that, although the model described here is called Blackpool Tower, it is not meant to be a perfectly-scaled replica of that famous northern landmark. It is, in fact, a reproduction in Meccano which follows the basic lines of the real thing, so that its identity cannot be mistaken, but is not exact in detail.

One particularly interesting feature incorporated in the construction is a working lift, powered by a No. 1 Clockwork Motor. As this Motor is equipped with reverse gearing, the lift can be made to ascend or descend at the flick of a lever.

The main structure, or tower proper, is built on a base frame consisting of four 12½ in Angle Girders 1, which are bolted together as shown in Figure 1. This frame is suspended at the rear on two 3½ in by 2½ in Flanged Plates 2, and at the front is bolted to two 5½ in by 2½ in Flanged Plates 3 forming the ends of the front facade of the tower. The Flanged Plates are joined at the rear by a 12½ in Strip 4 and a 12½ in Strip 5.

Each buttress is similarly built. A 2½ in by ½ in Double Angle Strip 6 is bolted to the Angle Girder 1 which runs parallel with the front of the building and a second 2½ in by ½ in Double Angle Strip 7 is bolted to the Strip 5. A 5½ in by 2½ in Flexible Plate 8 is attached to the Double Angle Strips 6 and 7, then a 5½ in Strip 9 is fixed to the flange of Plate 3, at the same time bolting a 2½ in by 2½ in Flexible Plate 10, a 2½ in Strip 11, two 2½ in by 1½ in Triangular Flexible Plates 12 and a 5½ in Strip 13 in position. Strip 13 is fixed to the Flexible Plate 8 at the bottom by means of an Angle Bracket, and a Curved Strip is bolted between this Strip and Strip 9. Each buttress roof is represented by a 2½ in by 2½ in Flexible Plate and then a 1½ in Rod, held in a Collar, is fitted to the top of the Triangular Flexible Plates 12.

Two 2½ in by 2½ in Flexible Plates edged with 2½ in Strips are bolted to the Strip 4, and the 2½ in Strips are connected at the top by a compound 3½ in curved strip,

formed from two $2\frac{1}{2}$ in Curved Strips. Next, two $5\frac{1}{2}$ in by $2\frac{1}{2}$ in Flexible Plates 30, edged by a $5\frac{1}{2}$ in and a $2\frac{1}{2}$ in Strip, are joined together and are fixed at the front to the Double Angle Strip 6 by Angle Brackets. Two $5\frac{1}{2}$ in by $1\frac{1}{2}$ in Flexible Plates are then bolted to the Strip 5, thus completing the front of the building.

Two $4\frac{1}{2}$ in Flanged Sector Plates are bolted to the Girders 1 and these are joined by two $5\frac{1}{2}$ in Strips and two Trunnions 26. Eight $12\frac{1}{2}$ in Strips are bolted to the Girders 1 each spaced two holes from the intersection of the Girders. They should be bent slightly and bolted to four $12\frac{1}{2}$ in Angle Girders 14, at the same time bolting in place four $3\frac{1}{2}$ in Strips 15. Angle Girders 14 are joined at the top by four $2\frac{1}{2}$ in Strips 16.

On two sides of the tower, $12\frac{1}{2}$ in Strips 17 are fitted between the Strips 15 and 16, then two $3\frac{1}{2}$ in by $\frac{1}{2}$ in Double Angle Strips 18, spaced by a $2\frac{1}{2}$ in by $1\frac{1}{2}$ in Double Angle Strip 19 with its lugs facing downward are bolted to the Strips 16 on the remaining two sides. Two compound Strips 20, built up from $5\frac{1}{2}$ in Strips, are secured first to the Strips 15 by Fishplates and then to the lugs of Double Angle Strip 19 by means of a $3\frac{1}{2}$ in Rod which carries a 1 in loose Pulley 21. Collars hold this Rod in place. A cylinder is constructed from two $4\frac{1}{2}$ in by $2\frac{1}{2}$ in Flexible Plates 22 and is then bolted to the Double Angle Strips 18, the top being covered by two Semi-circular Plates 23 bolted to the lugs of the Double Angle Strips 18. The $2\frac{1}{2}$ in Cylinder 24 is held in position by a 3 in Screwed Rod fixed between a Bush Wheel and Semi-circular Plates 23, as shown. The balcony is built from eight Formed Slotted Strips, bolted to the Angle Girders 14 six holes from the top, to which four $5\frac{1}{2}$ in by $1\frac{1}{2}$ in Flexible Plates 25 are attached by Angle Brackets.

The Plates 25 are edged by $5\frac{1}{2}$ in Strips and are secured to each other by Angle Brackets at the bottom and Double Angle Brackets at the top.

A No. 1 Clockwork Motor, fitted with a $3\frac{1}{2}$ in Rod to serve as the output shaft, is bolted to the Angle Girder 1. Drive is taken from a $\frac{1}{2}$ in Pulley with boss on the output shaft to a 2 in Pulley mounted on a $3\frac{1}{2}$ in Rod journalled in the Trunnions 26. The Rod also holds a 1 in Pulley 27 with boss and two Fishplates 28.

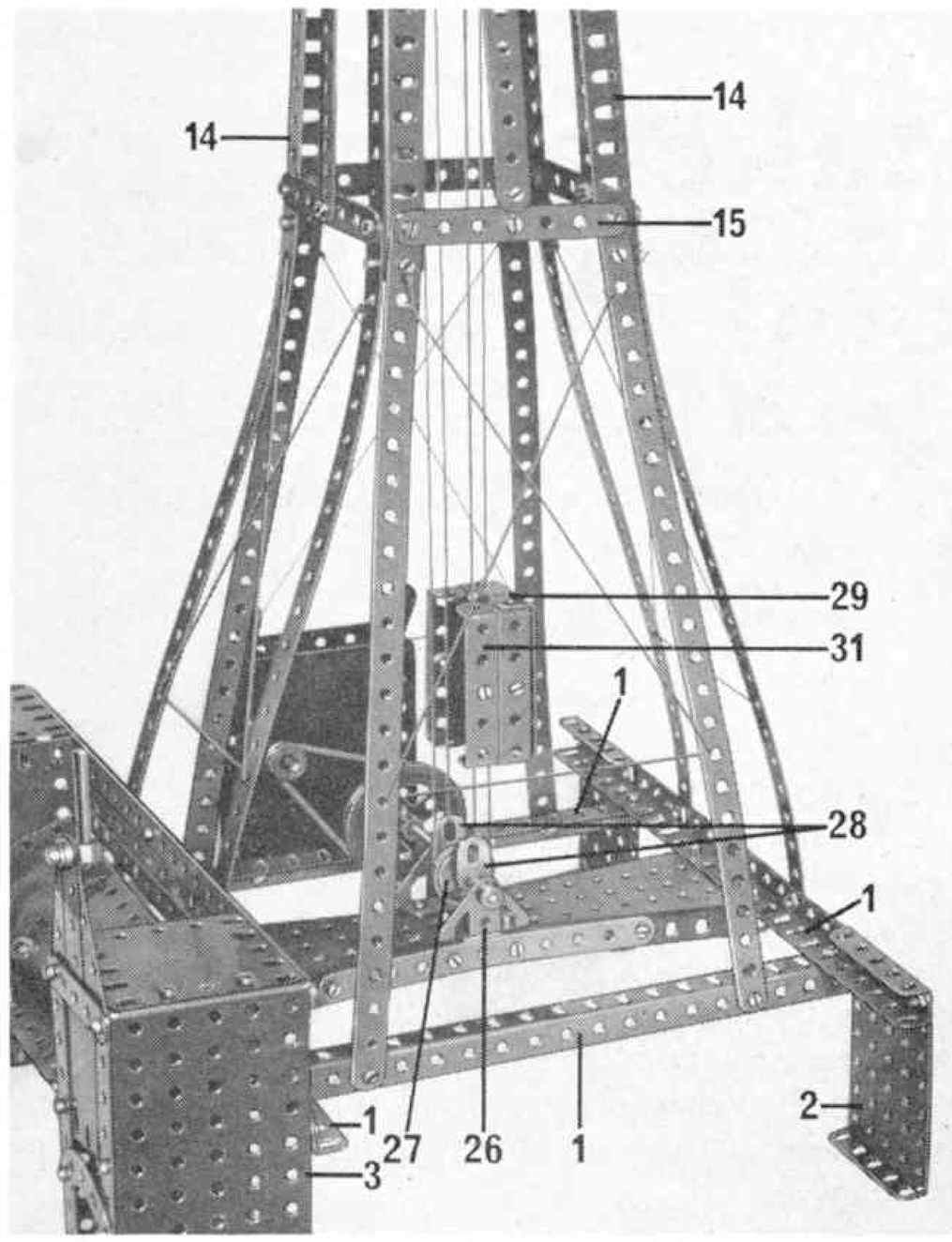
The lift cage

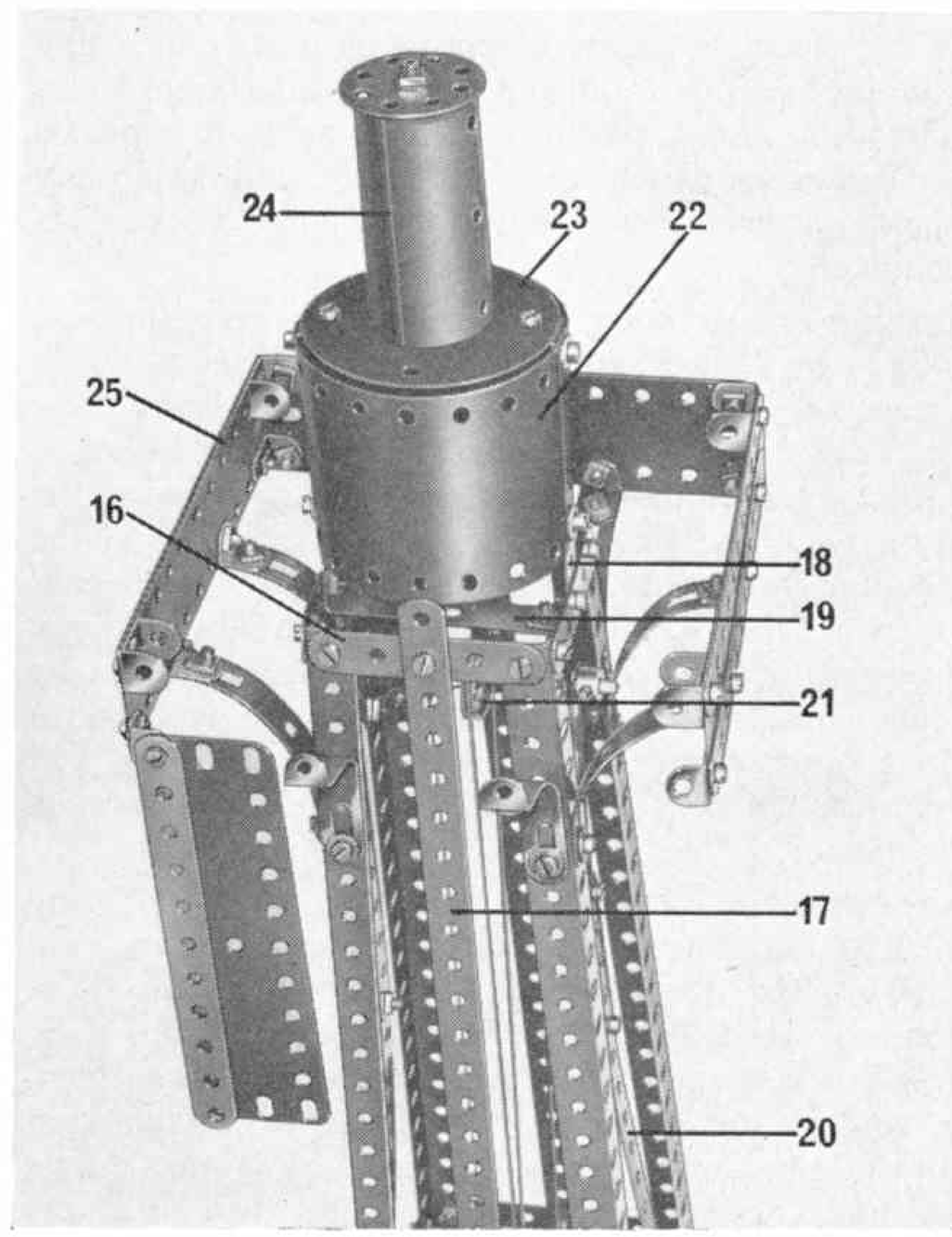
This leaves the lift cage to be built. A $1\frac{1}{2}$ in by $\frac{1}{2}$ in Double Angle Strip, with a Fishplate and a $2\frac{1}{2}$ in by $\frac{1}{2}$ in Double Angle Strip fixed to each lug, is bolted halfway down the inside face of a $2\frac{1}{2}$ in by $\frac{1}{2}$ in Flanged Plate 29. Bolted to the Fishplates is a second pair of $2\frac{1}{2}$ in by $\frac{1}{2}$ in Double Angle Strips 31. Cord is now tied to the top flange of Plate 29, is passed over the Pulley 21, led down the length of the tower, around the Pulley 28 and is then tied to the base of the cage. This gives the lift cage its vertical movement. Cord, serving as a cage guide, is tied to the Fishplate 26, is passed through the holes in the lugs of the outer pair of $2\frac{1}{2}$ in by $\frac{1}{2}$ in Double Angle Strips in the lift cage, and is then tied to the Rod carrying Pulley 21.

All that remains to be done is to tie cord between the Strips which form the lower portion of the tower, to act as bracing wires, and the model is finished.

Top: The base of the model, and the lift.

Bottom: The top of the Tower, showing construction of the balcony.

