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Photography—(cont. from page 357)

folding hood which, when opened, projects from the back of the camera.

In addition to the cameras we have mentioned there is also the "reflex" type, but this will be considered separately in a later article.

View Finders

In ordinary box or folding hand cameras the view that will appear on the plate or film is seen by means of a "view finder."

The most common type of finder consists of a tiny lens which throws on to a mirror a miniature reproduction of the view. This type of finder is not absolutely accurate, and if a certain object which it is desired to include in the photograph is seen to come quite close up to the edge of the finder image, it is not safe to assume that this will appear as desired on the plate. In other words, it is wise to allow for a small margin of error between the finder and the view that will appear on the plate or film. In order to use this type of finder the camera has to be held at approximately waist level.

Another common finder is the "direct vision" type. This is fixed in the centre of the top of the camera and consists of a small lens, proportionate in size to the plate, with a small eyepiece in front of it. By holding the camera at eye-level and looking through the eyepiece the view to be photographed is seen.

In making the exposure it is essential that the camera should be held perfectly steady. To the average person this is almost an impossibility for more than about 1/15 second, and for longer exposures it is necessary to use a tripod or to place the camera on a wall or other firm object. Another important point is to press the trigger gently and steadily until the shutter is released, thus avoiding any jerking of the camera. Many beginners are inclined to press the trigger of the shutter very rapidly, apparently with the idea of increasing the speed of the shutter, but this idea is, of course, erroneous. The speed at which the trigger is moved has no effect whatever upon the speed of the shutter.

Loading the Camera

If roll films are used the camera may be loaded and unloaded in daylight, and the advantages of this are obvious. It should be remembered, however, that although these cameras are "daylight loading," it is not advisable to carry out the process in direct sunlight. A shady place should be chosen for the purpose, or at least the camera should be screened by the body.

The actual method of loading the camera varies with different makes, but the booklet given with each camera gives full instructions for this operation. Care should be taken not to unwind the film wrapping further than is necessary to get a good grip on the winding spool, otherwise there is a danger of exposing some of the film itself before the back of the camera is in position. The film also must not be allowed to become slack on the spool or light may creep in at the edges. Still another point is that

the film must be fitted into the camera absolutely straight, for if this is not done the edge of the film binds on the rim of the spool, causing the film to crumple badly at the edge. One other piece of advice must be given at this stage—always

Where the Fruit Grows

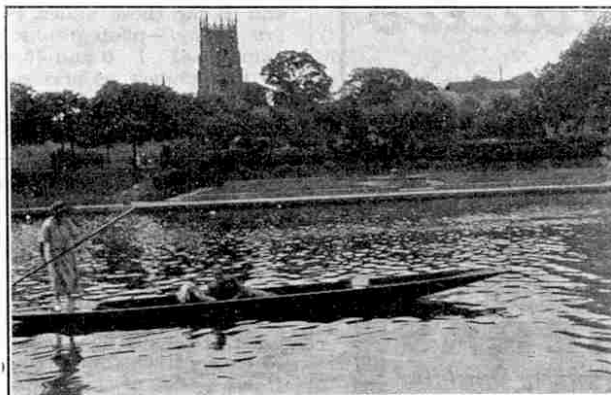


Photo by]

[B. Bentley

A reader's snap of a River Scene at Evesham, Warwickshire

change your plate or film immediately the photograph has been taken. If this is not done at once there is always a great danger that it will be forgotten entirely, with the result that the photographer has the extremely aggravating experience of taking two photographs on the same plate or film!

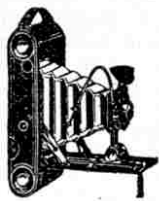
Seventeenth Photo Contest

At this time of the year we are all suffering more or less from "holiday fever," and are thinking of the happy times we hope to have before long at the seaside, in the country or elsewhere. Happiness and holidays must go together, for unless a holiday is really happy it is a dismal failure. At the same time we all have different ideas of holiday happiness and what is a delight to one may be dull and uninteresting to another. However, it is always a pleasure to see others enjoy themselves in their own particular way.

The majority of our readers will be scattered far and wide before very long and we want them to capture, by means of their cameras, some particularly happy incident of their holidays, and enter these photographs for our Seventeenth Photo Contest, the subject of which is: "A HAPPY HOLIDAY SCENE."

In judging the entries for this contest we shall pay regard first and foremost to the competitor's success or otherwise in giving us a picture of holiday happiness. The competitor who succeeds in doing this, even though his photograph may be technically poor, will stand a better chance than one who sends in a technically perfect photograph but fails to depict happiness. In short, the prize-winning photographs will be just those of the kind that we turn to again and again during the long winter months, and which give us

(Continued on page 360)



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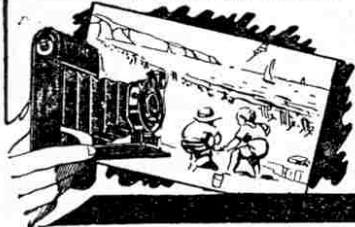
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Seventeenth Photo Contest—

(Continued from page 359)

keen pleasure as our minds flash back to the day on which the snap was taken.

Prints may be of any size and made by any process and the work may be done by the competitor himself or by a photographic dealer. In the event of a tie for a prize preference will be given to prints that have been made by the competitor himself, and therefore every entrant must state on the back of his print by whom it has been made. In addition each print submitted must bear the name, address and age of the competitor clearly written.

The competition will be divided into two sections—A for competitors of 16 and over and B for those under 16. Four prizes are offered—photographic goods to the value of £1 1 0 and 10/6, to be chosen by the winners, as first and second prizes respectively in each section.

Closing date 31st July (Overseas, 30th November).

Extra Prizes

We are glad to be able to announce that Messrs. Gevaert Ltd., are repeating this month their offer of additional prizes. As was the case last month, Messrs. Gevaert Ltd. offer an additional prize of photographic goods to the value of 5/-, to be selected from their list of products, to each of the four prize winners in the Home Section of this contest, on condition either that *the negatives have been made on Gevaert Roll Films or Gevaert Plates or that the prints have been made on one of the Gevaert papers.* Competitors who wish to try for these additional prizes must send in with their entry the label from the packet of Gevaert Films, Plates or Papers used by them, and also the name and address of the dealer from whom the material was obtained.

This month we are pleased to be able to announce a further generous offer. Messrs. Amalgamated Photographic Manufacturers Ltd., whose advertisements in the "M.M." are now familiar to our readers, offer the handsome prize of one of their "Altrex" folding film cameras, value £2/10/-, for the best entry submitted in the Home Section of this competition, on condition that the negative was taken on Rajar Roll Film and the print made on Paget Self-Toning Paper. It will thus be seen that this camera may be won by a competitor in either class A or class B. Competitors who intend to try for this camera must state their intention at the time of sending in their entry, and must enclose the carton in which the film was supplied and the envelope in which the paper was packed, together with the name and address of the dealer from whom the material was obtained.

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Results of

Fourteenth Photo Contest

There was a very large entry for this competition and generally speaking the standard of work was excellent. It proved no easy matter to sift the photographs and decide on the four prize-winners. An interesting feature of the contest was that many of the finest efforts were produced by small and inexpensive box and folding cameras, and in one case a nature study snapshot taken with a home-made camera brought a young reader close to the winning-post.

The awards are as follows:—

Section A (14 and over)—First Prize (photographic goods value £1/1/-), D. F. Mackay (Stockport); Second Prize (photo goods value 10/6), Edith A. Sloane (Liverpool). Section B (under 14)—First Prize (Photographic goods value £1/1/-), Denis F. E. Nash, (Sutton, Surrey); Second Prize (Photographic goods value 10/6), George Nicholl (Farnham, Surrey).

Useful Cameras

Messrs. Amalgamated Photographic Manufacturers Ltd. (Soho Sq., London, W.1.), have sent us a well-illustrated catalogue of their cameras and photo materials. A good example of value is provided by the "APRM" box camera for roll films sold at the remarkably low price of 13/6, which will be found a very useful instrument for the beginner. Among folding film cameras the "Altrex" calls for particular notice on account of its sound value and also because it is the instrument offered by the makers as an additional prize in our Seventeenth Photo Contest announced this month. The "Altrex" takes pictures 2¼ in. by 3¼ in., and its capacity is six exposures without reloading. The shutter gives speeds of 1/25, 1/50 and 1/100 sec., and at the price of £2/10/- the camera must be considered first-rate value. There are also listed numerous types of folding plate cameras, focal plane cameras particularly suitable for the photography of rapidly-moving objects, and photographic accessories of all kinds.

The plates and roll films produced by the A. P. M. include the well-known "Marion" and "Paget" plates, and the very popular "Rajar" film packs and roll films. Great claims are made for Rajar films on the ground of high speed and there is no doubt that a photographer who uses these films is employing material of the highest possible quality. Those of our readers who are interested should send a postcard to the firm for the "Rajar" booklet and the 64-page book "Sunshine Pictures," both of which are sent free to any reader mentioning the "M.M."

Loco Trials—(continued from page 351)

So many considerations govern the working of modern locos, that it is probably impossible to estimate with accuracy the relative economy of Pacifics and Castles. For instance, the smaller fuel consumption of the G.W. loco may be neutralised in the long run by the greater cost of up-keep of a boiler working at the high pressure of 225 lbs. per sq. inch. The trials may have contributed to the solution of such problems, but such highly technical details are for the consideration of the respective engineers.

As far as the general public were concerned, the trials were entirely in the nature of a sporting event, and not for many years have locomotive affairs been given so much prominence. At some points and terminals of both routes concerned, policemen were required to keep enthusiastic observers under control.

In our opinion chief honours must be awarded to the drivers and firemen who so loyally and successfully upheld the tradition of their respective companies! L.N.E.R. Pacific No. 4474 was in charge of Driver A. Pibwalth with Fireman E. Birkwood. G.W. No. 4074 "Caldicot Castle," Driver E. Rowe, with Fireman H. Cook. The pilotman on the L.N.E.R. loco was Driver Manning of the G.W.R. and the pilotman on the G.W.R. loco on the L.N.E.R. line was Driver Day.

Lives of Famous Engineers—*(Continued from page 327)*

Eastern” also caused him great disappointment and an enormous amount of worry. He fought his way through all these difficulties with unabated energy, but his exertions left him broken in health. On the morning of 5th September 1859 Brunel was on board the “*Great Eastern*” superintending some unfinished work. Towards mid-day he felt unwell and returned home, when it became evident that he had been attacked with paralysis. For a few days it seemed possible that he might recover, but on 15th September he gradually sank and died.

A Splendid Tribute

On 8th November 1859, at the first meeting of the Institution of Civil Engineers after the deaths of Brunel and Robert Stephenson, Mr. Joseph Locke, M.P., the President, paid the following fine tribute to Brunel:—

“I cannot permit the occasion of opening a new session to pass without alluding to the irreparable loss which the Institution has sustained by the death, during the recess, of its two most honoured and distinguished members.

“In the midst of difficulties of no ordinary kind, with an ardour rarely equalled, and an application both of body and mind almost beyond the limit of physical endurance, in the full pursuit of a great and cherished idea, Brunel was suddenly struck down, before he had accomplished the task which his daring genius had set before him.

“Following in the footsteps of his distinguished parent, Sir Isambard Brunel, his early career, even from its commencement, was remarkable for originality in the conception of the works confided to him. As his experience increased, his confidence in his own powers augmented; and the Great Western Railway, with its broad-gauge line, colossal engines, large carriages, and bold designs of every description, was carried onward, and ultimately embraced a wide district of the country.

“The same feeling induced, in steam navigation, the successive construction of the “*Great Western*” steamer, the largest vessel of the time, until superseded by the “*Great Britain*,” which was in its turn eclipsed by the “*Great Eastern*,” the most gigantic experiment of the age.

“The great ship was Brunel’s peculiar child; he applied himself to it in a manner which could not fail to command respect; and, if he did not live to see its final and successful completion, he saw enough, in his later hours, to sustain him in the belief that his idea would ultimately become a triumphant reality.”

NEXT MONTH:—**JOSEPH BRAMAH AND THE HYDRAULIC PRESS****Electricity—** *Continued from page 333)*

could have got there by accident, and little doubt was felt that they had been inserted on purpose by some ill-disposed person. Again matters were put right, and all went well until nearly 1,200 miles had been laid, and then the cable broke and had to be abandoned after nine days of unsuccessful grappling for it. The

*(Continued foot of next column)***The Italian Navy—***(cont. from page 355)*

scouts. Eight 4.7 in. guns are mounted in pairs—one on the forecastle, a second between the funnels, a third amidships, and a fourth at the stern. All are mounted on the centre line and each pair revolves on a common turntable, although the individual guns can be elevated independently.