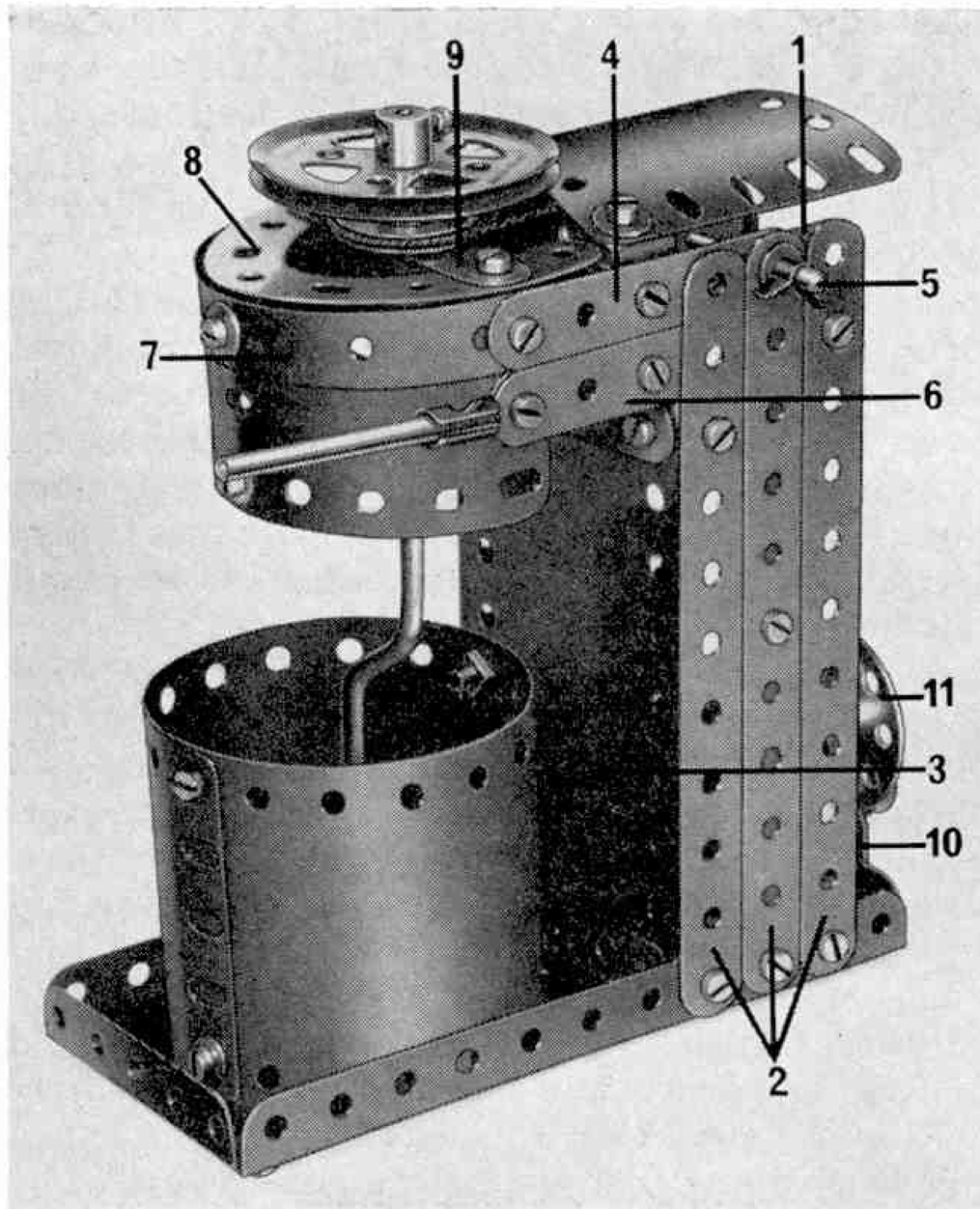




by **Spanner**

Make a food mixer

A new Meccano model from Outfit 4



KITCHEN IMPLEMENTS and labour-saving devices regularly prove fascinating subjects for the keen model-builder. I know of washing machines, scales, floor-polishers, coffee-grinders—and many other things besides—that have been produced in Meccano, and some of them have been able to perform the same duty as the prototype. By far the most popular machine or, at least, the one most copied is the common food mixer, and here we give building instructions for a simple model based on such a device.

One glance at the illustration is enough to show you that the model is purely a representation which could not be used to mix food, but this situation could easily be changed. If the existing mixing bowl were replaced by an enamel or plastic mug, and a motor fitted in place of the handwheel, then it would make quite a successful little mixer.

Returning now to the replica as it stands here, the base is a 5½ in by 2½ in Flanged Plate to both sides of which are bolted two 5½ in by 1½ in Flexible Plates 1 and three 5½ in Strips 2. A 4½ in by 2½ in Flexible Plate 3, fixed at the top by a 2½ in by ½ in Double Angle Strip and at the bottom by Angle Brackets, is fitted in position, at the same time bolting a 2½ in Strip in place at each end. Next 2½ in Strips 4, together with two 1 in loose Pulleys, are placed loosely on a 3½ in Rod 5, held in place by Spring Clips, and a second 2½ in Strip 6 is fixed to Strip 4 on each side by a Fishplate. A 2½ in by ½ in Double Angle Strip is bolted between Strips 6 as a strengthener.

Both sides are constructed similarly, Strips 4 being joined by two Formed Slotted Strips 7 and two 2½ in by 1½ in Red Plastic Plates, as shown. Two 2½ in Stepped Curved Strips 8 are then fixed to Strips 4 by Angle Brackets and a 2½ in Strip 9 is bolted across them. The top of the Mixer is completed by attaching a 2½ in by 2½ in Curved Plate to Strips 4 by Obtuse Angle Brackets. The whole of the top should then tilt back, pivoting on the Rod 5, and a 2 in Rod, attached to Strip 6 by a Rod and Strip Connector, serves as a handle for this operation.

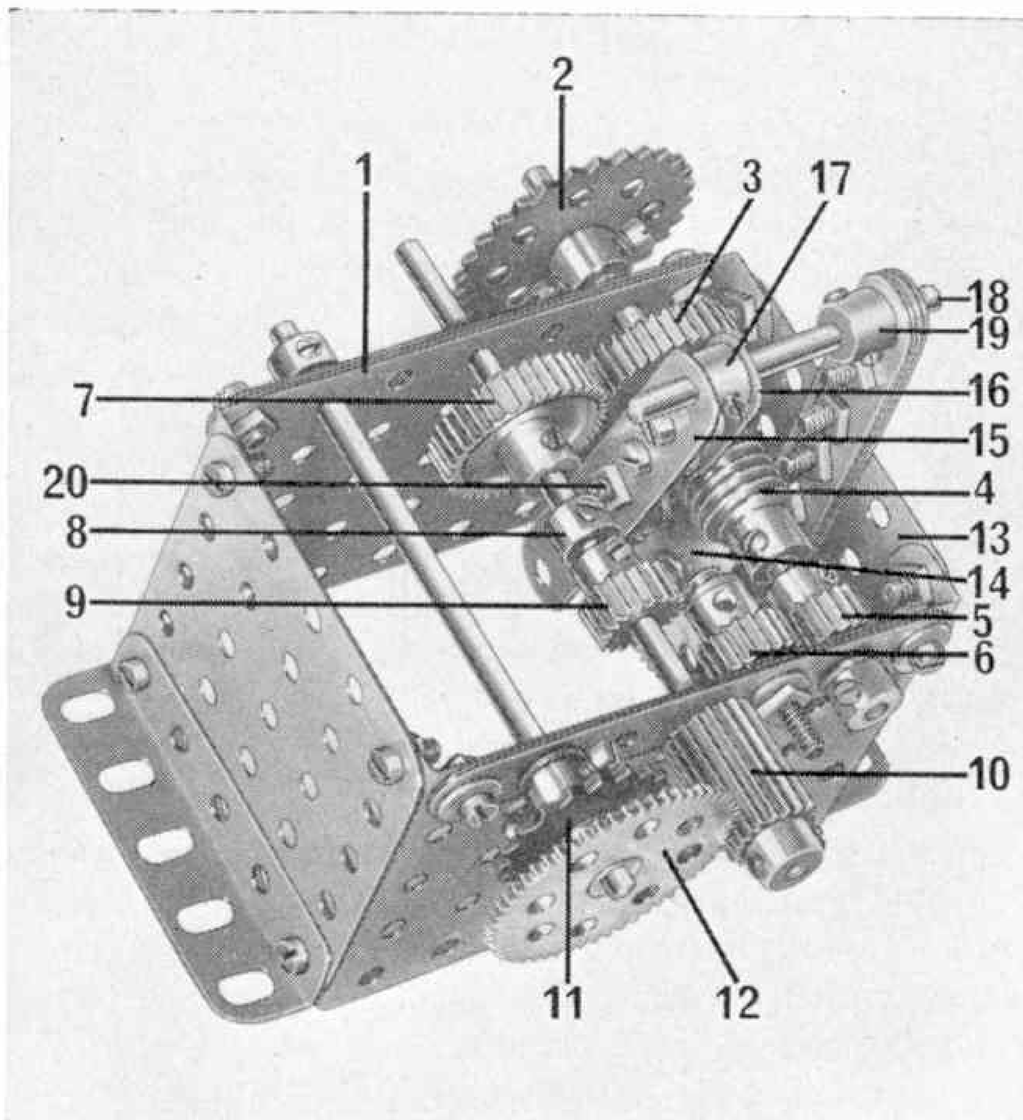
A 4½ in by 2½ in Flexible Plate and a 5½ in by 2½ in Flexible Plate, bolted together, form the sides of the mixing bowl, and the bottom is filled in by two Semi-Circular Plates joined by Angle Brackets to the sides. The mixing arm is a 3½ in Crank Handle which passes through the Strip 9. It is held above and beneath this Strip by 1 in Pulleys with boss and it also has a 2 in Pulley on top.

Bolted to the 5½ in by 2½ in Flanged Plate forming the base is a Flat Trunnion 10, and through its apex hole is journalled a 1½ in Rod that has a 8-hole Bush Wheel 11 on one side and a 1 in Pulley on the other. Cord is passed round the 1 in Pulley and taken up over one of the Pulleys on Rod 5, round the Pulley which rests on Strip 9 and back over the second Pulley on Rod 5. A ½ in Pulley without boss is fixed to the Bush Wheel 11 by a ⅜ in Bolt forming a handle.

Parts required.—6 of No. 2; 7 of No. 5; 2 of No. 10; 6 of No. 12; 2 of No. 12c; 1 of No. 16; 1 of No. 17; 1 of No. 18a; 1 of No. 19s; 1 of No. 20a; 3 of No. 22; 2 of No. 22a; 1 of No. 23; 1 of No. 24; 2 of No. 35; 45 of No. 37a; 44 of No. 37b; 6 of No. 38; 1 of No. 40; 2 of No. 48a; 1 of No. 52; 2 of No. 90a; 1 of No. 111c; 1 of No. 126a; 2 of No. 189; 2 of No. 191; 1 of No. 192; 2 of No. 194; 1 of No. 200; 1 of No. 212; 2 of No. 214.

by **Spanner**

Wedding cake on the move



The Meccano automatic forward and reverse gearbox.

MECCANO HAS many uses over and above its primary function as a miniature-engineering hobby, but only recently did I hear of one really imaginative use to which an enterprising businessman in Kingsbridge, Devon has put it.

Mr. F. R. Turner runs a confectionery business in Kingsbridge, and, as an attraction, features animated displays in his shop window. Not only does he himself build machinery, mainly from Meccano, to operate the display, but he also makes out of sugar and chocolate, the actual moving figures and objects which appear in the displays. For example, his last Christmas 'show' consisted of a large, imitation iced cake with a revolving stage inside. This stage was partitioned in five sections with a different scene portrayed in each. Doors in the side of the cake opened when a button was pushed, automatically switching on the stage lighting as they did so. At the same time, the stage began to revolve slowly, and this continued until the doors automatically closed at the end of the cycle.

Forward and reverse gearbox

Moving on to the illustration on this page, here you see a very useful Automatic Forward and Reverse Gearbox, which is constructed as follows:—

A casing is built up from two 3½ in by 2½ in Flanged Plates connected by two 2½ in by 2½ in Flat Plates, the upper edge of each Flanged Plate having two 3½ in Strips 1 bolted to it. The input shaft is a 4 in Rod, fitted with a 1½ in Sprocket Wheel 2, a Gear 3, a Worm 4 and a ½ in Pinion 5, all fixed tightly to the Rod. In mesh with Pinion 5 is another ½ in Pinion 6 on a 1½ in Bolt held in the Flanged Plate by nuts. This Pinion is free to turn on the Bolt.

The layshaft is a 4½ in Rod which carries a 1 in Gear 7, a Collar 8 and yet another ½ in Pinion 9, between the Flanged Plates, and a ½ in Pinion with ¾ in face 10 outside the Plates. The gears are so placed that when Pinion 9 is fully in mesh with Pinion 6, the gears 3 and 7 are out of mesh. When the shaft is moved to the left, there must be a very short neutral, where neither the Pinions 6 and 9 nor the Gears 3 and 7 are in mesh, before the two latter gears come into mesh.

A second 4 in Rod forms the output shaft and this carries a ¾ in Sprocket Wheel 11 and a 57-teeth Gear 12, both outside the Flanged Plates. No matter how far the layshaft moves, this Gear must be in constant mesh with ½ in Pinion 10.

To the inside of Flat Plate 13 a Double Arm Crank is fixed in such a way that its boss is in line with the centre hole of the Plate. The bolts which hold the Crank in position also hold two 1½ in Strips in place on the outside of the Plate. A 1½ in Rod is journalled in the boss of the Crank by two Washers, and is held in place at its other end by a Collar. The Gear is meshed with the Worm on the input shaft. A Sleeve Piece is pivotally connected to Gear 14 by a ⅜ in Bolt which passes through one of the holes in the Gear and is held in the boss of the Sleeve Piece by a Grub Screw.

A 3½ in Strip 15, held in the Sleeve Piece, is connected to a 1½ in Strip 16 by ⅜ in Bolts, but is spaced from it by Collars. Another Collar 17 is held between the Strips and the whole arrangement is slipped on to a 2 in Rod 18. Collar 17 is fixed to the Rod. Four 2½ in Strips, to which a Crank 19 is bolted, are attached to Flat Plate 13 by ⅜ in Bolts and Rod 18 is fixed in the boss of this Crank. Finally, a ⅜ in Bolt is held in the centre hole of 3½ in Strip 15 by nuts, so that its head is located between the boss of Gear 7 and the Collar 8. This is instrumental in changing gear.

by **Linesman**

The art of making trees

I PROMISED, last month, to tell you how to build trees, but before doing so I would like to say a word about commercially-produced trees, some of which, although a little expensive, are excellent reproductions of the real thing. Among manufacturers of model trees are Britains Ltd., Gem, Merit, Welkut, Slater, W. & H. and E.R.G. The most recently introduced range of trees is that produced by Britains Ltd., who offer a wide range of different types, among them the oak, the apple tree, the birch, the pine and others, all of which are made singly in kit form for approximately 2s 6d. Some, however, cost more. These kits are made from resilient plastic which has moulded on it leaves, branches, and, in the case of the apple tree, the apples themselves. The trees are to scale, and it may, therefore, surprise some of my readers to learn that the model of the oak tree stands a full 9 in high.