Each gun is protected by a separate shield, which eliminates interference in

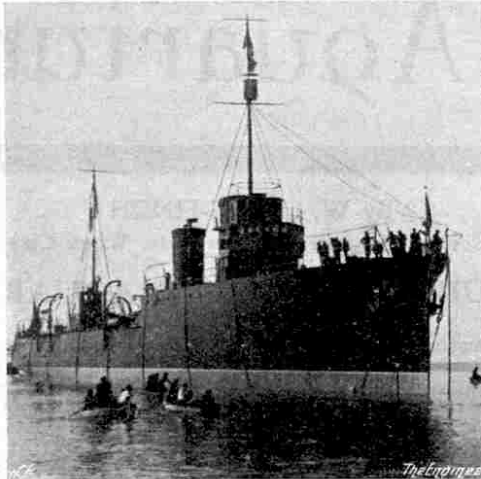


Photo courtesy] **The “Panther”** [“The Engineer”

loading and working. The guns are 45 calibres in length and there are in addition two 3 in. anti-aircraft guns.

In the matter of torpedo tubes, the “*Lion*” carries two triple 18 in. tubes, and the “*Tiger*” and “*Panther*” each have two double 21 in. tubes.

Each of the three vessels is capable of carrying 60 mines, so that although of comparatively small displacement when compared with vessels of larger types, the new scouts are very formidably armed and their speed will, no doubt, render them of great service for the purpose for which they have been designed.

“*Great Eastern*” then had to return and report failure.

The loss on the cable amounted to £600,000, but in spite of this the promoters were as determined as ever that the cable should be laid. In the next year the Atlantic Telegraph Company was reconstituted as the Anglo-American Telegraph Company, and sufficient cable was manufactured by the Telegraph Construction and Maintenance Company to span the Atlantic and also to complete the 1865 cable if this could be recovered. This company undertook to make and lay the new cable for half a million pounds, and this sum was to be increased to £600,000 if the cable was successful and to £737,000 if the 1865 cable could be picked up and completed. Half this sum was guaranteed by Sir John Pender, one of the most prominent commercial pioneers of British cables. Sir John was one of the 350 holders of £1,000 shares in the 1857 cable scheme, and throughout his life he greatly assisted cable enterprises in all parts of the world. At the time of his death in 1896 he was in control of cable companies having a capital of fifteen millions and owning nearly 74,000 miles of line.

Final Triumph

The “*Great Eastern*” was again chosen

for the task, and the ship left the Irish coast on 13th July 1866 and arrived at Trinity Bay, Newfoundland, a fortnight later, having encountered practically no trouble at all. On 28th July the cable was landed amidst remarkable scenes of enthusiasm. The following extract from the diary of the engineer Sir Daniel Gooch gives us some idea of the landing:—

“Is it wrong that I should have felt as though my heart would burst when that end of our long line touched the shore amid the booming of cannon, the wild, half-mad cheering and shouts of the men? . . . I am given a never-dying thought; that I aided in laying the Atlantic cable. . . . The old cable hands seemed as though they could eat the end; one man actually put it into his mouth and sucked it. They held it up and danced round it, cheering at the top of their voices. It was a strange sight, nay, a sight that filled our eyes with tears. . . . I did cheer, but I could better have silently cried.”

The “*Great Eastern*” now returned eastward to set about recovering the 1865 cable. This proved to be a matter of great difficulty. Time after time the cable was hooked with the grapnel, only to be lost again almost immediately. On one occasion it was brought to the surface, but in spite of all efforts it slipped away again before it could be secured. After a fortnight of strenuous work success was achieved, the cable was secured and spliced, and a month later was safely brought ashore.

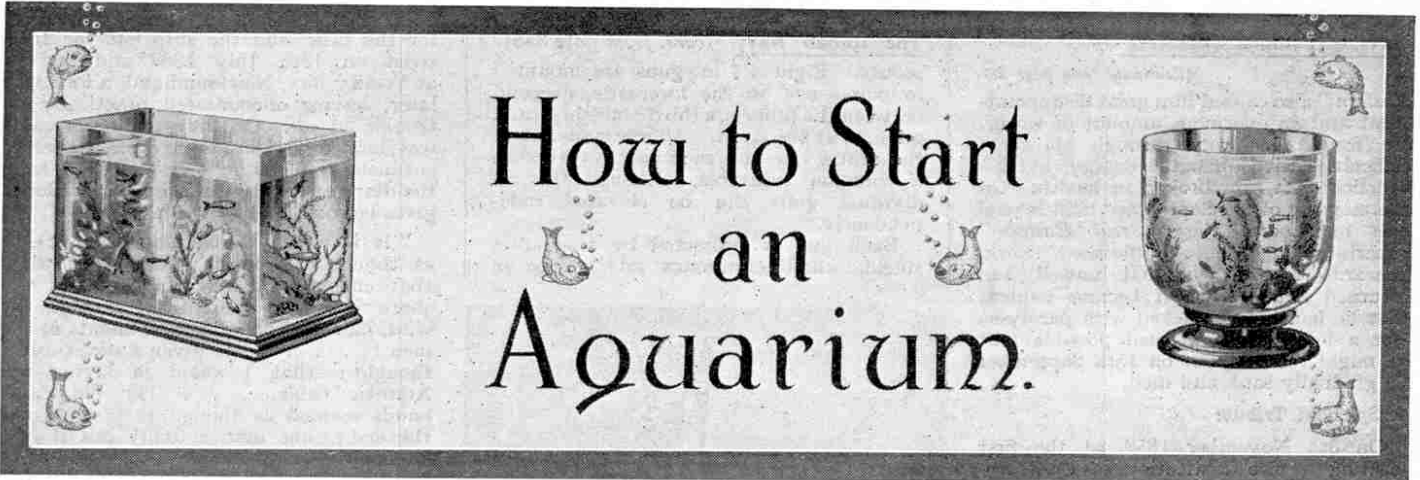
These two cables continued to work until 1872 and 1877 respectively. It is estimated that the total cost of completing the great undertaking, including the cost of the unsuccessful attempts, was nearly two-and-a-half million pounds.

Progress of Cable-laying

Since that time cable-laying has proceeded very rapidly and to-day there are eighteen cables joining Europe with North America, while hardly an ocean or sea in the world is without its electric wires. From England to Cape Town via Ascension and St. Helena there are two; from Cape Town to Singapore another, with a branch from the Cocos Islands to Australia, which in turn is connected to New Zealand (four cables) and Canada. From Java, via the Celebes, Guam, Midway Is., and Honolulu to San Francisco there is another, this having branches to Japan and China. There are many cables from Britain to the Continent, including one to the White Sea and another to the Faroes and Iceland, while there are several in the Mediterranean. There are five down the Red Sea, four from Aden to Bombay, one to Colombo, another to Seychelles, Mauritius and the Cape, and another to Zanzibar, Beira, Pretoria and Durban. To South America there are two from Europe and four from Africa.

In addition to these cables there are many others linking towns on the same coast, especially in South America, Africa and China, where it is often inconvenient to erect and maintain land telegraphs.

Thus it will be seen that, since the days of the brothers Brett, submarine telegraphy has grown from a seemingly fantastic dream to an invaluable aid to business and to political welfare throughout the world, enabling countries to keep in touch with one another though separated by thousands of miles of sea.



How to Start an Aquarium.

By W. COLES-FINCH
(Resident Engineer, Chatham etc. Water Co.)

II. BUILDING A TANK AQUARIUM

LAST month we gave an outline of the methods that must be adopted in order to make an aquarium of any kind a success. Since that article appeared, many readers have written to ask for instructions for making a more satisfactory aquarium than a simple bell glass, and therefore we give this month a detailed description of a type of tank that has been used by the writer for over 40 years, and has never leaked or given the slightest trouble of any kind.

Slate Foundation

The bottom is of slate (A, Fig. 4). Any builder will saw a suitable piece from some derelict slab in his yard and prepare it at a small cost, or will supply a piece of new slate, drilled and sunk for uprights or columns, grooved to take the glass and with holes bored for fountains and overflow pipes (B, Fig. 4).

Four angle columns of iron or brass grooved for the glass are now required (C, Figs. 3, 5, and 6). These must be provided with iron or brass studs at each end (D, Fig. 6). This may sound rather formidable, but any ingenious Meccano boy can make a wooden pattern for one column and a local metal founder will cast four at a small cost. If desired, their appearance may be improved by machining or draw-filing.

The next item is the wooden framing for the bottom, placed beneath the slate slab to give it support and to form a fixing for the mahogany moulding of the tank (Fig. 2). This framing is of ordinary well-seasoned fir, 2½ in. by 1½ in. The top framing should be of 1½ in. by 1½ in. mahogany (F, Fig. 3), and grooved for the glass as shown (G, Fig. 3). There should be little difficulty in mortising these frames together and ploughing the necessary grooves.

The stud ends of the columns pass through the slate and wooden bottom framing, and through the mahogany framing of the top, the washer and nut at both top and bottom being let flush into the framing (H, Figs. 3 and 5).

Bedding the Glass

Those to whom cost is of no importance may purchase four squares of ¼ in. polished plate glass from a glazier, but a builder probably will be able to supply the glass cheaply from the wreckage of some shop front. It will not matter if the glass is slightly scratched for this will not readily be discerned when the tank is filled with water.

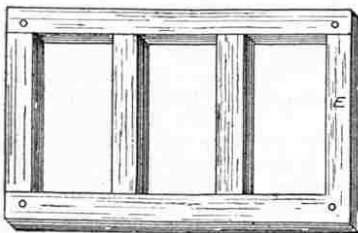


Fig. 2. Base for Slate

The glass should not be cut to size until the parts of the tank have been tried together and definite measurements taken. It would be wise to ascertain the thickness of the glass available for the purpose, however, and to make the grooves in slate and columns

1/16 in. fuller than the glass. The glass should be bedded in the slate grooves and columns with liquid red lead and gold size.

All that remains is to encase the top and bottom framing of the tank with moulded or beaded mahogany fillets, carefully mitred at the angles and fitted round the columns (I, Figs. 3 and 5). The help of a joiner may be advisable in this final stage of the work. The tank is then complete.

If the woodwork is carefully French-polished the tank will be one of which the owner may be justly proud. It will be worthy of a place in any room and if carefully stocked and given the little attention an aquarium demands it will be a source of never-ending pleasure.

In the matter of reliable controls for the fountains and unions for passing pressure water and overflow pipes through the slate

bottom, a plumber should be consulted, but nothing difficult presents itself in this matter.

It must be borne in mind that considerable strength is necessary in the construction of a tank, for each cubic foot of space will hold 6½ gallons of water weighing, say, 62 lb. The tank suggested has an inside measurement of 28 in. by 16 in. and is 13 in. deep. If filled to a depth of 12 in. it will contain some 19 gallons of water weighing 1¾ cwt., and yet it is by no means a large tank.

Importance of Surface Area

One important point making for success in an aquarium is that surface area must never be sacrificed to greater depth, for the amount of the life-giving oxygen taken up by the water is in proportion to the area of the surface of the water exposed to the atmosphere. For this reason it is suggested that, although the tank is 13 in. deep, no more than 9 in. or 10 in. of water should be placed in it. The additional depth is allowed in order that the floating plants may better be seen at the surface and that certain of the pond creatures may not readily escape.

Were it not for purposes of observation, the tank would be a more desirable habitation for its occupants if the back and both ends were also of slate, leaving only the front of glass. This objection may be readily overcome, however, by arranging curtains on three sides of the tank, to be drawn when desired. These curtains may be fixed on a brass rod or wire attached to the moulding at the top of the tank, and by this means judicious shading is easily obtained.

The dimensions of the tank may be varied to suit individual requirements, but due consideration always must be given to the thickness of the various materials used in its construction.

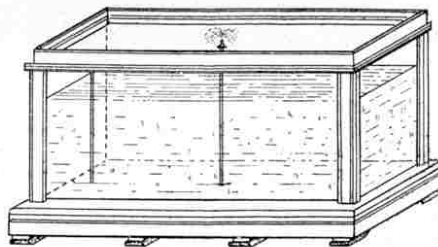


Fig. 1. Elevation of Tank

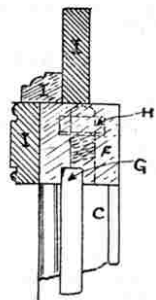


Fig. 3. Detail of Top

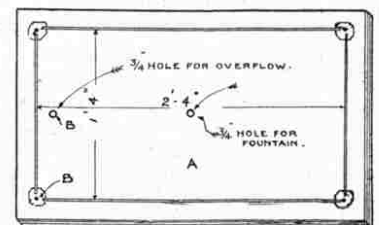


Fig. 4. Grooving of Slate

The particulars here given form a reliable guide in this respect.

Arranging a Fountain Jet

If it is considered too elaborate a business to connect town's water (under pressure) to the tank, a substitute may be arranged. Upon any high shelf near by, or in the room above, a small open tank may be fixed and from this a $\frac{1}{4}$ in. "compo" tube carried to the fountain inlet. A pail of water could then be siphoned from the aquarium and a pail of fresh water poured into the higher open tank, and this water, in the form of a tiny jet, would give a short but pleasing display adding greatly to the delight of the occupants of the tank.

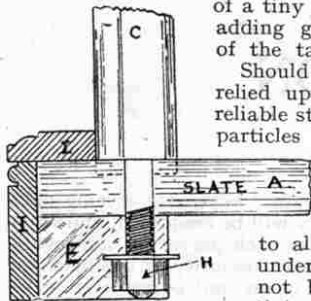


Fig. 5.
Detail of Bottom

Should pressure water be laid on and the overflow relied upon to govern the level of the water, a reliable strainer should be provided to keep floating particles of water plants or food from choking the overflow, with the unpleasant result of flooding the room. The writer has good reasons for suggesting that it is well to decide never to allow a pressure water jet to play except under close observation. Certainly it should not be left for a week-end, even with the tiniest jet playing, trusting to the overflow to regulate the level of the water. Many things may happen during one's absence!

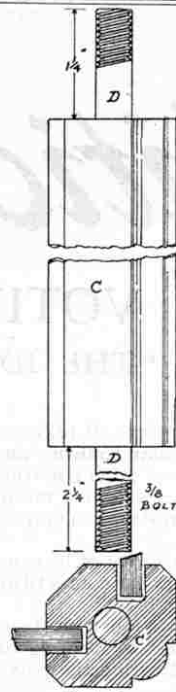


Fig. 6.
Detail of Column

NEXT MONTH:—

SOME SUITABLE FISHES

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New Wonders of Wembley—

(Continued from page 353)
and New Zealand, Ceylon, Burma, New-foundland, Malaya and the Africas have all reopened with increased splendour.

In the Hong-Kong section one is invited to lunch from real Chinese fare, which includes bird's-nest soup, "sam-shi" of shark's fin, lychees, curquet chow-chow and melon seeds. I did not consider that my taste was sufficiently educated for such delicacies, however, and departed in search of the more prosaic menu of our English restaurants!

Perhaps one of the great fascinations of Wembley is the fact that, at every turn, one never knows quite what to expect, for all kinds of weird and unusual objects are suddenly encountered in out-of-the-way corners. It is never wise, for example, to offer bread or choice buns to the stately swan that rides so gracefully near the edge of the lake, for one usually gets almost vexed at the aloofness and cold disdain with which he treats such tempting morsels, before discovering that he is made of wood! And it is just as one makes the discovery that everybody near laughs—probably because many of them have been similarly caught! It is also somewhat trying for the nerves, as one glides over the lake in an electric launch, to be suddenly confronted with a huge crocodile, apparently about to slip into the water from one of the banks. Again, imagine the havoc created amongst one's sisters when suddenly meeting half-a-dozen frogs, or toads, each about two feet in length, and all breathing from their throats in the correct batrachian fashion! Of course, being a Meccano boy, I always look for the "why and the wherefore," and quickly noted the partly concealed pipe connected to each frog that causes such a realistic impression.

New Rolling Stock for L.N.E.R.—

(Continued from page 347)

catch on the garnish rail. A lifting bar is fitted on the light and the customary lifting strap is, therefore, omitted.

All the doors are fitted with "Kaye's" patent wedge locks, with safety catch on the inside handle.

Interior Finish

The interiors of the compartments are finished in varnished teak, the ceilings being covered with millboard. Advertisement frames of varnished teak are placed above the seat backs.

Woven wire seats are used throughout. The seats in the first class smoking compartments are upholstered in leather, and those in the first class non-smoking compartments in best blue cloth. The seat front rail is faced with leather cloth. No buttons are used.

The seats in the second class compartments are upholstered in crimson carriage pile cloth, and those in the third class in leather cloth.

Spring blinds are fitted to each quarter, and there are two standard 4 in. torpedo ventilators in the roof of each compartment.

Each vehicle is equipped with passenger communication apparatus.

The carriages are finished outside in varnished teak, the underframes being painted teak colour, and the ironwork details finished in black japan.

Two Reliable Crystals

From tests that we have carried out recently, we are led to the conclusion that the user of a crystal set who employs a "Talite" or "Hertzite" super-sensitive crystal need entertain no doubts as to whether he is obtaining the best results possible from his detector. These two popular crystals are made by Messrs. Harding, Holland & Fry Ltd. (52, Queen Victoria Street, London, E.C.4), a firm whose products are the result of several years' experience and research in the refinement of metals. The makers claim that "fiddling about" with a cat whisker is unnecessary as Talite is active all over and is, in fact, "all live spots" and each piece is tested before being sold. The selection of a reliable crystal is an important matter in achieving good reception and we strongly recommend Meccano boys to test a "Hertzite" or "Talite" on their own sets and compare results. Our readers may obtain either of these crystals from any wireless dealers, or direct from the manufacturers.

OUR MAIL BAG



A. Landell (Montreal).—You have certainly taken a long time to write to us, but now that you have broken the ice we hope to hear from you regularly. Your experience of mumps was certainly trying, but we hope by this time you have recovered. You appear to live in a warm quarter, with fires in front and behind your house. We hope that by now you have your Meccano fire alarm installed. Why not keep a Meccano fire escape handy in case of emergencies?

R. Cose (Christchurch, N.Z.)—We are glad to welcome you back to the fold. There is joy in Meccanoland over the return of each one of the few misguided ones who leave our sunny shores. We are sorry we are not able to use your article, as we recently published one on the same subject. We hope you will try again.

A. G. Carnacho (Georgetown, Demerara).—We are pleased to hear that your No. 7 Outfit keeps you happy and busy. Guild literature is being posted to you separately.

G. H. Pollard (Leeds).—We know your city well, and the glorious country round it. Why should you be too frightened to write to us—We never heard of such a thing! We shall expect to hear from you regularly, George.

C. Howard (Mosgiel, N.Z.)—We were interested in reading your account of your camping out experiences in the South Island, and we look forward to receiving your snapshots. We had already heard of the epidemic of Infantile Paralysis in New Zealand, which we hope has now abated.

T. S. Nagi (Amritsar, India).—Under separate cover we have sent you a list of Guild members, and we hope your efforts to form a club will meet with success. Competition entry received.

H. G. Slade (London).—Thanks for your suggestion for attaching wheels to locos. The new Hornby Electric Loco, which will soon be on the market, has wheels fitted in this way. The idea is quite sound, but of course not new.

T. Appaduray (Perak, Malay States).—One of the most useful sides of the Meccano Guild's activities is the encouraging of friendliness between boys of all countries by means of its Correspondence Club. We are pleased that you are making such good use of the club and that you enjoy the letters that you receive.

V. H. Alpe (Kandana, Ceylon).—"I have a great desire to see the Meccano Factory, but I suppose I should require a sort of Magic Carpet to do that. I doubt if I shall ever have a chance of coming to England. I shall have to be contented with looking at it through Dick's eyes. Thanks to Meccano I shall soon have a new chum in England." At all events through the "M.M." you are kept posted regarding all the doings in Meccanoland, and this we are glad to see gives you pleasure. Who knows but what the Magic Carpet may some day come along your way and ship you over to us? More wonderful things than that have happened.

R. B. Sibson (Cliffe-at-Hoo).—We are pleased to note your keen interest in the study of nature. We hope to publish further bird articles. You would probably find pleasure in reading White's "Natural History of Selborne," and some of the fine books written by the late W. H. Hudson.

G. F. Raynor (Cholsey).—Most fathers are just like your own. They say what a wonderful publication the "M.M." is for boys, and then they proceed to read it all through themselves! The same kind of thing happens with Meccano and Hornby Trains. It's just as well, anyhow, because it's a fine thing for fathers and sons to have common interests.

N. Fraser (Canterbury, N.Z.)—Wiseman's Meccano Club with its 710 members, is amongst the most successful and the biggest in the world, and you are lucky to be a member of it. Thanks for interesting snapshots.

E. Green (Torrensville, S.A.)—You seem to be a fine sturdy Meccano boy judging by your photograph. We hope you will make full use of the Guild Correspondence Club.

Keith Boothby (Clarence River, N.S.W.)—Many thanks for the two copies of the "Sydney Mail." The pictures were interesting and excellent. Your cricket record is a fine one, and in a few years' time we shouldn't wonder if we saw you over here with the test team. We shall give your fellows a great welcome next year, and we shall try to treat them as well as you treated Hobbs, Sutcliffe and Co.

T. Pattie (Keetmanshoop, S.A.)—"We are having glorious rains here just now and the country is looking beautiful." We have rain most days, Tom, but we rarely call it glorious. We are sorry for the mistake in the Overseas Closing Date for the Competition and we will see that this does not happen again.

Competition Corner

CRICKET VOTING COMPETITION

"THE IDEAL ELEVEN"

The cricket season is now in full swing and we are all taking a keen interest in the progress of our own particular counties and in the doings of the "star" batsmen and bowlers of other counties. We all have our own opinions in regard to the respective merits of the great players of to-day, and it is very interesting to compare ideas on this fascinating question.

In order that our readers may have an opportunity of learning one another's views we are announcing this month a competition on the subject: "THE IDEAL CRICKET ELEVEN."

All that competitors have to do is to send in on a postcard the names of the eleven players they would select as forming the best possible cricket team, at the same time indicating the player

they would choose to captain the team. When the closing date of the competition arrives, each entry will be examined, and from the total number of votes in favour of each player we shall work out the team that finds favour with the majority of competitors.

There are no age limits in this contest and competitors may submit more than one team if they wish.

Prizes of Meccano goods to the value of £1/1/-, 15/-, 10/6 and 5/- respectively, will be awarded to the four competitors whose selections are most closely identical with the result of the total vote.

Entries must reach this office not later than 31st July (Overseas, 30th November).

Seventh Drawing Competition

During the next few weeks many of our readers will have left their usual haunts for a little while and will be revelling in the delights of sea and shore. There are few more interesting sights, especially to those who live in inland counties, than a pleasure boat or fishing boat under full sail, slipping through the water. It is extremely interesting to try one's hand at capturing on paper the charm of a sailing boat and we therefore announce this month as the subject of our Seventh Drawing Competition, "A PLEASURE BOAT OR FISHING BOAT UNDER SAIL."

The competition will be divided into two classes, A for those of 16 and over and B for those under 16. Four prizes are offered—Drawing or Painting Materials (or Meccano products if preferred), to be selected by the winners, to the value of 10/6 and 5/- respectively for the first and second in each section.

Competitors who wish their drawings to be returned must state this at the time of sending in their entries and must also enclose stamped envelopes of suitable size.

Closing date, 31st August (Overseas, 30th November).

Results

April Essay Competition

The task of selecting "The Seven Modern Engineering Wonders of the World" apparently was a pleasant one to a very large number of readers. In no case were two sets of selections identical, or even approximately so, which was not surprising, as of course such a task must necessarily reflect the personal inclinations and opinions of each entrant. In judging the entries for this competition great stress was laid on the reasons given for each selection.

We look forward with interest to the voting competition arising out of this contest, which we shall announce in October when the Overseas essays have come to hand.

Prizes have been awarded as follows:—Meccano Goods value £1/1/-, G. S. Marsh (Thornton-le-Fylde) and Ivor G. Thomas (Ynysbor, Glamorgan); Meccano goods value 10/6, Wallace Russell (Lewes), and W. Heatley (Hollybush by Ayr).

We hope to publish the winning essay at a later date, after the close of the voting competition.

Fifth Drawing Competition

As we expected, this proved to be a very popular Contest, and the majority of entries were of quite a high grade. So many steam wagons are to be seen along our roads nowadays that no observant lad should find any difficulty in retaining a mental picture of at least one type of these efficient vehicles. A very noticeable fault was the general exaggeration in the diameter of the boiler in the case of horizontal-boiler types. In many actual types the tall funnel does look disproportionate and a fair number of competitors sought to improve matters by increasing the girth of the boiler at the smoke-box end. This, of course, quite spoilt the effect.

The awards in this contest are as follows:—Class A—First Prize, George Wood (Halifax); Second Prize, A. W. Weeks (Yiewsley, Middlesex). Class B—First Prize, L. B. Braithwaite (Lancaster); Second Prize, N. Riddiough (Bradford).