The oldest and a well-known range of lineside accessories, including trees, is produced by Merit, who manufacture plastic products in kit form. In the case of both Britains and Merit, kits are extremely simple to assemble and can, in fact, be put together in about fifteen minutes. The kits produced by Merit are produced in threes, fours and sixes (boxed).

Trees by GEM and W. & H., also of a quite high standard, are not of plastic, and non-plastic trees are also made by Welkut Model Products. Those from the last-named manufacturer are cheap in price and are intended for overall scenic effects. They are not quite as fully detailed as Britain's or Merit's. The trees produced by Slater are of outstanding quality, and incorporate the minutest detail. They are, however, a little dearer than the other products mentioned.

The most popular method of building trees at home involves the use of twigs of a suitable size to represent an OO scale tree. These twigs should have a reasonably thick stem to represent the tree trunk, and a large number of small twigs branching off the main stem. Before carrying operations any further, it would be just as well to dip the twig in a preservative such as diluted glycerine, available from most chemists. The foliage can consist of any one of the following: rubberised horse hair, lichen, sawdust, tea leaves, steel wool and loofah.

Dealing first with rubberised horse hair, this is sold by upholstery firms, and is for rejuvenating settees and other furniture. The material is sold in 'blocks' and has a stiff, spongy feeling. If looked at closely it appears rather like hair dipped in wax or rubber. To use this material for foliage, a piece of approximately the right size and weight for the twig to which it is to be glued should be pulled from the main 'block' of horse hair. This piece should then be expanded by pulling gently with finger and thumb. Using a strong glue, such as Evostick, Bostick (white), Uhu, or other similar adhesives, affix the rubberised horse hair to the required branch, or twig. This action should be repeated in the case of every branch of the tree, and when the glue has completely hardened, the pieces of foliage should be sprayed a medium yellow green or, alternatively, dipped in a pot containing oil paint of this shade. Before the paint dries, sawdust previously dyed should be sprinkled on to the rubberised horse hair.

When the paint has dried, the trunk can be given a coat of brown and grey, and parts of the foliage can be tinted brown to represent branches. This method gives a very inexpensive tree, and a great many can be made during the course of an evening.

Steel wool is a very similar material to rubberised horse hair in the sense that it has to be expanded with fingers and thumbs before being glued to the branch. This also has to be painted and dipped in either dyed tea leaves or, alternatively, dyed sawdust. The difference between these two materials is that tea leaves gives a more representative leaf appearance, whereas sawdust offers a better impression of foliage. Loofah is, in my opinion, much inferior to either steel wool or rubberised horse hair, but it can be used with skill. As my readers may know, this material is sold in blocks by wallpaper shops, hardware stores, and Woolworths. To make it look like foliage, it has to be skilfully cut into the shape represented by the branches and leaves. It is then coated with tea leaves or sawdust.

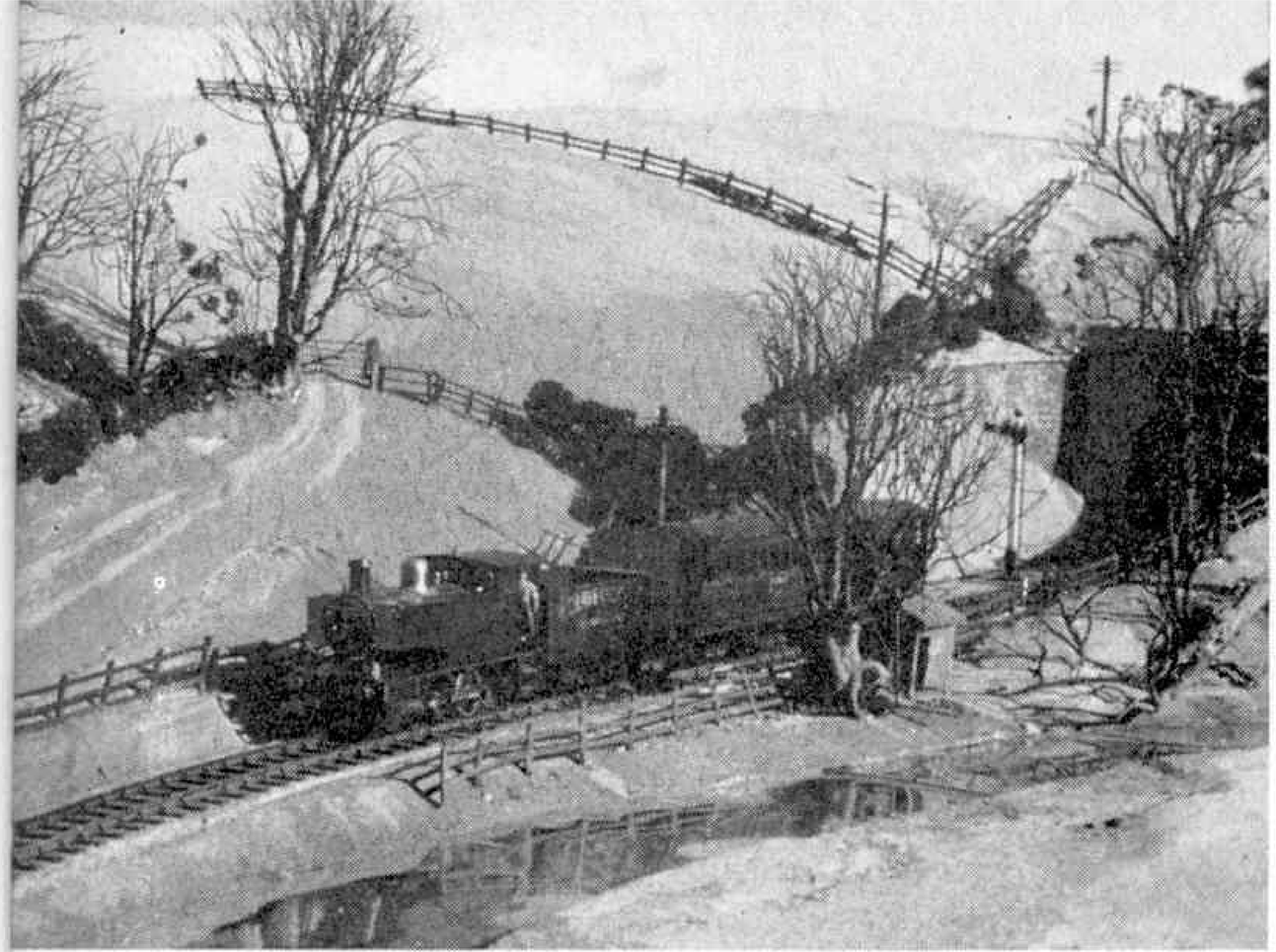
Lichen has recently become popular for tree making. Lichen, which gives a very effective tree, is obtainable from shops selling plants, and, in some cases from shops supplying materials for tropical fish tanks, although many model shops are now stocking it in packs costing 2s 6d. It requires some preparatory treatment before being used for foliage. It should first be washed in warm water to clear it of soil and other foreign material, and then dipped in a dilution of glycerine which should consist of one part glycerine and two or three parts

1. A panoramic view from the Coombe Bissett branch model railway owned by Mr. C. Oates. The photograph shows groups of trees built by various methods. Photo. 'Railway Modeller'.

2. A picturesque scene on a layout owned by Illiffe Stokes, of Lower Dowdeswell, near Cheltenham, which shows four or five trees built on the wire principle as described in the article. Photograph by courtesy of the 'Railway Modeller'.

3. The poplar and the oak from Britains Ltd. They are constructed from quickly assembled kits and are made to scale. They are two of a range which also includes the silver birch, pine and apple.

4. A typical type of twig used to form the main trunk of a model tree.



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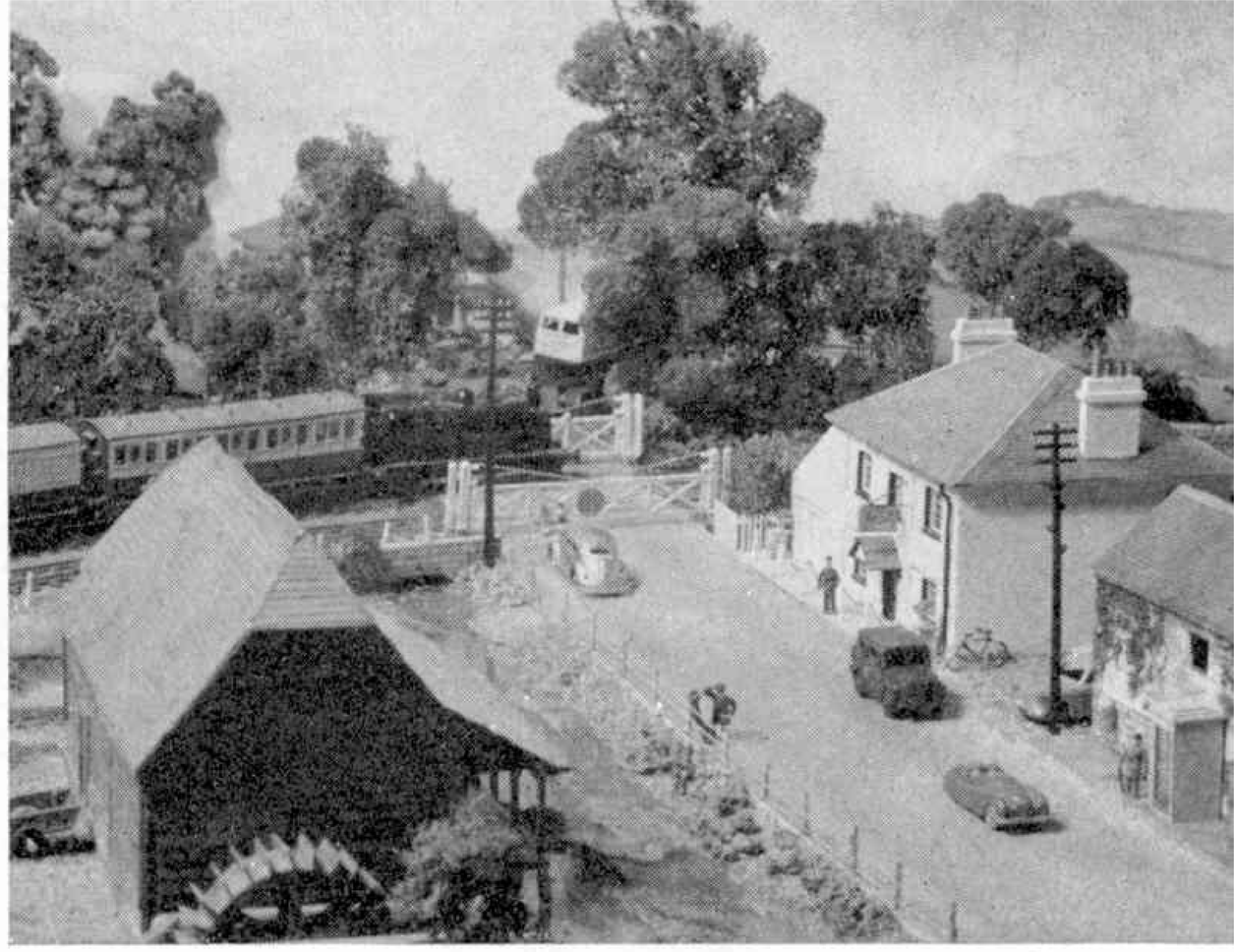

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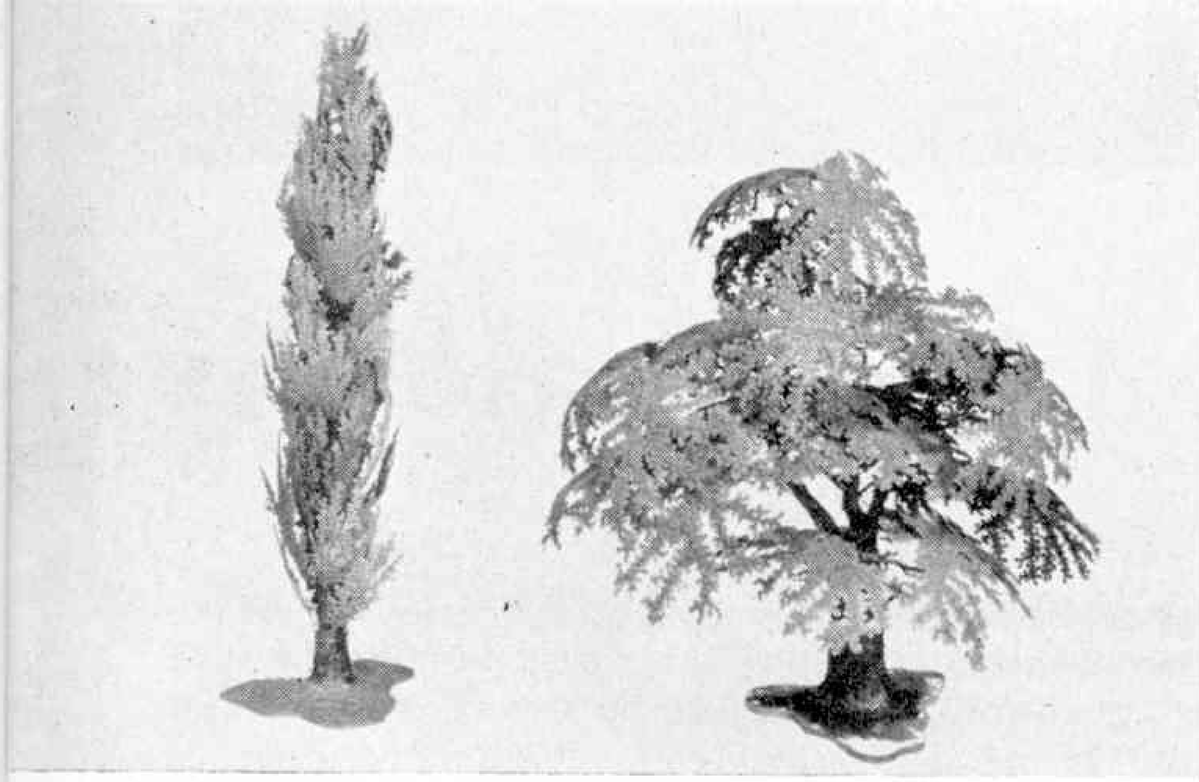