"Palindromes" Competition

Entries flocked in merrily, and among them were many old favourites together with some strikingly novel ones. It was realised by many competitors that to make an original Palindrome is much more of a mental task than to solve a Cross Word puzzle!

Awards:—First Prize (Meccano goods value £1/1/-), K. Paddon (Croydon); Second Prize (Meccano goods value 10/6), J. E. Malcolm (Stirling); Third Prize (Meccano goods value 5/-), A. Steggall (S. Shields).

Competition Closing Dates:

HOME.		
June Essay ...	...	31st July.
Seventeenth Photo ...	...	31st July.
Cricket Voting Contest ...	...	31st July.
Sixth Drawing ...	...	31st July.
Seventh Drawing ...	...	31st August.
OVERSEAS.		
"Coral Island" Mistake ...	...	31st August.
Essay (April) ...	...	31st August.
Fourteenth Photo ...	...	31st August.
Fifth Drawing ...	...	31st August.
Guild Motto ...	...	30th September.
Essay (Easter Holiday) ...	...	30th September.
Painting (Hornby Train) ...	...	30th September.
Fifteenth Photo ...	...	30th September.
Sixth Drawing ...	...	31st October.
Sixteenth Photo ...	...	31st October.
Club Programme (Members Only) ...	...	31st October.
Seventeenth Photo ...	...	30th November.
Seventh Drawing ...	...	30th November.
Cricket Voting Contest ...	...	30th November.

Watch the Closing Dates:

Competitors, both Home and Overseas, are particularly requested to make a careful note of the closing dates of any competitions for which they intend to enter. Week by week we receive entries for various competitions that have been closed for some time. Some of these entries are excellent and it is a pity for competitors' good work to be wasted on account of losing sight of the closing date.

Overseas Results

"My Favourite Railway"

The task of judging the large number of entries that arrived from every quarter of the globe was greatly lightened by the excellent quality of the essays. Many of the entries reached a very high standard of literary merit, and the reasons given for favouring a particular line were very varied. The affection of one of the prize-winners is claimed by a line that provides much fun by its prejudice against fast travelling. Our essayist claims that a carriage near the engine is dangerous on account of possible boiler explosions, that vehicles at the rear of the train break away, and that carriages in the centre, being built for ornament, have unreliable—even rotten—floors. Yet this line is his favourite!

Awards:—Class A, First Prize (by choice a No. 1 Crystal Receiver), C. E. Heald-Warner (Swakopmund, S.W. Africa); Second Prize (Meccano Goods value 10/6), James Classen (Magaliesburg, Transvaal). Class B—First Prize (Meccano goods value £1/1/-), L. Fisher (Johannesburg); Second Prize (Meccano goods value 10/6), Tony MacLachlan (Dunedin, New Zealand).

Cycling Hints Competition

The entries for this competition indicate by their number that among Meccano boys the "push-bike" still holds pride of place, both as a means of transit and as an interesting hobby. It was specially interesting to find that most of the hints were in the direction of remedies for various troubles and contingencies of the open road that had befallen competitors themselves.

"Rover's" final selection was as follows:—First Prize, H. Fox (Christchurch, New Zealand); Second Prize, Paul Shave (Remuera, New Zealand). Consolation Prizes, Alick Young (Grahamstown, S. Africa), and John Reid (Oamaru, New Zealand).

Third Drawing Contest

Our Overseas readers in many cases were at a grave disadvantage in living far beyond the range of modern tramway systems, and from many letters received it is readily apparent that this fact seriously limited the number of entries for our Third Drawing Contest. V. R. Heeramanek (Bombay) sent in a very creditable effort and we have awarded him a prize of Meccano goods, to be selected by him, to the value of 10/6.

"Suggestions" Contest

We were pleased to notice how many of the suggestions submitted to us by Overseas readers were of a serious and constructive nature as distinct from the merely "pastime" competitions which find a regular place in so many journals. Thus, further competitions along the lines of the memorable "Lynx-Eyed" contests were repeatedly suggested, and some of the variations were distinctly ingenious.

Very careful consideration was given to every suggestion submitted, and the four prizes of Meccano Double Headphones or No. 1 Radio Receivers were awarded to Leon Boxill and Zena Boxill (Port of Spain, Trinidad, B.W.I.), Leonard Fisher (Johannesburg) and E. H. Whitney (Maclear, South Africa).



Puzzles

July Puzzle Competition

WHEN the blazing hot weather came along last month I told myself that the entries for the June Puzzle Competition would show a big decrease as compared with those of the previous month. I was agreeably surprised therefore to find that, as the days went on, entries came rolling in thick and fast, and instead of the final total showing a decrease it showed quite an appreciable increase on the May total!

I think the explanation for this state of affairs is to be found in the fact that competitors were not required to concoct palindromes or to worry out cross-word puzzles, but simply had to tackle a variety of puzzles of a less brain-racking nature, and therefore more in keeping with the weather. I was particularly interested to receive quite a number of letters from competitors in which they told me that they had taken their beloved "M.M." out-of-doors, settled down in some shady nook, and then and there tackled the puzzles!

The word-building puzzle (No. 90) has proved very popular and next month I hope to publish the most successful solution sent in.

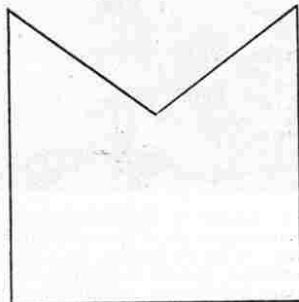
This month I am announcing a competition on similar lines to that for last month. Each competitor must send in the solutions of five of the puzzles on this page. In the case of puzzles requiring a diagram for their solution, a rough sketch will suffice so long as it makes matters perfectly clear.

For this competition I am offering three prizes—Meccano goods to the value of £1/1/-, 10/6 and 5/- respectively.

The closing date of this competition is 31st July and there is no overseas section.

Puzzle No. 102.

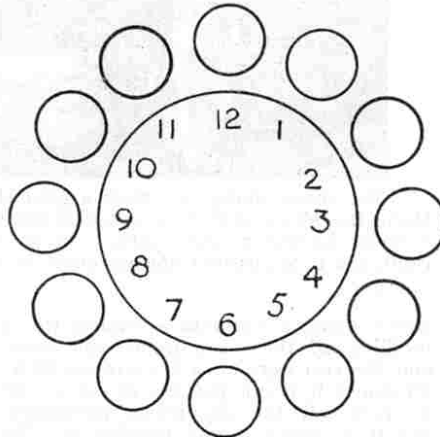
How can the following figure be divided into four parts each of exactly the same size and shape?



Puzzle No. 103.

By re-arranging the letters in each of the following words or phrases the name of a town or county will be formed:—1. Try our hat game; 2. Rats game; 3. The sound; 4. Don't prove; 5. Lend a crumb; 6. Fix two eels; 7. Sid robs a tar; 8. Rose cut leg; 9. Aim to send; 10. Tom hops rut; 11. Ring both; 12. Nut lard.

Puzzle No. 104.



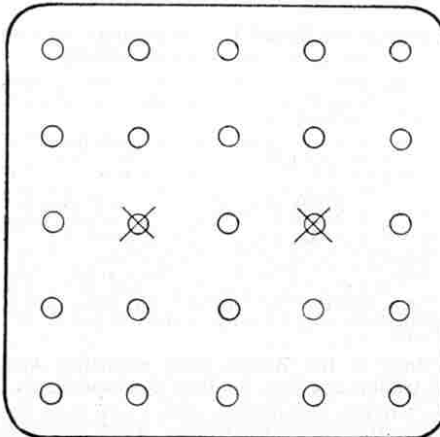
Arrange twelve pennies or counters in a circle as shown in the diagram above. Now take up one penny at a time, pass it over two pennies and place it on the third penny. Take up another single penny and do the same thing, repeating the process until, after six moves, the coins are arranged in six pairs in the positions 1, 2, 3, 4, 5, 6. You may travel in either direction round the circle at each move and the two pennies jumped over may be either two separate coins or a pair.

Puzzle No. 105.

My first is in field, but not in grass,
My second is in crystal and also in glass,
My third is in good but not in bad,
My fourth is in wise but not in mad.
My fifth is in men but not in girl,
My sixth is in stair and also in whirl,
My whole is a thing of gladness and cheer,
Most seen when the season of summer is here.

Puzzle No. 106.

In the Meccano Flat Plate illustrated below, all the holes, with the exception of the two marked with a cross, are to be filled in with one of three different letters. No more than these three are to be used and the letters are to be arranged so that they spell a common English word in twelve different directions.

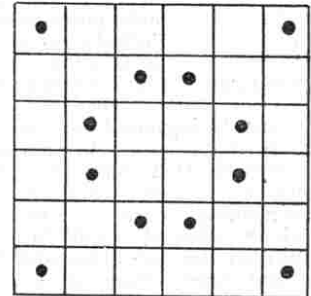


Puzzle No. 107.

Give a list of all the words in the English language ending in "dous."

Answers to Last Month's Puzzles

No. 91. The following figure shows how the coins must be arranged.



No. 92. John Underwood, Andover, Hants.

No. 93. The sentence is as follows:—That man says that Mary and Jack saw many small bags at an art bazaar at Mandalay.

No. 94. There were eight persons in the room. These were an old lady, one of her daughters with two sons, another daughter with two daughters and the daughter of a daughter who was not present.

No. 95. Buoy
d O I I
be Ad
me a T

No. 96. The missing words are:—I, Is, Sir, Rise, Reins, Insert, Entries, Interest, Resetting.

No. 97. (1) Jenny Wren; (2) Jack Daw; (3) Tom Tit; (4) Secretary Bird; (5) Cynet; (6) Ruff; (7) Adjutant; (8) Magpie; (9) Kingfisher; (10) Lark; (11) Swallow; (12) Turkey; (13) Ducks and Drakes.

No. 98. 1. Time, emit; 2. Now, won; 3. Not, ton; 4. Pot, top; 5. Dim, mid; 6. Mad, dam.

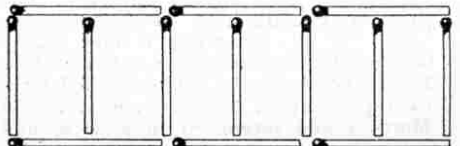
No. 99. The three proverbs are:—1. Rolling stones gather no moss; 2. Fine feathers make fine birds; 3. Time and tide wait for no man.

No. 100. The window was diamond-shaped and was enlarged to a square.

No. 101. The towns indicated are:—Rome (roam); Leeds (leads); Ayr (air); Peel; Leek; Cork; Crewe (crew); Berlin; Toulouse (too loose); Toulon (too long); Harrow and Rugby.

Puzzle No. 108.

The following diagram, made with thirteen matches, represents a farmer's hurdles arranged so as to enclose six sheep pens all of the same size. One of these hurdles was stolen and the farmer was unable to replace it. After a great deal of thought he found that, by re-arranging the remaining twelve hurdles, he could still enclose six pens of equal size. How did he do it?





The Secretary's Notes

From every point of the compass enthusiastic reports are reaching me from club secretaries and they one and all

Guild Happenings

make pleasant reading. Entirely out of date is the idea that a Meccano Club depends for its existence on a winter hobby, and is organised for that hobby alone! It is reasonable to assume from these reports that summer activities occupy almost as high a place in the esteem of club members as do those of the long dark nights when clubroom fires "glint cheerfully on Meccano Crane and Hornby Train, and happy eager faces," as one member poetically expressed it. Thus, one progressive club secretary in the Southern Midlands sends me a neatly-printed card giving the dates and particulars of summer events in similar fashion to a cricket fixture list. Organised visits to railway works and various other centres of interest to the mechanically-minded are varied by country photographic rambles, cricket matches, small gymkhanas to raise funds and even a club "Week-end Camp." Then again, a well organised Lancashire club had a day at the seaside recently, when the visitors were taken charge of and splendidly entertained by the local Meccano Club.

The number of clubs organised in various schools, both public and private, continues to grow, and among them are to

School Clubs

be found some of the strongest and most enthusiastic clubs in the Guild. Such school clubs have many points in common in their development. Usually they owe their origin to some boy who has realised the delights of Meccano and Hornby Trains and is a regular reader of the "Meccano Magazine." His enthusiasm spreads to others, and soon a small group of would-be model experts forms. In many cases such a development has reached the approving notice of the Headmaster and he has fostered it by commending the club idea to one of his masters.

Large numbers of Guild members continue to write to me asking to be put into touch, through the Guild Correspondence

The Correspondence Club

Club, with Colonial or foreign members having similar interests. The work of this valuable agency is now highly developed. For instance, last month a French boy living in Belgium asked for a correspondent of his own age living in Morocco and interested in stamps, and

A Fine Club Exhibit



The above photograph gives a good idea of the splendidly-arranged display of the 1st Herne Bay Meccano Club at the Spring Show of the local Horticultural and Industrial Society, to which we referred last month. The Leader, Mr. W. H. Russell, is standing on the extreme right, and C. W. Russell, the Secretary, is second from the left.

within about a fortnight a suitable friend fulfilling all these conditions was found and the two were already corresponding! Of course it is not possible in every case to fulfil all the conditions demanded, but it is always found possible to offer a very attractive alternative correspondent, and my files at present hold the names of some remarkably interesting Meccano boys in such places as Orkney, Belgium, France, Ireland, Palestine and India. Naturally, the great majority of applications I receive are from boys in the British Isles, mostly in need of correspondents in Canada, Australia, New Zealand, South Africa and other parts of the Empire. So many of these applicants are waiting patiently at the present time that I am publishing a list of the initials and favourite subjects of a small number of them, so that any Overseas reader may select one of these enthusiasts from the Homeland and write him a letter, addressed in the first place "c/o Guild Secretary, Meccano Ltd., Binns Road, Liverpool." Such letters will be forwarded to the owner of the initials, and his reply, coming through me in the first case, will be duly re-posted overseas.

Boys in the British Isles requiring Canadian or American Correspondents.

(The letters in brackets after a correspondent's initials indicates his favourite subjects according to the table printed below.)

R.N. (E.), R.F. (C.), J.E.B. (E.), R.P. (G.), J.S.D. (S.C.), G.D. (S.C.), M.H. (W.), C.W. (S.C.), M.W. (A.), N.F. (G.), F.S. (G.), S.P. (E.), W.R.C. (E.), A.H. (E.), G.B. (S.C.), O.H. (S.C.), E.J.S. (S.C.), J.L. (E.), E.Y. (S.), R.T.M. (E.), A.M.B. (P.), D.R. (A.), S.G. (C.), M.B. (W.), R.B. (S.), A.A. (E.), G.W. (G.), J.G.N. (E.), T.W.S. (A.), L.C. (S.C.), N.F. (N.S.), I.L. (C.), S.M. (W.), G.S.S. (N.S.), F.J.J. (N.S.), F.M. (G.), A.D. (E.), F.I. (P.), R.K.G. (S.C.), H.C.D. (S.C.), G.B. (P.), E.J.W.J. (P.), W.W. (E.), A.B. (W.), D.S.W. (S.C.), F.C. (E.), J.B.W. (S.C.), T.F. (S.C.), C.W.H. (E.), W.M. (P.), J.W.M. (E.), A.W. (E.), A.G. (W.), V.P.C. (G).

Boys in the British Isles requiring Australian and New Zealand Correspondents.

L.H. (T.), N.K. (G.), C.B. (W.), A.E.H. (S.C.), R.B. (G.), H.B. (S.C.), W.S.W. (E.), G.C.S. (G.), K.W. (N.S.), E.L. (N.S.), C.B. (E.), R.W. (F.), L.D. (P.), P.M. (S.C.), G.C. (J.W.), A.W. (E.), A.D.B. (E.), M.S. (S.C.), D.W.J. (E.), S.M. (S.), L.W.W. (S.)

Boys in the British Isles requiring South African Correspondents.

C.A.P.B. (E.), A.F. (S.C.), V.S. (E.), T.P. (S.C.), E.H.M. (W.), M.S. (S.C.), P.T. (J.W.), A.H.O. (E.), H.J.B. (N.S.), I.S. (N.S.), M.T.P. (S.C.), D.L. (E.), J.L.A.R. (C.), A.McK. (E.S.C.), W.S. (N.S.), E.A.W. (S.C.), J.R.T. (J.W.), L.J.B. (S.)

(C.)—Cycling. (E.)—Engineering. (G.)—General Subjects. (N.S.)—Nature Study. (P.)—Photography. (F.)—Farming. (J.W.)—Joinery and Woodwork. (W.)—Wireless. (S.)—Sports. (S.C.)—Stamp Collecting. (T.)—Travel. (A.)—Art.

A Wireless Enthusiast



We have pleasure in reproducing a photograph of John Deaves, aged 14, of Bures, Suffolk, who is an enthusiastic member of the Meccano Guild and holds the Recruiting Medallion. John's chief interests are Meccano and Wireless, and with the latter subject especially he is very much at home. In the spring a Wireless demonstration was given to a crowded meeting at Bures, and in addition to manipulating the four-valve set loaned by his father, John gave an interesting introductory lecture which was much appreciated by the audience and was praised by the local newspaper.



CLUB NOTES

St. James' Choristers (Exeter) M.C.—The membership has increased from 21 to 51 since last Christmas, and it has been found necessary to divide the members into divisions on the "House" system, and until larger premises are available the "Houses" have to meet and work separately. The chief task of last session was the completion of a model of Exeter Cathedral, made entirely of Meccano parts. This model, complete with bells, was most favourably commented upon by the local press, and was exhibited at various Exeter schools in turn. Merit Medallions have been awarded to L. W. Badcock and L. G. London. Club roll: 51. *Secretary:* L. Mathews, 44, Rosebery Road, Exeter, Devon.

Great Baddow (Chelmsford) M.C.—Has held an Exhibition to raise funds for purchasing a cricket set, etc. Each member contributed a model and Headquarters loaned a Derricking Crane which attracted considerable attention. The total proceeds, including those from a whist drive and a special donation, amounted to £4 15 0. Club roll: 14. *Secretary:* J. Boreham, Post Office, Baddow Road, Chelmsford.

Loanhead Boy Scouts' M.C.—An excellent programme of rambles and excursions has been arranged for the summer. Members are keen to start a Club Magazine. Club roll: 14. Average attendance: 8. *Secretary:* Bertie Warnock, R. P. Manse, Loanhead, Midlothian.

Maryfield M.C.—This newly-affiliated Club was founded in October 1924 with a membership of six, which soon increased to ten. Two concerts raised enough funds for a joint Social Evening and Exhibition of Meccano Models and Hornby Trains, and these events were followed by a Model-building competition for which prizes kindly offered by Mr. Webster were awarded as follows: 1. S. Smith (Crane); 2. D. Blaney (Telephone); 3. G. Small (Maxim Gun). Visits have been made to the Municipal Gas Works and Electricity Generating Station. *Secretary:* S. Smith, 14, Maryfield Terrace, Dundee.

Luton M.C.—A well-organised session concluded with a Social Evening, at which prizes were presented for various competitions. The Leader, Mr. S. Burgoyne, gave a special prize for the member whose attendance throughout the session was most regular. Club roll: 26, average attendance: 18. *Secretary:* L. Goffsmith, 69, Tennyson Road, Luton.

Ilfracombe M.C.—The latest Exhibition was most successful, and from photographs of the exhibits it is apparent that no pains were spared to achieve this end. Seven Hornby Trains contributed to a very extensive model railway layout, and a collection realised £4 6 6. Club roll: 28. Average attendance: 22. *Secretary:* W. Webber, 14, Springfield Road, Ilfracombe.

Marsh Street (Walthamstow) M.C.—Members have decided unanimously to continue paying subscriptions during the summer in order to build up a strong financial position for Winter activities. Saturday mornings are being devoted to tennis lessons for learners, through the kindness of the Club Leader. Club roll: 19, average attendance 13. *Secretary:* C. W. Redfern, 34, Church Hill Road, Walthamstow.

Stockton-on-Tees M.C.—The most recent events of interest have been the General Meeting, Secretary's Reports, etc., and a Hornby Train display night. Club roll: 12. *Secretary:* Norman Middleton, 14, Victoria Avenue, Norton Road, Stockton-on-Tees.

Handsworth (Birmingham) M.C.—Much interest is being shown by members, though the continued good weather has affected attendances at indoor meetings. On May 13th the club held a *Mock Trial* the part of judge being taken with becoming dignity by the Rev. Royle, Padre of Toc. H. Mark VI. There was a good audience, including contingents from Bearswood M.C. and King Edward's M.C., and a message was read from the Guild President. A games programme has now been added to the club's activities and Boxing and Single-stick are popular. In addition Cricket and Air-gun sections have been formed, and the Dramatic Section is busy choosing a play suitable as its next production. Club roll: 40. *Secretary:* Norman J. Robertson, 30, Hinstock Road, Handsworth Wood, Birmingham.

South Park (Ilford) M.C.—Mr. H. J. Charlton, the Leader, reports that the first session has been successful beyond all expectation. Concluding the syllabus with a tea and social, the club has suspended operations during the summer months. A very satisfactory balance sheet was submitted to headquarters. Club roll: 30. *Secretary:* N. Tweddell, 103, Breamore Road, Seven Kings, Ilford.

St. Mary (Bourne) M.C.—An Exhibition of Hornby Trains and Meccano Models was given at the Church Fete on 17th June. Other seasonable activities include Cycling Trips, Sports Championship Meeting and Cricket Match, and Club Camp. Club roll: 20. *Secretary:* D. L. White, "Rosedale," Stoke, Nr. Andover, Hants.

Richmond (Surrey) M.C.—At a recent meeting a new committee was elected, a new secretary appointed, and the rules were overhauled and altered. No ordinary meetings will be held during August, but Cycle Trips have been arranged and the committee have decided upon a Club Day at the British Empire Exhibition. In connection with this interesting event a Savings Fund has been opened, members paying in as much as they like, and after payment of expenses the balance will be spent at the Exhibition. A Sports Meeting has been fixed for July 18th. The Cricket Team is doing better than last season and all four games played have been won. A Special Merit Medallion is to be presented to the club's former secretary, J. Viney, who did excellent work last winter. *Secretary:* Alfred R. White, 15, Albert Road, Richmond, Surrey.

Meccano Club Secretaries

No. 4. Miss K. R. Day



Miss Kathleen R. Day, Secretary of Blagdon St. Andrews Meccano Club, has the honour of being the first and only lady secretary of an affiliated Meccano Club. The success of the Blagdon Club is largely due to her enthusiasm and hard work, coupled with the valuable Leadership of Mr. F. C. Taylor. Miss Day has been secretary since the commencement of activities last winter.

The Blagdon Club has tried with great success the interesting experiment of running musical half-hours on model-building nights. Each member contributes weekly towards the purchase of a Meccano Outfit for the use of the club, and last session a prize was awarded to the member having the best record of attendance.

Harwich M.C.—The Prize Distribution and Concert was held on June 10th. Merit awards were presented on this occasion to W. Biles and W. Hatcher. J. Brooks is compiling a history of the club's successful career. Mr. Philip Whittingham, who has shown great interest in the various activities, has now been appointed Deputy Leader. Club roll: 34, average attendance 28. *Secretary:* A. E. W. Ward, Osborne House, Pepys Street, Harwich.

2nd Porthcawl M.C.—In order to ensure a good session next autumn, the secretary is anxious for all Meccano enthusiasts in the district to get into touch with him. During the summer the usual activities are suspended. *Secretary:* G. Morgan, "Glen Gower," 20, Park Avenue, Porthcawl.

South Africa

Durban M.C. (South Africa).—The Mayor of Durban has kindly presented badges and certificates to new members, and also recruiting and merit awards. The Club has been invited to organise a stall at a forthcoming Motor Trades Exhibition. The Motor Trades Association has offered a prize of £5 5 0 for the best original model to be judged by eight members of the Natal Institute of Engineers under the supervision of Prof. Neale, a Vice-President of the Meccano Club. Other gifts to the club include a Wireless Set from the Britannic Wireless Co., and a No. 4 Meccano Outfit from Messrs. Reynolds & Co. A silver cup, value £25, to be competed for annually, has been presented by Messrs. Harvey, Greenacre & Co., Durban. This trophy will be held for a year by the winner, but each year it will be accompanied by a silver replica in miniature which will become his own. The cup will be presented for Conduct, Hardwork, Sportsmanship, Attendance, and Comradeship. Club roll: 85, average attendance 88 per cent. *Secretary:* A. Altmann, Durban Meccano Club, Natal Technical College, South Africa.

Clubs not yet Affiliated

Oak Street (Accrington) M.C.—Is connected with Oak Street Congregational Church and owes much of its success to the practical assistance of the Rev. H. G. Newsham and the enthusiasm of the Leader, Mr. W. Little. During the summer the programme is largely of an outdoor nature. Club roll: 14, average attendance 12. *Secretary:* J. Duckworth, 57, Manchester Road, Accrington.