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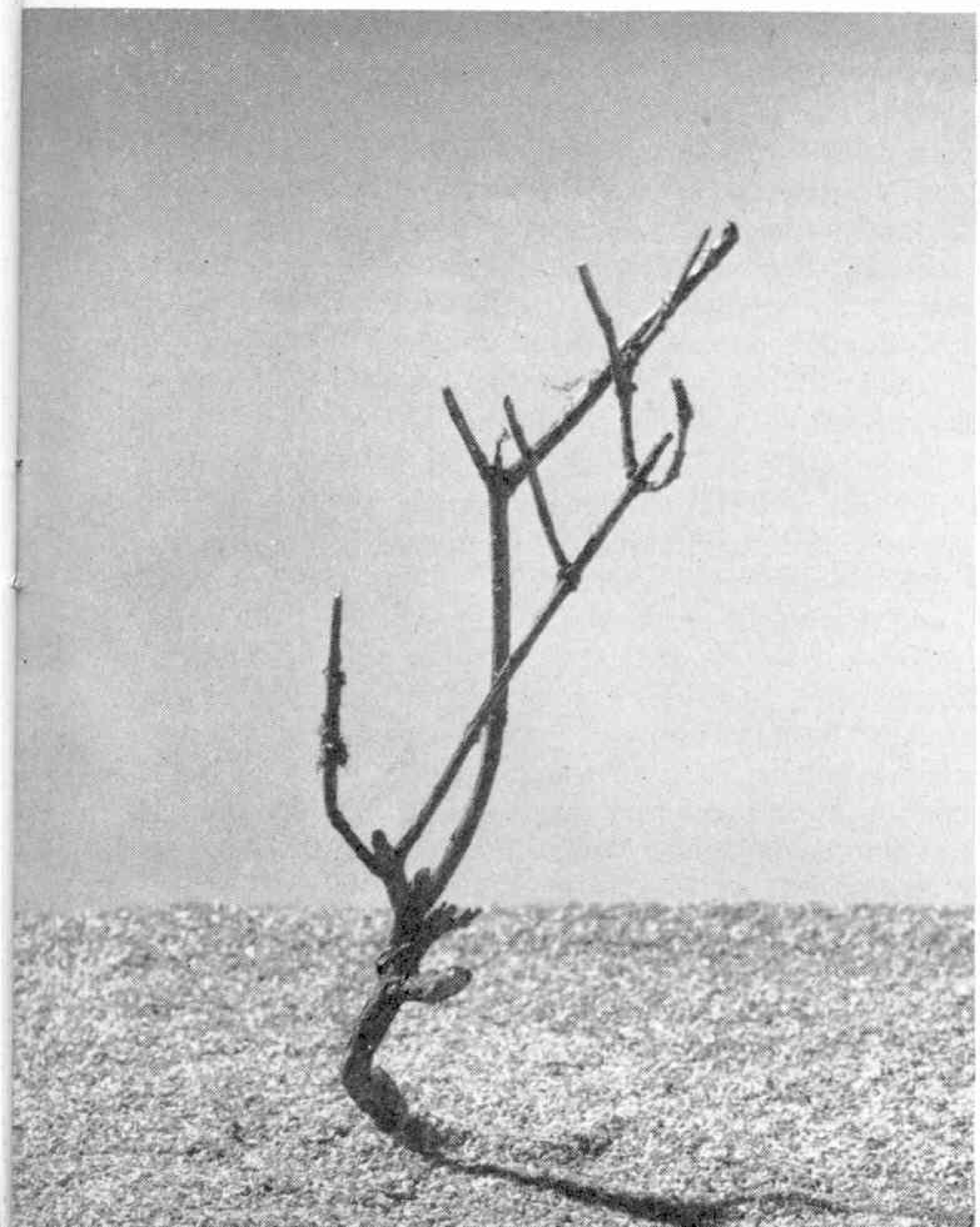

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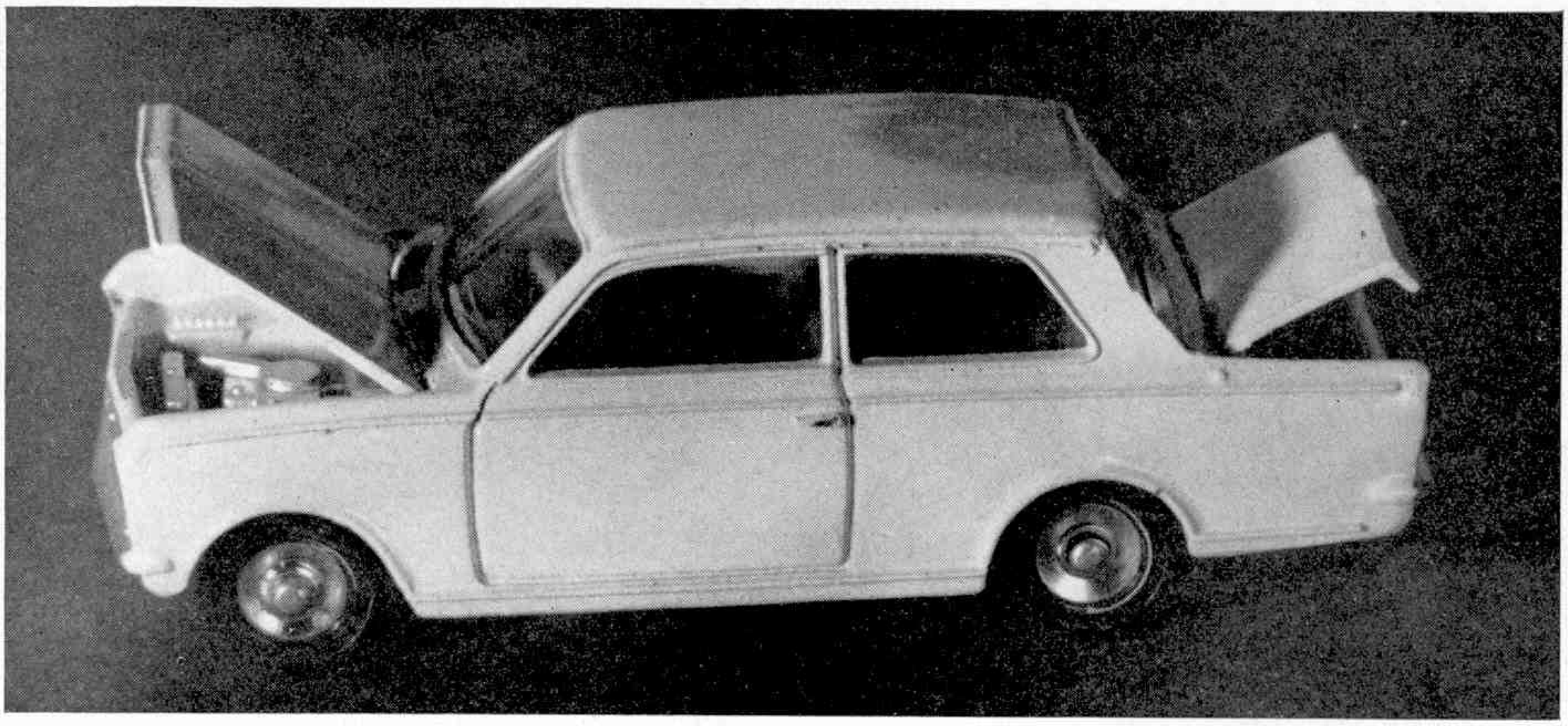
water. When the lichen is dried it should be dipped in paint of medium green shade, or alternatively, Humbrol foliage green paint. Still another way is to colour the lichen with brown paint, to represent the branches, tea leaves or sawdust then being added.

The drier the lichen before painting, the darker the resultant colour will be. If you do not wish to add tea leaves or sawdust the foliage should be painted green. If you wish, you can add leaves to the outside of the lichen, then dip the tree in a solution of glue and sprinkle green flock over it. The green flock gives a much finer finish than sawdust or tea leaves, but in my opinion the flock method is unsuitable for use on rubberised horse hair or loofah.

The last method I want to describe this month is one involving a little more skill than those already mentioned and trees built in this way require a multi-strand cable such as Bowden cable or, alternatively, electrical multi-strand flex. The trunk of the tree is made from several of the cables bound together with cotton, and the branches are portions of one of the cables taken off at a suitable angle and divided at its ends to give the twigs and shoots.

It is advisable, when making a tree by any of the methods described, to have photographs of a tree or trees in front of you so that you can see the angles at which branches sprout from the trunk. Tree roots can be represented by splaying out the lower ends of the cables in different directions. When branches and shoots have been arranged to your satisfaction, the trunk can be wrapped with gummed paper, starting at the bottom and working up the trunk. Plastic wood is used to fill in the cracks at the lower end of the tree and to cover up the joints in the paper wrapping. The brown paper wrapping is taken only half-way along the branches, the remainder of the wire being left bare until painting. At this stage, the entire tree should be given a coat of brown paint mixed with grey and, if you like, other colours. The ends of the twigs should be coated with gum, which is then dipped into flock or very fine sawdust. This method is not suitable for beginners, or for anyone who wants to produce a lot of trees in a hurry. It does, however, give an excellent representation as you will see from one of our photographs.



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Dinky Toy news
by **Chris Jelley**

Vauxhall Viva

RECENTLY I WAS asked my opinion as to what was the most discussed new car (real, not Dinky) to be released during the past year. 'A difficult question', I thought—and I have still not been able to decide on a definite answer, although I have considered the matter at length. My first vote was for the Rover 2000, but then I changed to the Triumph 2000, then to the Ford Corsair and so on, until, now, I simply cannot make up my mind. If you, yourselves, ponder on the question, you may well come up against the same brick wall.

Uncertain or not, however, I am sure you will agree that, even if it is not *the* most talked-about vehicle, the Vauxhall Viva is well up in the front rank of conversational subjects. Perhaps, also, the new Dinky model of the Vauxhall Viva will be as actively discussed in the model car field.

Vauxhall's announced the Viva on September 27, 1963 and, thanks to an excellent publicity campaign, people soon knew its main features. But for any readers who did not obtain the information at that time I repeat the car's outstanding features here. Theoretically, the Viva is a small car, being powered by a 4-cylinder engine of only 1057 cc capacity, but it certainly has the performance of a much bigger vehicle. Gross power output at 5,200 rpm is 50·1 bhp and this, when transferred to the rear wheels through a four-speed, all-synchromesh gearbox, results in a top speed of 80 mph, and a cruising speed of 70 mph. Overall dimensions are:— wheelbase 7 ft $7\frac{1}{2}$ in; length 12 ft $11\frac{1}{10}$ in; width 4 ft $11\frac{2}{5}$ in; height (laden) 4 ft $5\frac{3}{10}$ in; front track 3 ft $11\frac{2}{5}$ in; rear track 4 ft $0\frac{1}{5}$ in. Spacious seating is provided for four adult passengers, but two adults and three or even four children could be easily accommodated.

'Best buy'

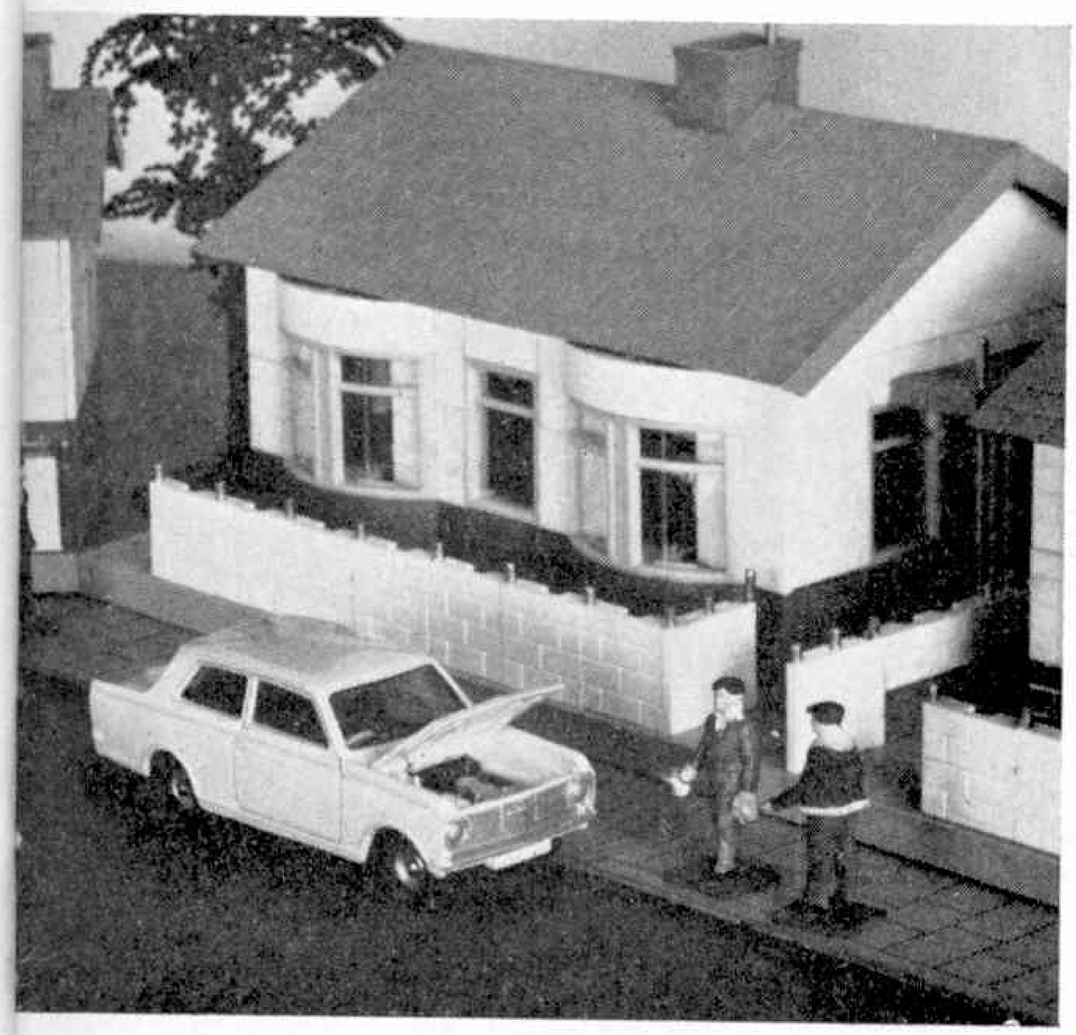
Luggage space is always an essential feature of any family car and the designers of the Viva have not forgotten this requirement. An amazingly large boot, with a capacity of $10\frac{3}{4}$ cu ft for hard luggage is included, in addition to the spare wheel. The separate front seats tip forward to give easy access to the rear bench seat, the car being a two-door model, yet little inconvenience is caused by this as both doors are made specially large. Interior upholstery is in tough Vynide, which is both smart in appearance and easy to clean. Concluding, it is safe to say that the Vauxhall Viva is a 'best-buy' in its class.