Saltney Ferry (Chester) M.C.—Has obtained the use of an excellent club room through the courtesy of the L.M.S. Railway Company. A Recruiting Campaign is being vigorously conducted under the Leadership of Mr. E. Rowlands, 37, Ewart Street, Saltney Ferry, Chester.

Queen Elizabeth's Grammar School (Crediton) M.C.—Has been well supported among the boys of the School, and now, with the practical help of Mr. T. H. Thompson, one of the masters, members are keen to have their club affiliated with the Guild. Club roll: 14, average attendance 12. *Secretary:* J. F. Clarke, Queen Elizabeth's Grammar School, Crediton.

Belturbet (Co. Cavan) M.C.—Has been started through the enthusiasm of the secretary, and the indications are that it will be quite a successful club. Club roll: 8. *Secretary:* J. Kennedy, 3, Railway Road, Belturbet, Ireland.

Marks Tey M.C.—Twelve members have been enrolled, and it is hoped shortly to obtain the use of a permanent headquarters. *Secretary:* Roy Brownsell, Oak House, London Road, Marks Tey, Essex.

Mossley (Manchester) M.C.—Membership continues to grow. Meetings are now held weekly and recently the club purchased a good Meccano outfit. A small weekly contribution is made and suffices to pay the rent of the club-room. Club roll: 11, average attendance 8. *Secretary:* J. Yates, 8, Woodbank Terrace, Mossley, nr. Manchester.

St. James (Leek) M.C.—Has now applied for affiliation. Members have installed electric lighting and heating appliances in the well-equipped club room at Consall Hall. The various activities include a successful Football Team and a First Aid Section. The Club Leader, Mr. A. S. Podmore, is an ex-officer of the Red Cross Society and is thus well qualified to organise this useful feature. Club roll: 20, average attendance 20. *Secretary:* W. Armstrong, 4, Gault Buildings, Derby Street, Leek.

Beverley Road I.M.C.C.—Has now succeeded in obtaining a good Leader in Mr. Tom Cooper. Regular meetings are held, and great interest is shown in Hornby Trains and Model Railway working. Club roll: 19. *Secretary:* H. Henshaw, 35, Kendal Road, Bolton, Lancs.

Siena (Italy) M.C.—Membership shows a steady increase. In addition to weekly meetings for Model-building, members have a Football Team, a Cricket Team, a Cycling Section, and a regular schedule of Gymnastics. *Secretary:* V. Bruchi, 39 Via Ricasoli, Siena, Tuscany, Italy.

Hipperholme Wesleyan M.C.—Continues to hold regular meetings and much enthusiasm is displayed. E. W. Rushforth has been appointed secretary and has changed his address to Laverock Lane, Brighouse, Yorkshire.

Darlington M.C.—Members are working hard in preparation for a forthcoming Concert and Exhibition of Models. The committee have a good syllabus drawn up, and in view of the Railway Centenary Celebrations this month at Darlington specially interesting reports are expected from members. Club roll: 12, average attendance 9. *Secretary:* A. G. Pankhurst, 90, Willow Road, Darlington.

Proposed Clubs

Cowes (Isle of Wight).—A vigorous attempt to found a Meccano Club is being made. The leading part is being taken by J. P. Bartlett, Moss Side, Park Road, Cowes, to whom all interested should make immediate application.

Anerley (London, S.E.20) M.C.—All Meccano boys residing in the district and wishing to join a club should communicate with D. S. Waite, 4, Elmers End Road, Anerley, London, S.E.20.

Beckenham (Kent) M.C.—It is hoped shortly to establish a Club in Beckenham, and all boys interested should get into touch with S. D. Steele, 49, Kingshall Road, Beckenham, Kent. A Leader and a club room are urgently required.

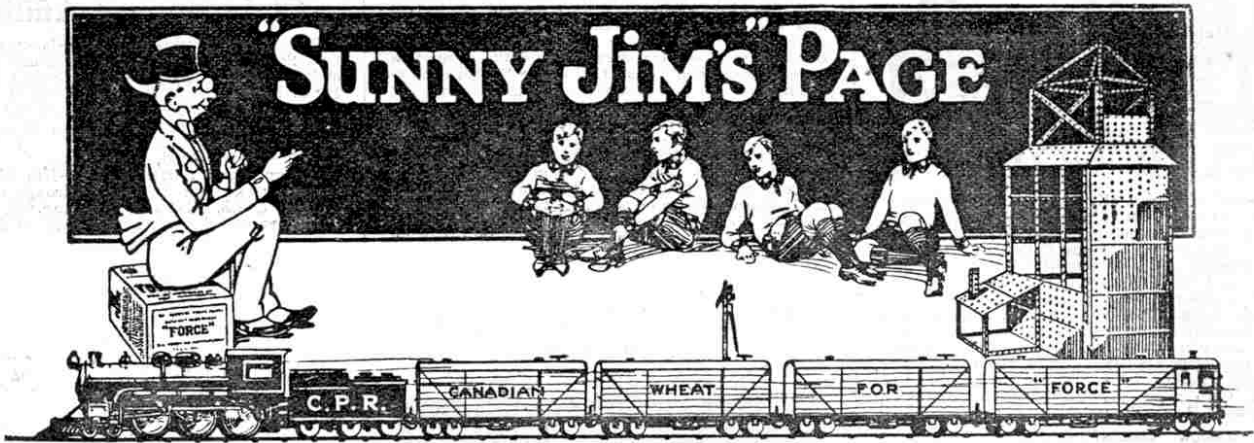
Trowbridge, Wilts.—It is proposed to form a Meccano Club in Trowbridge. A Leader and a room are urgently needed. Meccano boys interested please apply to N. Lillistone, 21, Park Street, Trowbridge.

Mayfield (New Zealand) M.C.—R. McIlraith of "Willowbank" Box 48, Mayfield, Ashburton, Canterbury, South Island, New Zealand, is endeavouring to form a club, and would be pleased to hear from any Meccano boy who would like to join.

Walsall (Staffs.) M.C.—Boys interested in Meccano and Wireless and wishing to form a club in Walsall are requested to communicate with G. Rogers, 43, Arundel Street, Caldmore, Walsall.

Rock Ferry (Cheshire) M.C.—S. Patterson, 39, Chatsworth Road, Rock Ferry, Cheshire, is endeavouring to form a club and wishes to hear from Meccano boys interested. An Adult Leader and club room are urgently needed.

Poulton-le-Fylde M.C.—Great efforts are being made by E. Watson, Gwaenyscor, Poulton-le-Fylde, assisted by his friends, to form a club. There are great hopes of obtaining an adult Leader and club room very soon.



LET'S GO KITE FLYING WITH SUNNY JIM

Kites! Holidays! "FORCE" and cold milk for breakfast. Kite flying on the common. "FORCE" and fruit at lunch. Kite flying in the park. "FORCE" and hot milk for supper. Plans for more kite flying as we drop off to sleep.

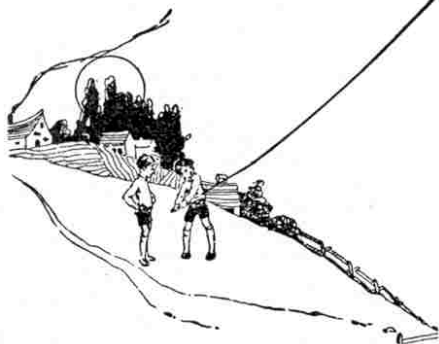
Yes, kite flying can be just as interesting as that, if you set out to make the most of this exciting pastime.

There's something wonderfully fascinating about a kite. All over the world boys have keenly enjoyed the tests of skill that come in the dexterous manipulation of the tugging kite line. Not anyone can fly a kite—properly. Its an art to be learned with patience.

You, perhaps, are already an adept, but if not, learn now the fun there is in this jolly pastime. You'll find it far more interesting than you ever thought. If you want a new kite at a bargain price send to me for the "Sunny Jim" kite (Follow directions given at foot of page). My picture in colours is on every kite. The "Sunny Jim" kite is 28 ins. high and 23 ins. broad and shaped as you see it in the picture.

With this kite and a good ball of twine you are equipped with everything you need. You have only to find a favourable wind.

Start on a day with a moderate breeze—not too strong, not too light, certainly not gusty.



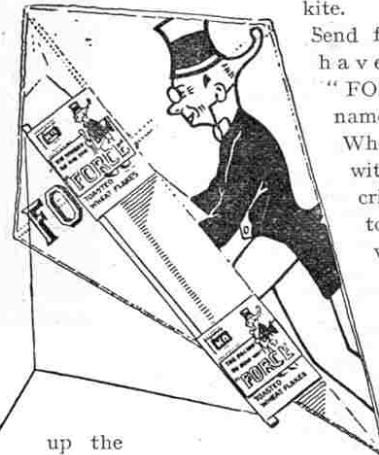
Adjust the balance of the kite by varying the position of contact between the line and the kite loop. Beware of letting out too much line at once. Gradually is the better way. As the kite rises to the greatest height the line allows, pay out more line, checking evenly as you do so to prevent the kite from losing height.

Soon you will have attained a good altitude and will be in readiness to run some paper windmills line. If they are fixed the wind will steadily right to the top.

If your friend has a "Sunny Jim" kite too you can have contests with these "line riders" and enjoy the thrill of citing finish.

Kite flying has long been popular with boys in Japan. They developed the game until it is a fine art. They have contests too, but of a different nature from those that interest us. When one Japanese boy challenges another, it is for a duel. Each manoeuvres his kite until he has his line crossing the other's in mid air. One then "saws" against his opponent's line until victory is won by the breaking asunder of one of the lines. The losing kite is usually recovered, though often only after a long run as the loser follows its erratic descent.

Simple contests as to whose kite can fly the highest or remain in the air longest without "crashing" will come first to mind, while an enterprising Meccano boy will soon devise lots of other interesting things to do with his "Sunny Jim"



up the properly carry them

kite.

Send for one now. If you have never tasted "FORCE" send your name for a free sample. When you try "FORCE" with milk or fruit the crisp crunchy flakes of toasted and malted whole wheat will soon make you decide to ask for the full size packet which costs 9½d.

"FORCE" needs no cooking at all.

That's another reason why mother will be glad to buy it for you!

reason why mother will be glad to buy it for you!

"FORCE" is that easy to serve, you could, without any trouble at all, get your own breakfast. Any Meccano boy can shake "FORCE" flakes from the "FORCE" packet. Any Meccano boy can help himself to milk or to tinned or stewed fruit. And of course, any Meccano boy can eat this most delicious of all dishes. He wouldn't want much persuading!! Neither would you! Not only is "FORCE" nice to eat but it is the food to build healthy strong bodies and keen alert minds.

Eat "FORCE" every day.

Your friend,

Sunny Jim

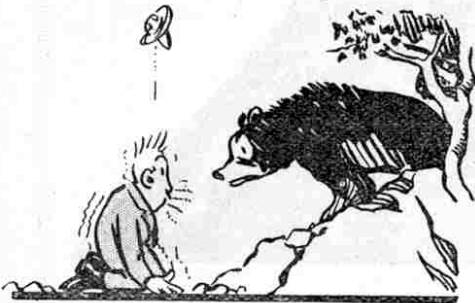
How to get the "Sunny Jim" Kite

Save the tops from two packets of "FORCE." Buy a 1/- postal order from the post office. Put the two "FORCE" packet tops, the shilling postal order, and your name and address in an envelope, marked "KITE" in the top left hand corner, and post to Sunny Jim, 197, Gt. Portland Street, London, W.1.



Fireside Fun

KEEPING COOL



Jim: "Did your brother keep cool when he met the bear?"

Joe: "Cool! He was so cool that his teeth chattered."

Little Tommy was eating an enormous tea at the Sunday School treat and the Vicar's wife was becoming really alarmed. "My dear lad," she expostulated, "you really must not eat any more or you'll be ill. You're too small to eat so much." "Well mum," replied Tommy, "I'm not so small inside as I am outside!"

NOT A PERMANENT CURE

Customer (to grocer): "That ham I bought from you is not good."

Grocer: "It can't be bad, it was only cured last week."

Customer: "Well, it may have been cured last week, but I reckon it's had a relapse since."

Doctor: "Did you follow my advice to count until you fell asleep?"

Patient: "I counted up to 18,000."

Doctor: "And then you fell asleep?"

Patient: "No, it was time to get up!"

At one corner of a block of shops in a certain American city a restaurant put up the illuminated sign, "Never Closed." Following this example a large drug store at the other corner put up the sign, "Open all Night."

In the middle of the block Wu Ting Ling had his small laundry. Not to be outdone by his big neighbours he also hung out an illuminated sign. It read, "Me wakee too."