One important question now, of course, would be, 'Is the DINKY TOYS VIVA a 'best-buy' in *its* Class?' The answer —'Undoubtedly, yes'. This is a really superb little miniature which closely follows the lines of the prototype

1 A close-up of the Viva showing the opening bonnet and boot.

2 This realistic scene, making use of Bayko buildings, features the new Vauxhall Viva, Dinky Toys No. 136.

3 Dinky Toys new Bedford TK Tipper No. 435.



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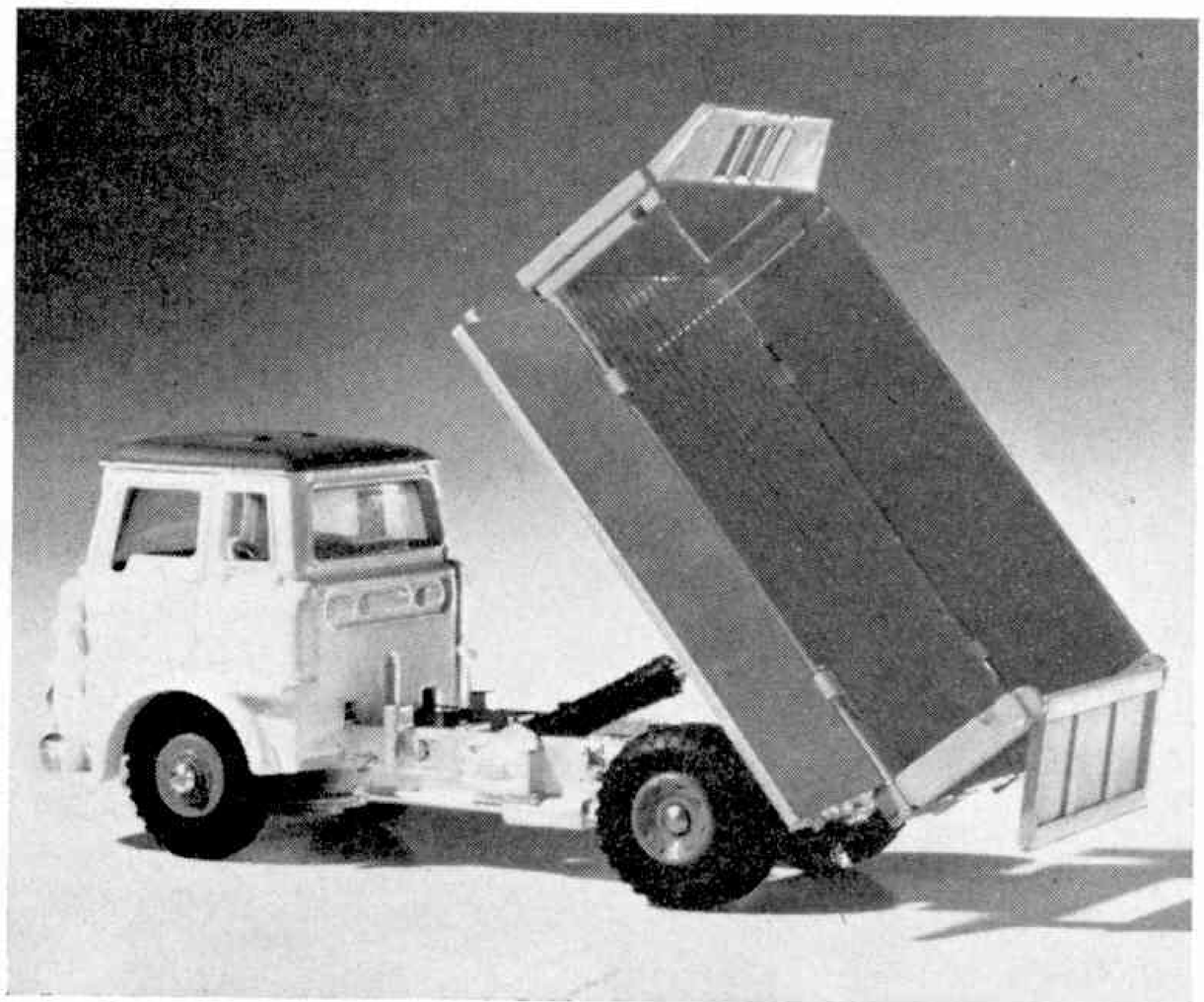


3

and an up-to-the-minute tipper

right from the distinctive Vauxhall radiator grille down to the door handles and petrol filler cap. Features include windows, interior fittings, Prestomatic steering and 4-wheel suspension in addition to an opening bonnet, covering a detailed engine, and an opening boot. The model also has a die-cast base that sports considerable chassis detail. On it are shown the outlines of the main chassis members, the engine and gearbox, plus the propellor shaft, exhaust system and differential casing.

Two external colour-schemes are available, one similar to the real car, a neat shade of grey, and the other a brilliant blue. This latter finish has never before been used on a Dinky Toy. Overall dimensions are: length $3\frac{23}{32}$ in; width $1\frac{3}{8}$ in; height $1\frac{19}{64}$ in; and wheelbase $2\frac{3}{16}$ in. So much for the Viva. Now let me deal with this month's second new Dinky. Last month, you may remember, we released a breakdown wagon, equipped with the commercially-famous Bedford TK chassis under the official name Bedford TK Crash Truck. This month we have another model fitted with a similar chassis but, instead of a towing winch, a tipping body is attached. The completed replica, numbered 435 in our lists, is termed Bedford TK Tipper, and it can be seen to good advantage in my accompanying illustration.

Hydraulic ram

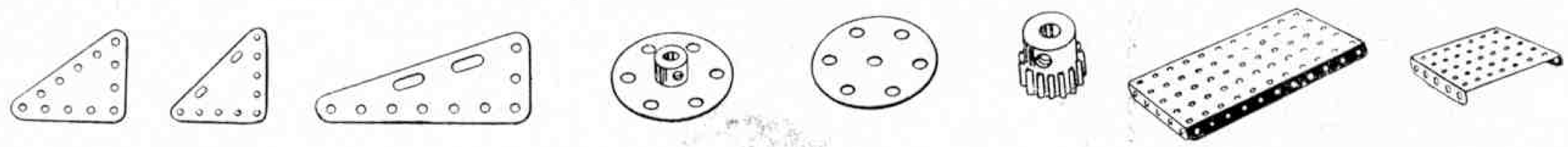
As, in April, I gave details of the prototype chassis, there seems little point in repeating that information here. Instead, I will move on to the Dinky Tipping Lorry itself, which should prove particularly popular with commercial vehicle fans. Besides the detailed TK chassis, which is equipped with such standard fittings as windows, seats and steering wheel, the tipping body or load platform has collapsible sides and an opening tailgate, hinged at the top. Movement is governed by a single, centrally-situated hydraulic ram, operated by hand, and finish is in an eye-catching orange colour.

Regarding the remainder of the model, the cab is grey with a blue roof, the chassis members and the radiator grille are silver, and the wheels are blue. Approximate dimensions are:— wheelbase $2\frac{5}{8}$ in; length $2\frac{11}{16}$ in; width $2\frac{1}{32}$ in; height (body lowered) $2\frac{1}{16}$ in; height (body raised) $3\frac{13}{16}$ in.

Dinky in Argentina

I am always pleased to hear from correspondents overseas and I recently had a letter from Carlos Sanchez Vacca. Mr. Vacca lives in San Luis Province, Argentina, and has been a Dinky Toys collector since 1947. He has an extremely large array of pre-war models, one of the biggest, in fact, of which I have ever heard. He also has numerous current models and thus possesses a very varied collection. With this he holds several large-scale car races 'similar to the ones performed on the real highways of Argentina', as he himself writes. Continuing, Mr. Vacca says, 'Dinky collectors are getting more and more interested every day in these races, especially in San Luis Province and also in other Argentine provinces where they have become known, thanks to our fellow collectors!'

Mr. Vacca has promised to let me have a summary of the rules controlling the races and, when he does, I may be able to refer to them in some future issue.



Dealers who specialise in Meccano spare parts

Listed below are some of the dealers who sell Meccano accessories and spare parts. This is intended to aid enthusiasts—and there are many of them—who constantly require additional spare parts for their Sets. All dealers can, of course, order Meccano spare parts for their customers, but those listed here are among our spare part specialists.

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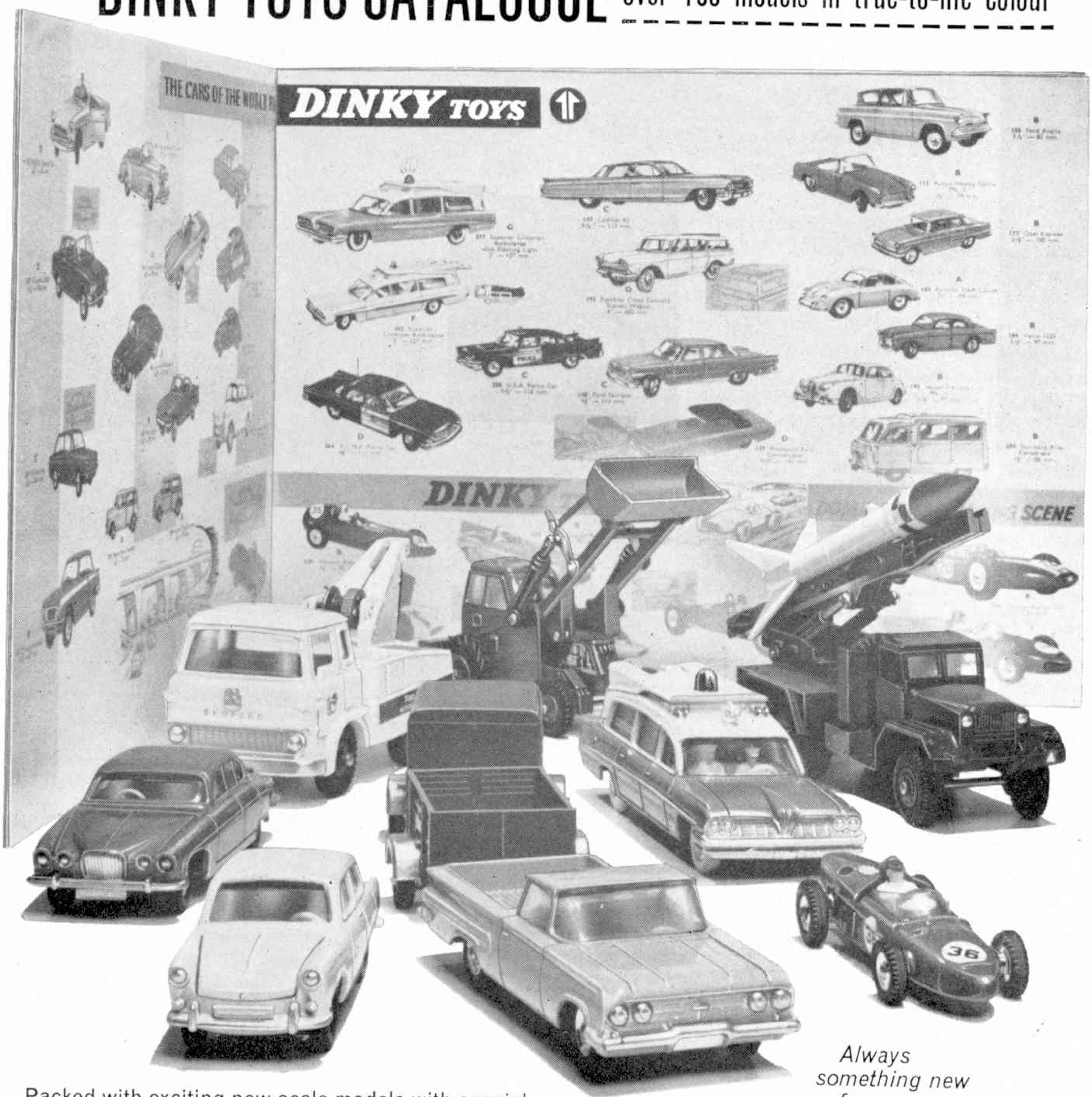

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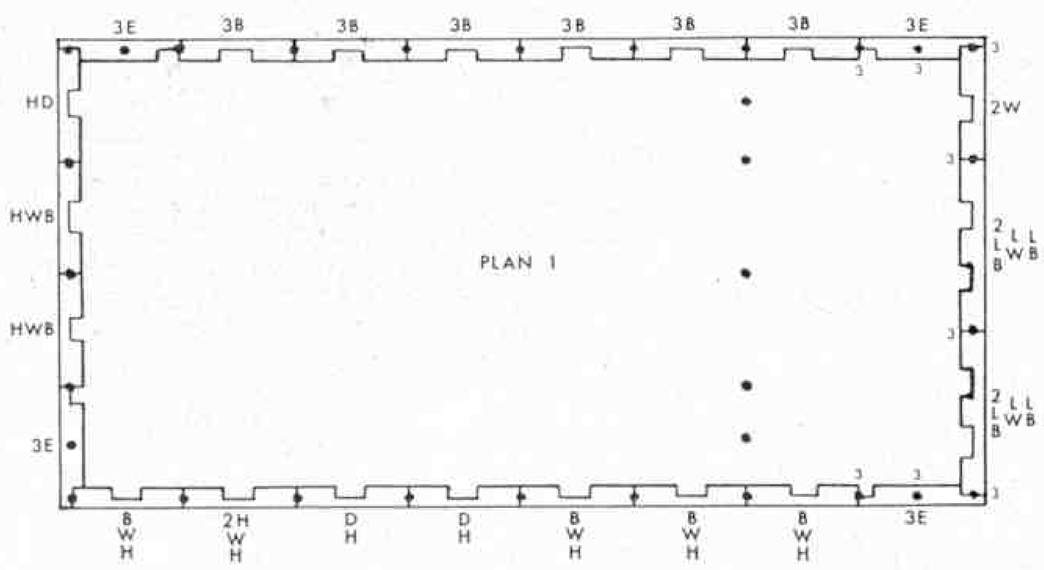
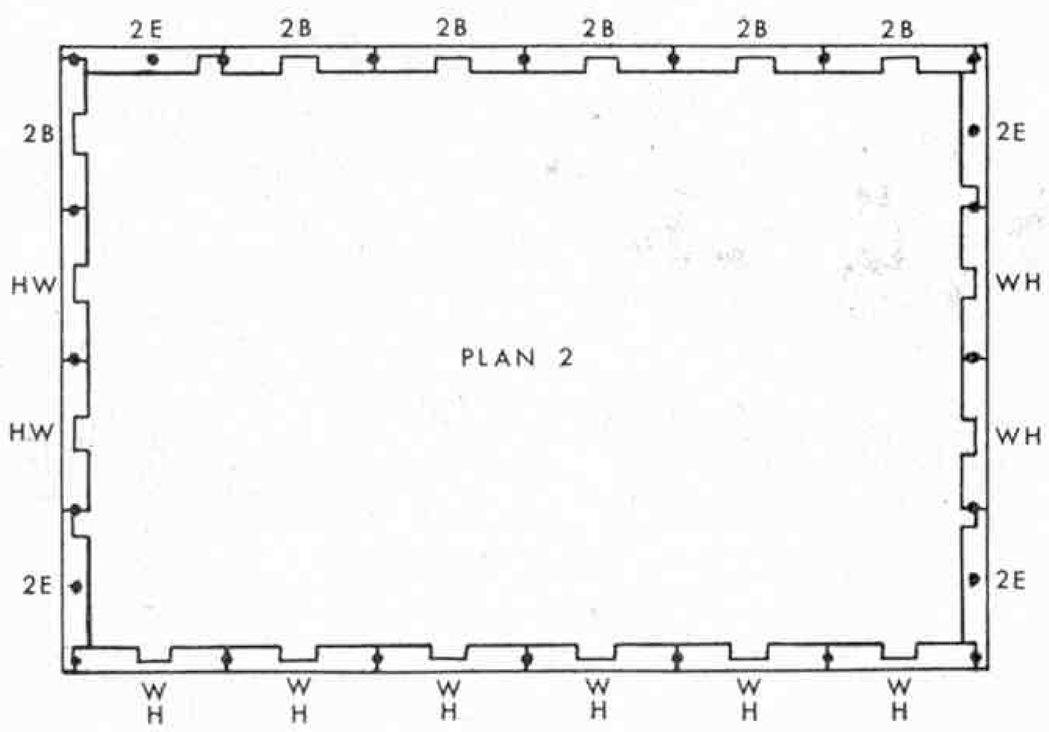
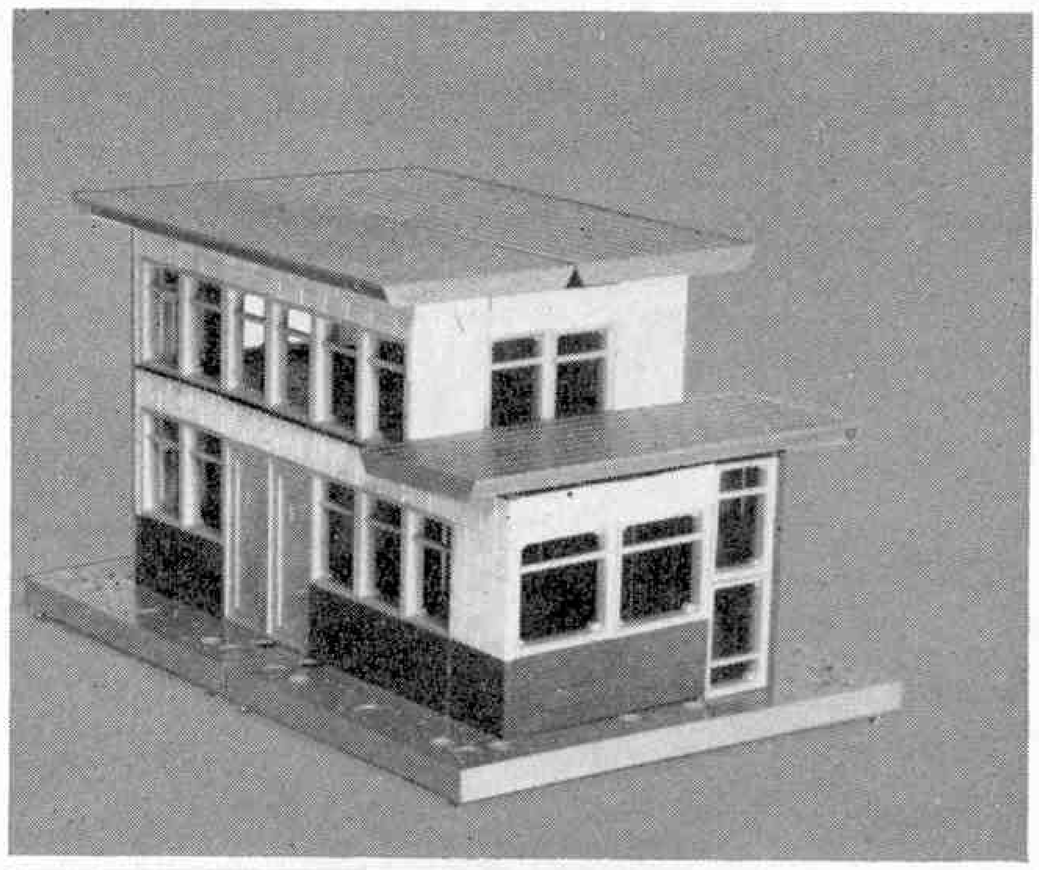
Building an office

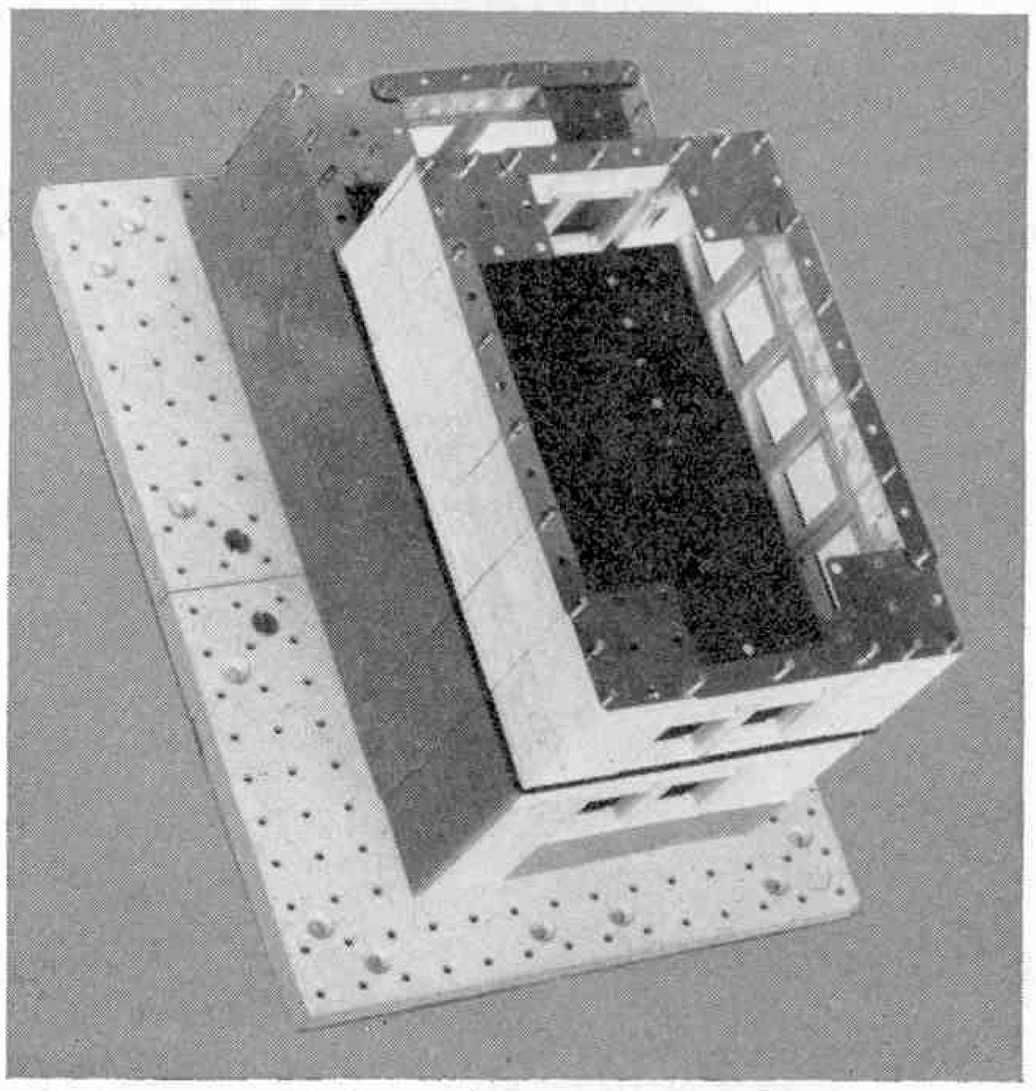
ONE OF THE prime features which distinguishes the modern office block—or, for that matter, the modern house—from its fore-runner is window space. In the buildings of today there often seems to be more glass than brick and the result, I think, vastly improves life.

My model, shown here, is built from Outfit No. 13, and in it I have tried to capture the modern look. Unfortunately, the design of the parts is a limiting factor, but it is still an interesting exercise in Bayko construction. No. 5 Brick Rods are used throughout, except where indicated on Plan 1, when No. 3 Rods are used. Remember to fit the Floor, and the Tie Bars on the single-storey extension, after completing three layers of Bricks. Note also that two Red Half Bricks are used in the front wall to make up one whole brick.







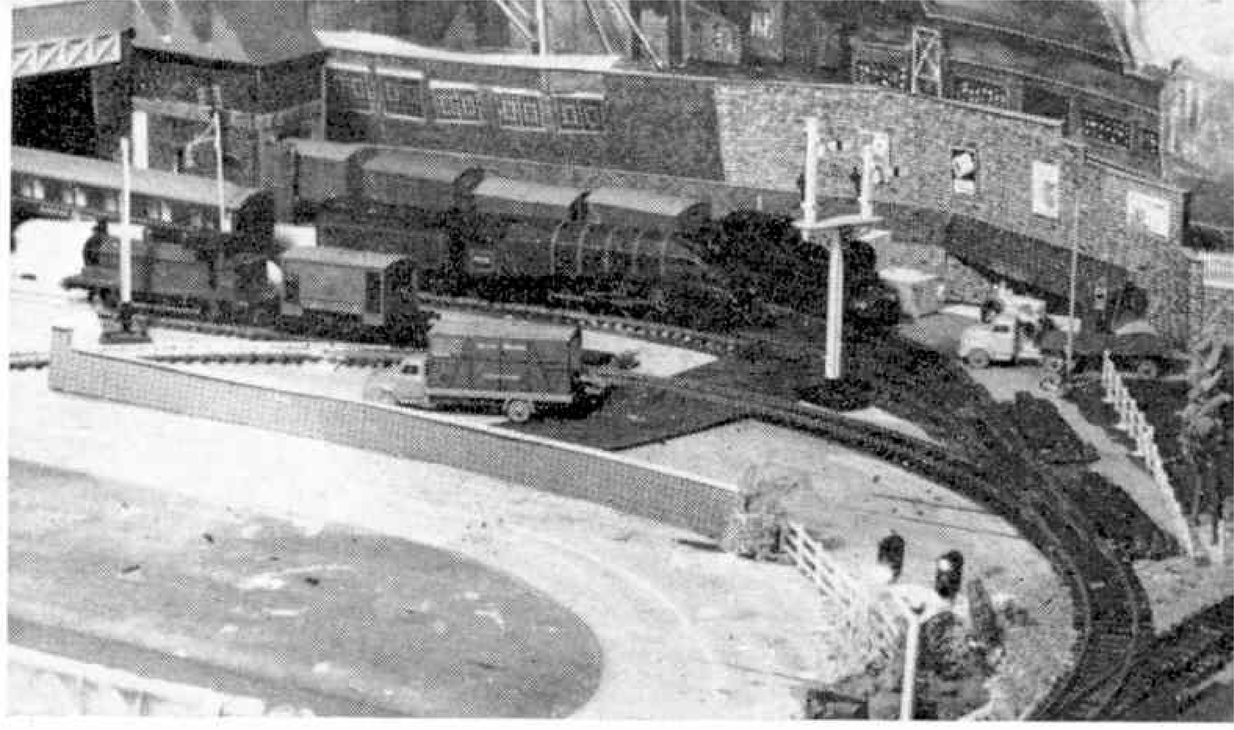


Above: The completed building.

Below: The angled view, with the roof of the building removed, showing the method of construction.

Parts required.—2 Bases; 2 Base Links with Screws; 24 Red Bricks; 12 White Bricks; 8 Red End Bricks; 12 White End Bricks; 2 Red Half Bricks; 20 White Half Bricks; 4 Red Long Bricks; 2 White Long Bricks; 8 No. 3 Brick Rods; 24 No. 5 Brick Rods; 3 Doors; 1 13 by 9 Hole Floor; 19 Glazing Materials (Window); 2 Glazing Material (Large Window); 1 Roof, Type A; 2 Roofs, Type B; 6 Corner Ties; 10 Straight Tie Bars; 19 Windows; 2 Large Windows.

The south end of the passing loop is seen here being used by a Deltic-hauled Pullman train. In the centre an A4 steam loco backs down on to coaches standing in Newborough Junction platform. At the same time empty goods wagons are being hauled to the main sidings by the 0-6-0 Diesel Shunter.



A view of the Port Area. Loaded 'Night Importer' wagons are ready to be pulled from the quayside by an 0-6-2 Tank Loco while an A4 backs on to a sleeping car train in the Port station. The main line southbound track is seen in the bottom corner, while the branch line sweeps round to the left.

L.N. and E.R.

by **S. F. Page**

AMAZING WHAT the influence of one locomotive can achieve! At Christmastime some years ago a Hornby-Dublo 'Golden Fleece' Locomotive was loaned to me: it was the acorn from which grew a sizeable tree, because it determined the region of British Railways which I was to model, and that model grew into the present L.N. and E.R. (Longdon, Newborough and Easthyde Railway) which I have mentioned in previous articles.