Q. If a cannibal eats his father's sister, what is he?

A. An ant-eater of course.

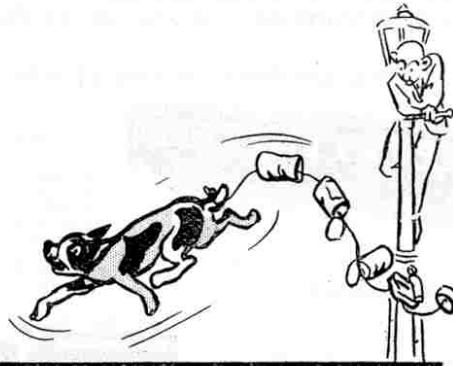
This Month's Short Story

Mary had a little lamb,
You've heard this tale before.
But have you heard
She passed her plate
And had a little more?

Bobby: "Mother, what are twins?"
Sister Margery (interrupting): "I know. Twins are two babies just the same age; three are triplets; four are quadrupeds and five are centipedes."

First Farmer: "What did you give your horse when he got the glanders?"
Second Farmer: "Turpentine."
Six months later they met again.
First Farmer: "What did you say you gave your horse when he got the glanders?"
Second Farmer: "Turpentine."
First Farmer: "Well, I gave my horse turpentine and he died."
Second Farmer: "So did mine!"

BROADCASTING!



"What did the poor little dog do when you bad boys tied the cans to his tail?"
"Oh, he just went broadcasting down the street."

Tom: "Bill, you want to keep your eyes open around here to-day."

Bill: "What for?"

Tom: "Because people will think you're crazy if you go about with them shut!"

Old Man (wandering round book shop): "Let me see, 'Last Days of Pompei'—what did he die of?"

Book Seller: "Some sort of eruption I believe."

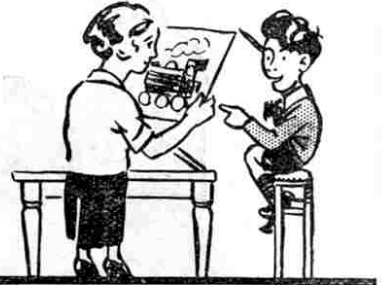
She: "Why does the car squeak so dreadfully?"

He: "Its the pig iron in the axles."

Charlie: "Frank boasts that no man living could forge his name to a cheque and get it cashed. Has he a very peculiar signature?"

George: "No, but he hasn't any money in the bank."

QUITE SO!



Mother: "What is this supposed to be, my son?"

Son: "A train, mother."

Mother: "But you haven't drawn any carriages."

Son: "Oh no, mother. The engine draws them!"

A man rushed into a restaurant. "I want two good eggs," he said, "and I want them bad."

Dobson: "At least once in my life I was glad to be down and out."

Robson: "When was that?"

Dobson: "After my first trip in an aeroplane."

Teacher: "Dear me, Jacky, how dirty you are! What would you say if I came to school as dirty as that?"

Jacky: "Please sir, I'd be too polite to mention it!"

One good turn deserves another. That's why our cat turns round three times before lying down.

RULES FOR HOTEL GUESTS

1. Guests are requested not to speak to the dumb waiter.
2. Guests wishing to get up in the morning without being called may have self-raising flour for supper.
3. Guests wishing to do a little driving will find a hammer and nails in the cupboard.
4. If the room gets too warm, open the door and watch the fire escape.
5. If you are fond of jumping, lift the mattress and watch the bed spring.
6. If your lamp goes out take a feather out of the pillow. That's light enough for any room.
7. Anyone troubled with nightmare will find a halter on the bedpost.
8. Don't worry about paying your bill, this house is supported by the foundations.

Q. When does a hen take matters most seriously?

A. When she's in 'er nest.

Jim: "Can you stand on your head?"

Joe: "No, it is too high up."

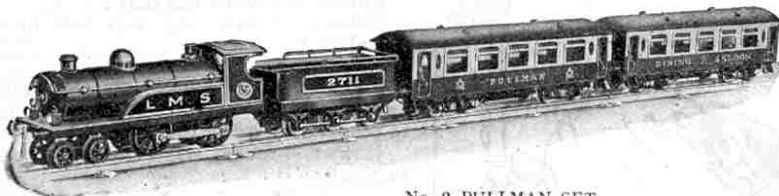
HORNBY CLOCK WORK TRAINS

THE TRAINS
WITH THE
GUARANTEE



YOU can have any amount of fun playing with a Hornby Train. Shunting, coupling-up the rolling stock and making up trains will give you hours of pleasure. Hornby Trains are beautifully finished, strongly made, and will last for ever. One of their most valuable features is that all the parts are standardised, and any lost or damaged part may be replaced with a new one.

Every train is guaranteed, and you are therefore sure of satisfaction if you buy a Hornby.



No. 2 PULLMAN SET

No. 2 Pullman Set

The No. 2 Loco with Tender measures 17 in. in length. The Loco is fitted with superior mechanism and the accurately-cut gears ensure smooth running. Loco, Tender and Coaches are superb in appearance and finish, enamelled in colours and stoved at a high temperature to ensure durability. The Loco is fitted with reversing gear, brake and governor.

Gauge 0 in colours to represent the L.M.S. or L.N.E.R. Companies' rolling-stock. Each set contains Loco, Tender and two Coaches, with set of rails to form a circle of 4 ft. diameter. Price 60/-.

No. 1 Passenger Set

The Loco is fitted with reversing gear, brake and governor. Loco, Tender and Coaches are superb in appearance and finish, enamelled in colour and stoved at a high temperature to ensure durability. The doors of the Coaches open.

Gauge 0 in colours to represent the L.M.S. or L.N.E.R. Companies' rolling-stock. Each set contains Loco, Tender, two passenger coaches and set of rails consisting of two straights and curves to form a circle of 2 ft. diameter. Price 30/-

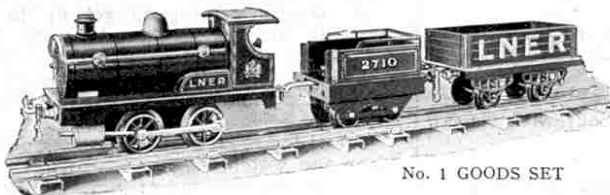


No. 1 PASSENGER SET

No. 1 Goods Set

Gauge 0 in colours to represent the L.M.S. or L.N.E.R. Companies' rolling-stock. Each Loco is fitted with reversing gear, brake and governor. Each set comprises Loco, Tender, one Wagon, and set of rails as in the No. 1 Passenger Set. Price 22/6

No. 1 Hornby Loco	Price 15/-	Hornby Passenger Coach	Price 5/-
" " Tender	" 2/6	No. 1 Hornby Wagon	" 2/6

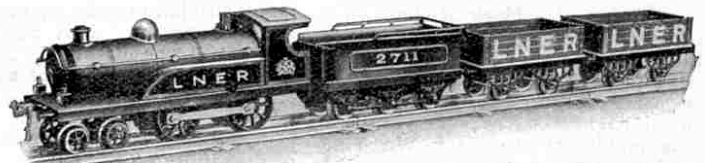


No. 1 GOODS SET

No. 2 Goods Set

Gauge 0 in colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. This set contains Loco, Tender and Rails as in the No. 2 Pullman Set, and two Wagons. Loco fitted with reversing gear, brake and governor. Price 37/6

No. 2 Hornby Loco ...	Price 22/6	Hornby Pullman or Dining Car ...	Price 15/-
" " Tender	" 3/6	No. 2 Hornby Wagon	" 2/6



No. 2 GOODS SET

Ask your Dealer to show you the Hornby Trains
MECCANO LTD., BINNS ROAD, LIVERPOOL

ROLLING STOCK AND ACCESSORIES

(HORNBY SERIES)

There are now 50 different train accessories—Stations, Signal-boxes, Lamps, Wagons, Level-Crossings, Foot-Bridges, Turn-tables, etc. Further accessories will be added to the system from time to time, and will be announced in the pages of the "M.M."

All Hornby Rolling Stock and Accessories are built in correct proportion to the size, gauge, method of coupling, etc., of the Hornby Trains and all have the uniformly beautiful finish that is the great feature of the Hornby series. With these accessories you can build up a most realistic railway system, and the splendid range of rails, points, and crossings make possible endless variety in rail layout. Hornby Trains are British made, and your dealer will be able to show you specimens of the new products.



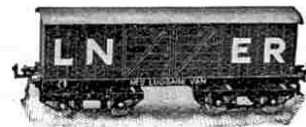
SIDE TIPPING WAGON
Excellent design and finish.
Price 3/6



No. 2 LUMBER WAGON
Fitted with bolsters and stanchions for log transport.
Suitable for 2 ft. radius rails only. Price 5/-



No. 1 LUGGAGE VAN
Representative colours.
Price 4/-



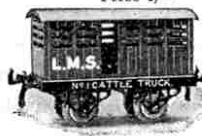
No. 2 LUGGAGE VAN
Finished in colour. Fitted with double doors. Suitable for 2 ft. radius rails only. Price 6/6



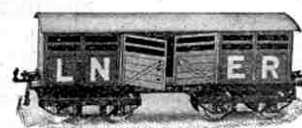
SECCOTINE VAN
Price 4/-



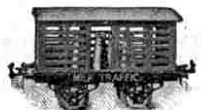
No. 2 TIMBER WAGON
Beautifully enamelled in colour and stoved. Suitable for 2 ft. radius rails only. Price 4/6



No. 1 CATTLE TRUCK
Fitted with sliding door.
Very realistic design.
Price 4/-



No. 2 CATTLE TRUCK
Splendid model fitted with double doors. Suitable for 2 ft. radius rails only. Price 6/6



MILK TRAFFIC VAN
Fitted with sliding door, complete with milk cans. Price 4/6



ROTARY TIPPING WAGON
Finished in colour.
Price 4/-



No. 1 LUMBER WAGON
Fitted with bolsters and stanchions for log transport. Price 2/-



HOPPER WAGON
Mechanically unloaded.
Finished in colour. Price 4/-



CEMENT WAGON
Finished in colour.
Price 4/-



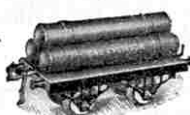
GUNPOWDER VAN
Finished in red.
Price 4/-



BISCUIT VAN
Price 4/-



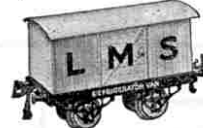
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Beautifully enamelled in colour and stoved. Price 2/-



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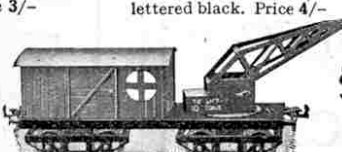
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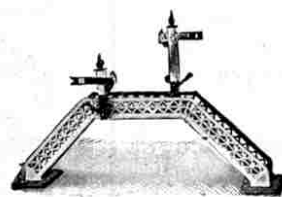
SIGNAL
Price 2/6



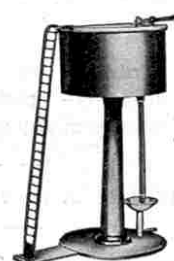
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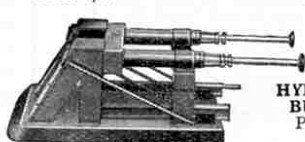
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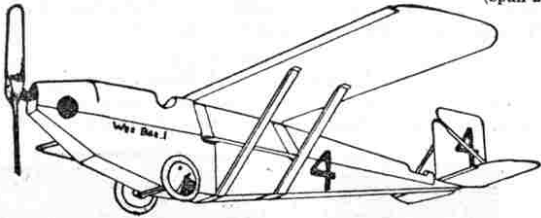


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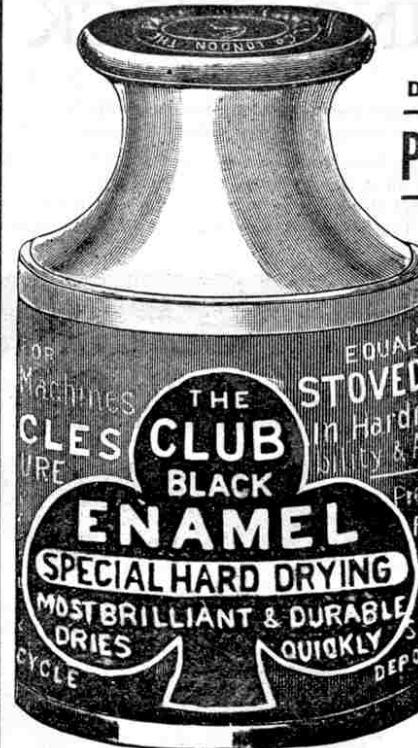
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Meccano Magazine,
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(4,000 ohms resistance).