The track, which is laid on a rigid baseboard 16 ft by 4 ft, with two supplementary baseboards of 3 ft by 2 ft and 8 ft by 9 in, is a figure of eight turned back upon itself to form the main line. From this, there is a branch line to the Port Area and also a branch which leads to hidden sidings. An inner oval gives access to a large group of sidings, and also to steam and diesel loco depots, and to a private line leading to a cement works located on a river.

One mainline track feature which makes for interesting running is a loop recently introduced beneath a roadway to by-pass the main station. Solenoid-operated points before and after existing station crossover points allow any train not required to call at the station to pass slow trains.

Of the 27 Hornby Points throughout the system, nine are solenoid operated by a similar number of Hornby switches.

The realism of the model trains is enhanced by timetable working, the expresses being hauled by theA4 'Golden Fleece' and 'Deltic' Co-Co diesel electric locos. This provides a number of named trains 'Northumbrian', 'Flying Scotsman' and 'Talisman' together with several daily Pullman trains and a recently introduced 'Night Sleeper', which is only run when the miniature lights of the layout take the place of daylight.

Local passenger services are provided by 0-6-0 Tank Engines hauling suburban stock, and picking up the regular daily milk tanker, as well as horse and cattle wagons, when these are needed.

An extensive range of Hornby goods stock, modern and of the earlier series re-wheeled to run on 2-rail track, provides all classes of goods trains. From the Port Area, the express 'Night Importer' consists of a number of 12-ton Ventilated Vans, Banana Vans, Refrigerator Vans and a Guards Van. Block trains on the regular timetable include cement trains, a new car transporter train made up of a series of Low-Sided Wagons with Lowmac Wagons for commercial vehicles, and fuel trains which comprise an empty Mineral Wagon, a series of fuel tankers, a Mineral Wagon and a Guard's Van. This is the standard assembly for a dangerous load.

Sixteen-ton Mineral Wagons make up regular coal trains, while mixed goods include such stock as 20-ton Tube Wagons, Bogie Brick Wagons, Flat Wagons with containers and Saxa Salt and 20-ton Bulk Salt Wagons. Type 1 Bo-Bo Diesel Electric Locos handle much of this freight movement, while local freight is taken care of by either an 0-6-0 Tank Engine or an 0-6-0 Diesel-Electric Shunter.

Shunting at the main sidings and in the Port Area is all controlled by 0-6-0 Diesel Electric Locos. There are three controllers, one for the main line, one for the inner oval, all sidings and loco depots, and the third for the Port Area, branch line and hidden sidings.

Control of the trains is by Hornby Semaphore Signals and Colour Lights. The colour lights, which are gradually replacing the semaphores, are carefully located to enable the operator to observe from a distance which way the remote controlled points are set.

Scenic work has been built up by generally accepted modelling methods employing hardboard patterns covered with cheap surgical lint, rough side up, painted and worked up to realism with flock and dyed sawdust.

In addition to my own twelve locos of primarily L.N.E.R. or B.R. stock, visiting trains come into the region from time to time. Latest to bring in a 'special' was the 'Cardiff Castle' hauling Western Region coaching stock. Such specials have to be correctly accounted for in the overall timetable governing the layout.

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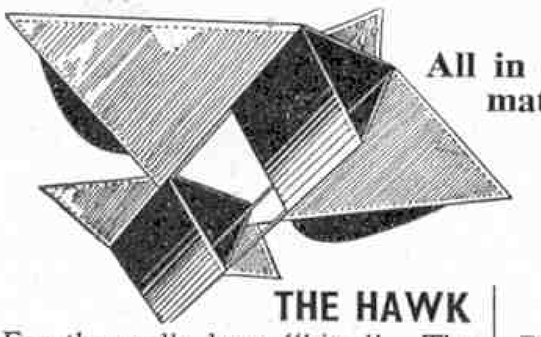

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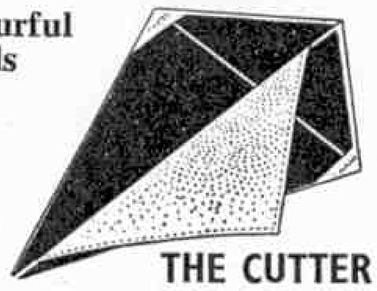

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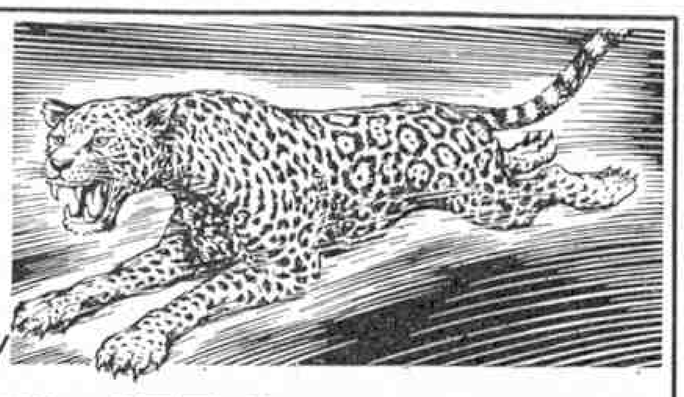

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You may submit as many questions as you like. We will deal with as many as possible each issue.

In a frog's eye

Q. *What is bionics?—S. P., Salford.*

A. A new branch of electronics in which circuits are designed to produce effects similar to the natural abilities of living creatures. The bat's 'radar system' is an example. Another is the frog's ability to detect small, *moving* insects and bigger objects, such as a bird on the wing, while ignoring all stationary objects—including dead insects. Using the frog's eye as a model, scientists have devised an electronic detector which can spot moving targets and ignore all others. From this may develop a new kind of selective radar. Bionic 'thinking machines', working much like the brain and nerve systems of animals and insects, are also likely to result from experiments with 'pattern recognisers' produced from electronic components.

Skyscraper

Q. *Which is the tallest building in the world? 'Mortar Boy', Addiscombe, Surrey.*

A. At present, the Empire State Building in New York, which is 1,248 ft high. But it will be outdone by the twin towers, each 1,350 ft tall, of the new World Trade Centre to be built in Manhattan, about a mile away from the Empire State, by 1970. Atop the 110-storey building will be an observatory from which tourists will have a 45-mile view in every direction.

Mounting mileage

Q. *How many miles are covered every year by people with their own cars, as compared with public transport?—'Queuer', Canterbury.*

A. According to recent Ministry of Transport estimates, private car and motor-cycle travel in 1962 amounted to 103,700 million passenger miles. Rail passenger mileage was 22,800 million, and bus and coach passenger mileage, 42,400 million. Both the number of vehicles used and the mileage covered have multiplied more than two and a half times in the last ten years. On the other hand, public transport mileage has dropped considerably. By 1980, says Professor Buchanan in his report on *Traffic in Towns*, the number of motor-cars in Britain—11 million at present—will have reached 27 million.

Boy wonder

Q. *Who was Frank Reade, the Boy Inventor?—J. McA., Edinburgh.*

A. Frank Reade Jnr. was a fictional character whose exploits were related by Lu Senarens in the *Frank Reade Library*, published in New York in the 1890s. Frank and his father were far ahead of their time; they conceived and built marvellous machines—armoured cars, land-sea vehicles, airships and submarines—in which they travelled all over the world, and even made a trip *From Pole to Pole Through the Centre of the Earth*. They also ventured into space in search of a stray comet, and built a mechanical man. Like Jules Verne's creations, all their machines were driven by steam or electricity; they did not anticipate the petrol-engine.

Message from 1964

Q. *A 'Time Capsule' is being shown at the World's Fair in New York? What exactly is its purpose?—'Just William'. Wednesbury, Staffs.*

A. The Time Capsule is a large metal cylinder containing a collection of films, records and other items which should give archeologists of the distant future a good idea of the world of 1964. It will be buried near a similar capsule which was sunk on the World's Fair site 25 years ago, on the chance that it would be dug up 5,000 years hence. Visitors to the Fair are being invited to inscribe their signatures for inclusion in this year's capsule.

Tailless cat

Q. *How did the Isle of Man come to have a tailless cat?—P. Williams, Stanmore, Middlesex.*

A. Not, as legend has it, because Noah slammed the door on its tail when it was late in entering the Ark. Naturalists give varying explanations; but we know that the so-called Manx cat is one of the oldest breeds in the world, being found as a distinct type in Japan, China, Siam, Malaya, and many parts of Russia. Another theory has it that the breed was introduced into the Isle of Man at the time of the Spanish Armada, when two galleons were wrecked off the coast near Port Erin.

Rooftop parking at Coventry (see Mounting mileage)

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by **F. E. Metcalfe**

STAMPS

Thematic or topical?

A CANADIAN collector wrote recently, asking if I could tell him the difference, if any, between thematic and topical collecting. He said he had noticed, in a British stamp paper, that the former term was always used, but generally in the U.S.A. they talked of topical collecting. when referring to collections of stamps devoted to one particular subject. Well, the terms are synonymous; it's just a question of usage, and, of course, they merely refer to collections where the designs of the stamps all have to do with a single subject. I prefer the term thematic, for as far as the words are used here in Britain (it may be different in the U.S.A.) a collection based on a theme seems nearer the mark than a 'topical collection'.

Mint v used

Another collector wrote recently to say he was very annoyed with stamp dealers. He had been collecting for many years, he said, and added that most of his stamps were from the office mail—so they would not have been very costly. The important point was that he had not differentiated between mint and used stamps. He accepted them in either condition, just as they came his way, and filled up his blanks with mint copies where he was not able to get others from the office.

Came the day when he wanted to sell, and with the proceeds, 'go in for a tip-top camera'. But when he called on two dealers who had sold him odd stamps, they did not want to buy his collection. In each case, they told him they had no use for general collections of mostly ordinary stamps where there was a mixture of mint and used. They did not like stamp edging used for mounting, either. Alas, the camera he was going to buy still remains in the shop, and my correspondent is very annoyed with the two dealers in question. Dealers are, of course, only too pleased to buy stamps they can sell and it is the collectors themselves, in the main, who do not want to buy collections of mint and used mixed. Today, a dealer has no time to break up unimportant collections for stock, but mostly has to sell intact, so I am afraid my correspondent is really blaming the wrong section of the hobby. I am mentioning this letter at some length because the point raised is of considerable importance. If you are only collecting for fun—which means that you are not spending large sums on stamps—then collect what you like, as you like. But if you take the hobby seriously, and cannot afford to disregard what you spend on stamps, then remember that sets of stamps, containing mint and used, unless they include some good items, are very difficult to dispose of.

A real beauty

It must be admitted that for sheer beauty, the stamps of Austria (1) get my vote every time; for diversity of subjects, the U.S.A. probably wins the prize. True, some of the designs on the special issues are not so hot, but who can resist the stamp I am asking the editor to illustrate (4). Isn't it a beauty? If this stamp does not top the poll in the yearly American contest to find the country's most beautiful stamp, then there must have been some I have not seen, and I think I have seen them all.

The tip of the month

South Africa offers some fascinating issues which are simply asking to be collected. There is not space to go into much detail, but, taking the current issue, there is more philatelic fun and games to be got out of it than any other set at present on sale. You need to have a sharp pair of eyes to spot the watermark differences which exist, but they are certainly worth looking for. For the time being I will only refer to the 1961 issue. When the stamps first appeared they had the 'Arms' types watermark. Later, the 1c, 2c, 2½cm 3c, 5c, 7½c, 10c and 50c values appeared without watermark. Now there has been another change. The new watermark consists of a triangle with the letters S.A.R. enclosed, and at the time of writing the 1c and 2½c values have appeared thus. No doubt other values will be similarly changed. So my tip is, go after these stamps now, particularly mint. (3)

Wild life

I have already referred to the popularity of topical collecting among all classes of philatelists and you may realise that the various subjects dealt with vary slightly in appeal from country to country. But wild life is very near the top of the poll in most places, so naturally the magnificent set of wild animals issued by the Indian Post Office last October is still in great demand. Mr. Kooka, of Bombay, kindly sent a first day cover at the time, and I must admit I was a little surprised that, for instance, there were lions in India as well as in Africa. (2) I remember, when I was living in Patagonia people used to talk about killing lions, but then they were really referring only to pumas, a very different animal, But India has the real thing, although I imagine the lions there must be very scarce. It is good to see efforts being made to protect such precious creatures. It looks as though the days are passed when individuals strutted round imagining they were great fellows because, from a safe distance, they had killed some animal so much more handsone than themselves. This Indian animal set is worth a place in any collector's album.

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Readers Sales and Wants

If you have anything to sell or wish to buy anything, take advantage of the service offered by a small advertisement in these columns.

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WANTS

• Pre-war Railway Models, Locomotives, Rolling Stock. Any make. Repair considered. Butler-Edwards, 1 Chesham Crescent, London, S.E.20.

• Collector requires English, American, Canadian Coins and Tokens; also Maundy Coins. Following paid for cased sets: 1911, £10; 1927, £25; 1937, £10; 1950, £5; 1951, £10; 1953, £5; £100 for any 1887, 1893, 1902, 1911, 1927, 1937 gold sets. D. H. Woodberry, 104 Risca Road, Rogerstone, Mon.

• Wanted—Obsolete Aeroplanes, Dinky or similar, not plastic. List and prices please. T. F. M. Pryor, Lannock Manor, Hitchin, Herts.

• Exchange pre-war Dinky Toy Cars, Commercial Vehicles in excellent condition, for pre-war Dinky Toy Army Equipment, Aircraft. P. A. Hodges (AE), 26 Kings Road, Southsea, Hants.

• "0" Gauge Hornby Vans, Coaches, "M.M.s" 1920 to 1940, complete years. Peakson, 86 Dovedale Road, Erdington, Birmingham 23.

• Badly wanted by parent whose memory fails him: pre-war supermodel instructions either in leaflets or "M.M.s", especially for Baltic Tank and other Locos, Traction Engine, Railway Breakdown Crane, and Block Setting and other Cranes. Stewart, 2 The Mount, Oatlands Drive, Weybridge, Surrey.

• British or Overseas express coach service, coach tour and excursion pamphlets, brochures, etc., except those referring to services from London. Will give in exchange equal number of similar publications advertising London terminating services. M. R. Chitty, 45 Brinkburn Gardens, Edgware, Middlesex.

• English pre-war super models leaflets 1-37, especially Giant Block Setting Crane. Condition not important if complete. State price and particulars. Hilton, 2 Oldknow Road, Marple, Ches.

• Pre-war "0" gauge Steam, Electric, Clockwork Locomotives, Bogie Rolling Stock, etc. Details and price required to: Puttock, 57 Hobleythick Lane, Westcliff-on-Sea, Essex.

• Pre-war gauge "0" Locomotives, Bogie Coaches, Rolling Stock. Details and prices required. Duroure, 27 Great Eastern Road, Hockley, Essex.

• Exchange or buy all old English Dinky Toys. Write: Monsieur Moreaux Jean-Jacques, 6 rue Tanton-Béchefer, 6 Charleville (Ardennes), France.

• Dinky No. 283, B.O.A.C. Coach, any condition. 37 York Road, Bury St. Edmunds, Suffolk.

• S.M.L. Giant Dragline or copy, parts 119, 127, 129, 120A, 67. A. Hindmarch, 2 Archer Street, Off Portland Street, Lincoln.

• Moor Park Bus Co. require Dinky H.E.C., D.D.'s and central entrance D.D.'s; your price paid. M. P. Curley, 41 Moor Park Road, Hereford.

• "M.M.s", Jan. 1950-December 1962 inclusive; obsolete M. spare parts. Please send list. S. Freeman, Helmsdale, Green Lane, Stanmore, Middx.

• Wanted: Obsolete Dinky Aircraft, especially Flying Boats; paintwork immaterial if bodies sound. Prices, etc, to: D. Moore, 18 St. Pauls Road, Portsmouth, Hants.

• Toy American Soldiers: Metal, stamped "England". Paintwork immaterial. Saunders, 46A Hornsey High Street, London, N.8.

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SALES

• Stamps, used, Poland, Czech, other items. State wants. Advertiser, 15 Queenshill Ave., Leeds 17.

• Meccano Magazines for 1929 and February to December 1930, in excellent condition. What offers? Box 1001, c/o "Meccano Magazine".

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• "M.M.s", January - November 1963, 7/6; "Understanding Science", numbers 1-15 and binder, £1. 80 Haymill Road, Slough, Bucks. Phone Burnham 2129.

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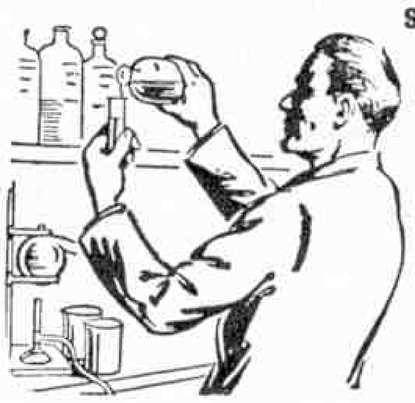

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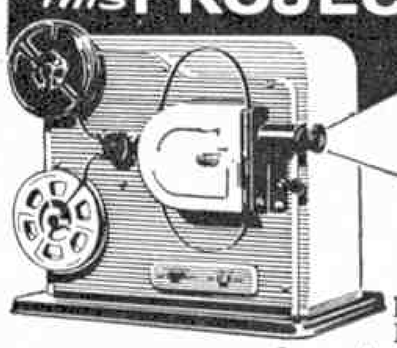

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Around the SOCIETIES

REGIONAL NOTES

Keswick (Wembley) HRC

THE CLUB has been fortunate in having on loan for a period the 95 years old 3 in gauge locomotive 'Topsy'. It was on view in the Clubroom for three days and a large number of railway enthusiasts came to see this masterpiece of engineering. It was built by Mr. W. Williams, at the Boston Lodge Works of the Festiniog Railway, for the Spooner Family and was modelled on the locos working on that railway at the time—1869. The loco used to run on a track laid at the Spooner residence at Bron-y-Garth which overlooked the harbour of Portmadoc. It remained in the family for some years and eventually passed into the hands of the Knight family of Shrewsbury. Learning of the engine's historic association, and the Festiniog Railway's revival, they have returned it to Portmadoc for exhibition.

Merit Medallions: More Awards

MORE MERIT Medallions have been awarded during the past few weeks to members of Meccano Clubs, (writes the secretary of the Meccano Guild), for outstanding work on behalf of the Guild. One goes to Michael Kent, aged 14, secretary of Shebbear College, Beaworthy Meccano Club. Two further winners are 16-years old Alan Crawford and 14-years old John Nicholson, both of the Consett Meccano Club, Durham. Alan is a motor mechanic apprentice who only left school six months ago; John is a pupil of Consett Grammar School and would like to be an electrician. The club has a splendid record of activity under its leader, Mr. John R. Goodrum.

Further medallions have been awarded recently to two members of the City of Worcester Undenominational School Meccano Club. They are Brian Hope and Alan Williams, and the medals were presented to them on the last day of term, March 25.

Finally, S. Kennedy of the Christchurch (New Zealand) Meccano Club has also been nominated for a Merit Medallion.

Christchurch (New Zealand) Meccano Club

TO BRING our activities up-to-date we start with last November, the outstanding feature of which was a Meccano 'car rally'. This was limited to saloon cars only, although members who wished to do so could remove hoods for the speed section and hill climb. The competition produced a number of well-built cars, some with direct drive and some with differential. The speed section was divided into clockwork and electrically-driven cars and some very fast times were recorded.

On December 13 last break-up night was celebrated when 75 members and parents attended. There were games and competitions and a display of working models. Cups and certificates were presented and Sidney Kennedy won both the open cup and the award for the best junior. Supper was supplied by mothers of the members.

Welshpool & Llanfair L.R.P. Co.

THE SEASON for this railway commenced on Good Friday, March 27, and will continue until the beginning of October. Trains will run at weekends, Bank Holidays and August Bank Holiday week with a service of one morning and two afternoon trains. The running time between Llanfair Caereinion and Castle Caereinion is being cut to half an hour, and is mainly due to improvements carried out on the track by members. It is hoped to extend the service as far as Sylfaen on July 25, the date of the centenary of the Cambrian Railways. The company still requires more members to enable improvements to be carried out, especially the opening of the length of line to the new terminus which is to be established at Raven Square, Welshpool. Working parties attend the railway from all parts of the country and details of these, as well as information about membership, may be obtained from Mr. A. M. Barnes of 69 Woodvale, London, S.W.23.

Luton & District Miniature R.C.

THE CLUB layout is ideally very simple in design, and is built to a very high standard of workmanship. It was completed in time to be exhibited at the Biggleswade Model Railway Society's exhibition late last year. The layout won first prize at the exhibition, although it was competing with much larger and more complicated layouts. It consists of three sections, two of which form the actual track system of a branch terminus. The third section contains a turntable and traverser which is capable of storing and turning seven trains. Plans are now well advanced for the next sections, which will be placed between the present layout and the turntable. In this way an exhibit of varying length will be available.

It is intended to arrange a few short outings during the summer season, and members will also have the chance of taking part in the many visits to locomotive depots organised by the local rail enthusiasts' club—the South Bedfordshire Locomotive Club. A joint branch line rail tour is organised each year, and it is hoped to announce the 1964 details very shortly. In the meantime, details of the tours organised by the South Bedfordshire Locomotive

Club can be obtained from Mr. B. C. Lockey, of 107 Carlton Crescent, Luton, Beds.

The Model Railway Club

CLUB FIXTURES for May:—May 7 Track Night (Great Western Group); 14, Track Night (London, Midland and Scottish Group); 21, Annual General Meeting; 28, Track Night (Gauge 1 Group). Meetings take place at the club's headquarters, Keen House, Calshot Street, King's Cross, London, N.1. Inquiries to the Hon. Secretary, Mr. D. A. Boreham, of 35 Mandeville Road, Northolt, Middlesex.

The Southern Society

THE SOCIETY fixtures for May are as follows: May 23, a tour of the railways of the Isle of Wight, including a visit to Ryde Motive Power Depot, and Works. All inquiries regarding visits should be addressed to Mr. D. A. Guiver, of 46 Birchwood Avenue, Wallington, Surrey. Visitors and new members are always welcome to attend the clubroom at Streatham Common Station on any of the last three Mondays in the month. Those interested should address their inquiries to the secretary, Mr. R. Merry-Price, of 10 Girdwood Road, Southfields, London, SW18.

East Ham & District M.R.C.

CLUB ACTIVITIES for the month are:—May 4, Practical Night; 11, Track Night; 25, Annual General Meeting. Meetings are held in St. Gabriel's Church Hall, Aldersbrook Road, E.11 each Monday at 7.30 pm. Further details from the Secretary, Mr. G. R. Lloyd of 32a Goldsmith Road, Leyton, London, E.10.

Chester Model Railway Club

THIS CLUB will hold an exhibition in the clubroom, Northgate Station, from Saturday, May 23 to May 30. Times of opening will be 10 am to 10 pm on both Saturdays, and 6.30 pm to 10 pm on weekdays. The exhibition is closed on Sunday, May 24. Admission 1s adults, 6d children. Further details from the Secretary. Mr. A. T. Budd, of 10 Newton Park View, Chester.

Birmingham Locomotive Club

THE OUTDOOR programme for May is:—May 2 or 3, an industrial visit, to be arranged later. May 16-18, Scottish tour, details of which can be obtained, together with details of other visits and club activities, from the hon. secretary, Mr. E. S. Tonks, of 87, Sunnymead Road, South Yardley, Birmingham 26.

Andover & District M.E.S.

A TRACTION engine rally is once again to be sponsored by the above society, and is to take place at Finkley Manor Farm, Andover, on June 20, 1964. The main event is due to start at 12 noon, as in previous years. Previously the rally has been held in May.

The usual ring events will take place from 2 p.m. onwards, and a miniature railway built to 7¼ in gauge will be on show. There will also be a model engineering display, for which the society hopes to receive models.

The Northern Railfans' Club

THE VISITS organised for May will begin on the 23rd when Derby Locomotive Works and Motive Power Depot will be the venue. This will be followed by a visit to Crewe Locomotive Works and Motive Power Depot, on May 24, and one of the South Midlands Motive Power Depots, on May 31. Inquiries to Mr. C. B. Brown (X) of 17 Glen View Street, Cornholme, Todmorden, Lancs.

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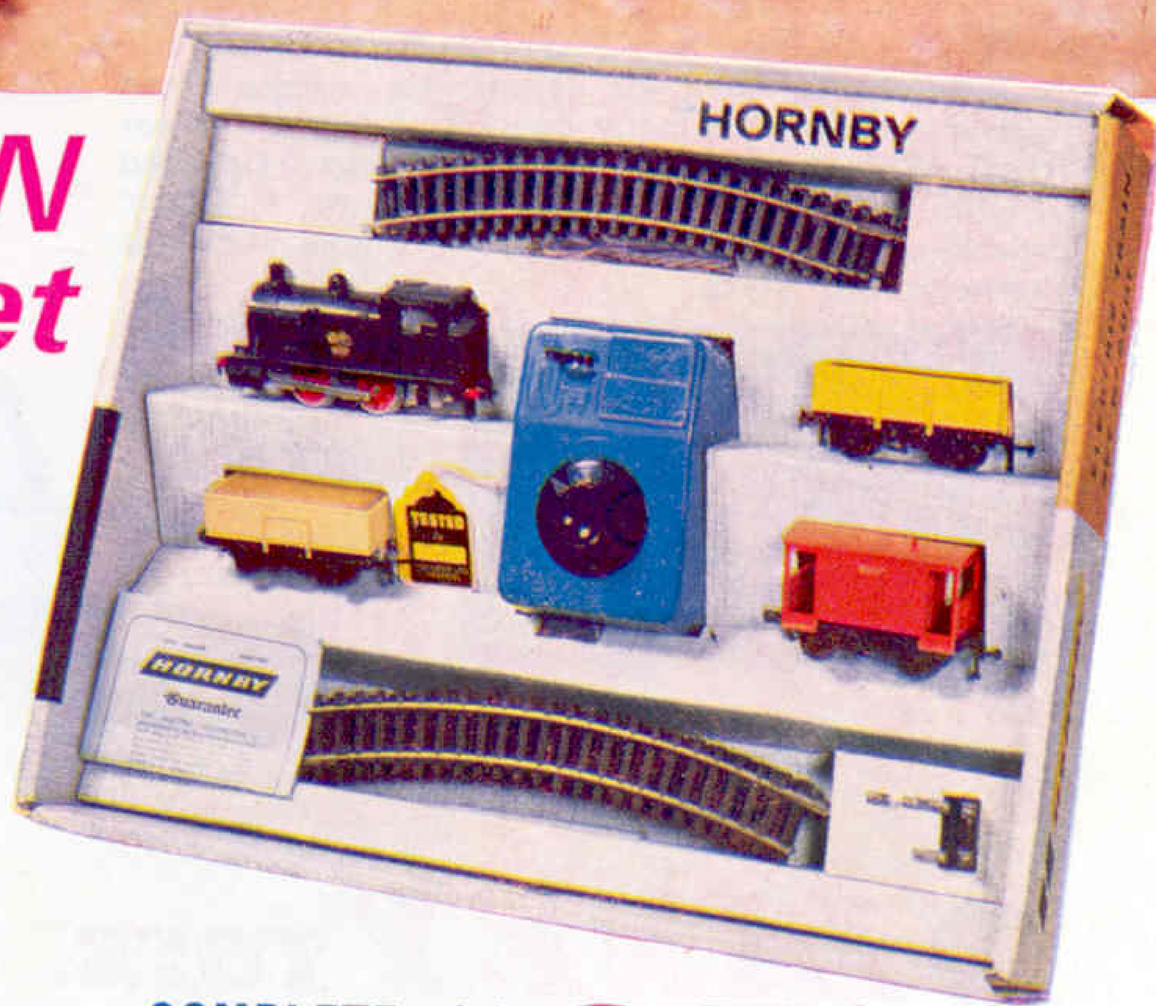

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● Prestomatic steering (finger-tip pressure on either side automatically turns Viva in that direction) ● Opening bonnet ● Opening boot ● Detailed 4-cylinder engine ● 4-wheel suspension ● 'Glass' windows & windscreen ● Steering wheel ● Plastic 'upholstered' seats

You can be the first in your road to drive this wonderful 4-seater saloon. Go to your Dinky Showroom and get the Vauxhall Viva!
MODEL: 136
LENGTH $3\frac{11}{16}$"
U.K. PRICE ONLY **4/11**

AND THE NEW BEDFORD TK TIPPER TRUCK

FEATURES INCLUDE
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