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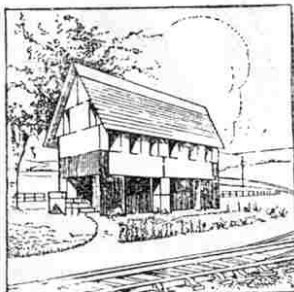
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OF
STONE

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Model from Box OA
Signal Cabin

"TUDOR BLOCKS"

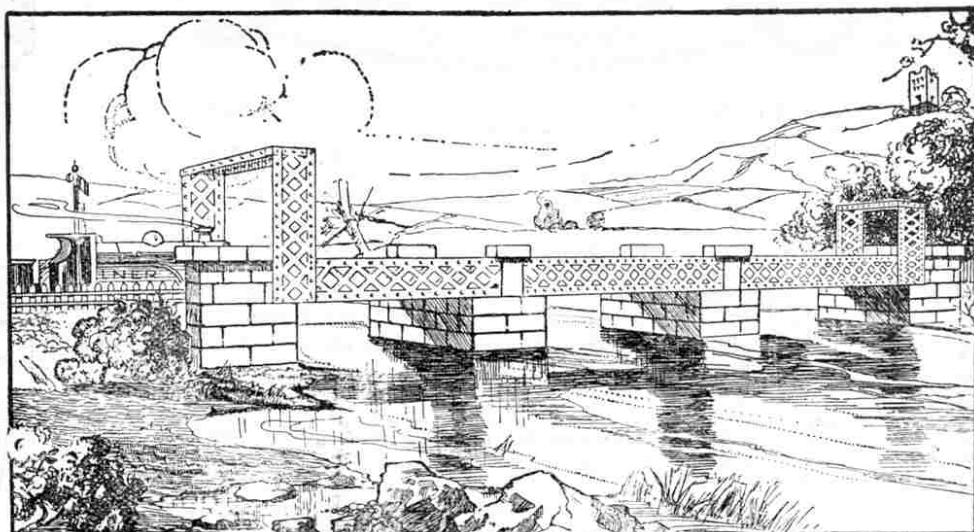
Box 1.	6 Models	...	3/6
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GARDEN SETS.

Box 1 contains Trees, Fences, Roofs, Shrubs, Shells, and Golden Sand	4/-
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A Model from Box 2
Tudor Blocks



A three span Girder Bridge constructed with stone bricks, girder and angle strips.

The bridge illustrated measures 3 ft. 3 in. in length, and can be adapted to carry one or more tracks of "O" gauge rails.

The brickwork is built with C's and E's, the middle piers with E's and F's, and the coping with D's, F's and H's. The metal work used is "Meccano."

Bridges of any style can be constructed to carry the heaviest type of passenger carrying model locomotives. The piers illustrated have been tested to carry weights of over one ton, although the stone work is only one inch in thickness. If desired, structures of this type can be permanently erected in the open, the bricks being cemented with a special preparation.

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(Write Clearly)

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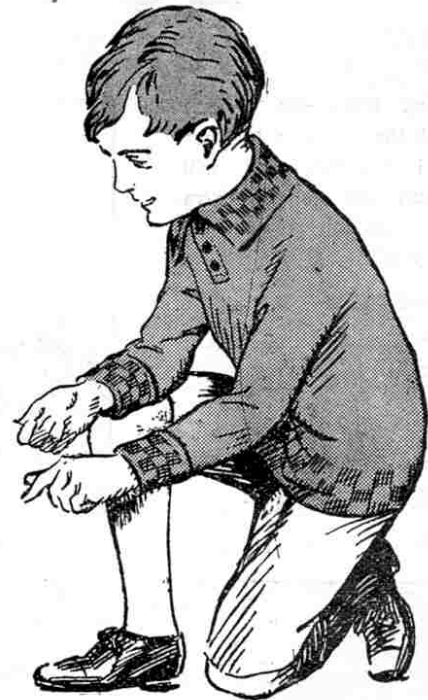
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THE TUBE OF

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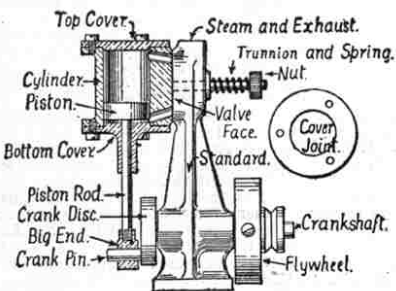


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The CABLE ACCESSORIES CO. LTD., Tividale, Tipton, Staffs.



"The Name for Perfect Radio"



EDITORIAL AND ADVERTISING OFFICES:—
BINNS ROAD, LIVERPOOL.
Telegrams: "Meccano, Liverpool."

Publication Date. The "M.M." is published on the 1st of each month and may be ordered from any Meccano dealer, or from any bookstall or newsagent, price 3d. per copy. It will be mailed direct from this office, 2/- for six issues and 4/- for twelve issues.

To Contributors. The Editor will consider articles and photographs of general interest; payment will be made for those published. Whilst every care will be taken of those submitted, the Editor does not accept responsibility for any loss or damage. A stamped addressed envelope should be sent where the contribution is to be returned if unacceptable.

Binding Cases. Spring-back Binders to take a number of "M.M.s" are supplied, covered with imitation leather and lettered in gold, price 3/- each (post free).

Meccano Writing Pads. Fifty sheets of tinted bank paper, each printed with Meccano boy at head, 1/- (post free) large size, and 6d. (post free) smaller size.

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Readers' Sales and Wants. Private advertisements (i.e., not trade) are charged 1d. per word, minimum 1/-. Cash with order. Editorial and Advertising matters should not be dealt with on the same sheet of paper.

Small Advertisements. 1/- per line (average seven words to the line), or 10/- per inch (average 12 lines to the inch). Cash with order.

Display. Quotations for space bookings, and latest circulation figures, will be sent on request.

Press Day, etc. Copy must be received not later than 10th of each month for publication in following issue. Half-tone blocks up to 100 screen.

Proofs of advertisements will be sent when possible for space bookings of not less than half-an-inch.

Voucher Copies. Sent free to advertisers booking one inch or over. Other advertisers desiring vouchers should add 4d. to their remittance and should order voucher copy at same time.

Remittances. Postal Orders and Cheques should be made payable to Meccano Ltd.

Obtaining the "M.M." Overseas

Readers Overseas and in foreign countries may order the Meccano Magazine from regular Meccano dealers, or direct from this office. The "M.M." is sold Overseas at 3d. per copy, or mailed (post free) direct from Liverpool, 2/- for six issues, or 4/- for twelve issues.

IMPORTANT

Overseas readers are reminded that the prices shown throughout the "M.M." are those relating to the home market. Current Overseas Price Lists of Meccano Products will be mailed free on request to any of the undermentioned agencies. Prices of other goods advertised may be obtained direct from the firms.

- CANADA: Meccano Ltd., 45, Colborne Street, Toronto.
- AUSTRALIA: Messrs. E. G. Page & Co., 52, Clarence Street, Sydney, N.S.W.
- NEW ZEALAND: Messrs. Browning Ifwersen Ltd., P.O. Box 129, Auckland.
- SOUTH AFRICA: Mr. A. E. Harris (P.O. Box 1199), Textile House, Von Brandis St., Johannesburg.

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Crowded Hours of Happiness for all the Children

The PEDAL FAIRYKAR

Regd. Trade Mark



Baby will love this Pedal Fairykar. There is nothing to beat it. It is beautifully painted a bright red with nickel-plated handle bar and stem, rubber pedals, etc. A splendid health-giving toy.

No. 4 as illustrated ... 15/-
No. 5 larger size with spider wheels 22/6



Look for the Triangle Trade Mark on all these toys

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As illustrated ... 27/-
THE METEOR, a larger size 34/6

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If only you had a FAIRYCYCLE just think what fun you could have, and what splendid exercise you would get in riding it.

The FAIRYCYCLE is a real Cycle—not a make-believe. It is beautifully constructed, runs with remarkable ease, and is SAFE because the low riding position makes it easy to control. And it is BRITISH. Price now reduced to 49/6.

49/6

The De Luxe Fairycycle

Specification includes 7/8" white ribbed cushion tyres, ball bearing tangent spoke wheels and rim brake.

Price only 61/6



OBTAINABLE FROM ALL GOOD TOYSHOPS

Sole Manufacturers:

LINES BROS. LTD., 9, FORE STREET, LONDON, E.C.2

An Open-Air Life this Summer!

GAMAGES

There is nothing like the open air for sheer enjoyment. Spend all the time that you can outdoors this Summer. Look at the dozen and one things you can do outdoors—Cycling, Photography, Camping—there's no end of suggestions at Gamages. Order to-day the splendid things we show below. You'll agree that you have never spent money better.



10/- down secures delivery, balance being payable in 10 monthly payments of 10/-

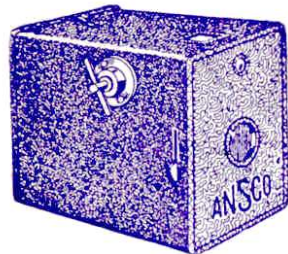
Going Touring? Ride a Gamage Popular!

Let this splendid bike carry you smoothly, trouble free, through the glorious country side. Finished with one coat of rust preventor, three coats of finest black enamel and lined in two colours. Complete with tool-bag, 2 spanners, £4 19 9 oil can, pump and pump clips. Price

HANDY TOURING BAG



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Order by post from this advertisement. Everything we sell comes under our famous money-back guarantee.

Order NOW

TAKE A CAMERA On Your Holidays

Gives splendid pictures, 2 1/2 by 1 1/4 (standard vest-pocket size film). Covered leatherine. Simple to load in daylight. Weight 8 ozs. Price 7/-

Films 1/2 per spool of 8 (any make).



Sundial & Compass

As illustrated. Polished hardwood base and lid, 2 1/2 in. diameter. Very easy to use, convenient for the pocket. Post free. Each 1/-



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The fascinating hobby of thousands of men and boys from the man with the racing yacht to the young beginner who has just launched his first model in the local pond. This model which we show is just the model which the fellow just starting needs. It is well finished, of the cutter pattern. 12 ins. long Post free. Price 4/11

Larger sizes 7/3 10/6 14/0



The Shoe You Want NOW

They can be doubled to fit in your pocket, without fear of cracking, are extremely light, cool to wear and do not hurt the feet. Made in white, black, brown and mottled grey uppers, they will outlast three pairs of ordinary plimsols. We call them "Winrubers." Boys' sizes 7-10, 5/6. Youths' sizes 2 to 5 7/4

4 BLADED POCKET KNIFE



Every fellow wants a pocket knife—here's one at the right price. Fine quality pocket knife in White, Stag or Imitation Pearl, 4 blades (3 ordinary and 1 nail), ivorine handles, brass lined, capped ends. Length 3 1/2 in. Post free. Price 2/3

Your Camping Holiday!

Go Camping this year, but make sure that your holiday is unspoiled. Use only the best equipment, it costs no more than cheap kit if you come to Gamages for it.



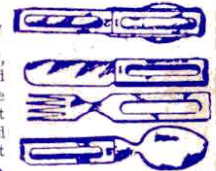
Paraffin Stoves

Reliable Wickless Paraffin Oil Stoves. Give powerful blue flame & intense heat. Will boil a gallon of water in 10 mins. Heavy gauge roarer burner. Price each 10/6 Carriage free.



New Scouts Billy

In one. A perfect boiler, roaster, drinking cup and plate. Note the sliding handle to frying pan. Every part fitted together and packed into a useful, neat, compact and perfect Billy-can 1/10 Postage 6d.



Knife, Fork & Spoon

All in one. Just think of all the space it saves in your kit bag. Best nickel plate. Post 3d. 3/11



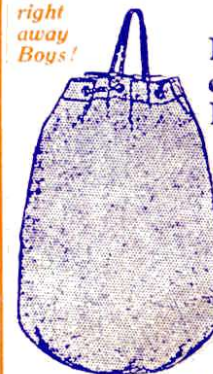
Warm Camp Blankets

Fine blankets that you will appreciate during cold nights at camp. 80" x 60", grey and brown. 6/9 Order right away! Boys!



Hurricane Lamps

Burns ordinary paraffin oil with a clear white light for ten hours at one filling. Size 7 1/2 ins. high and 3 1/2 ins. diameter. All parts easy of access. 3/6 Postage 6d.



Get Your Kit Bag!

Don't delay, camp isn't far off. Strong white canvas Kit Bag 2/11 as illustrated. Post 4d.

For Fun at Camp

Get a Periscope, grand things for field days, manoeuvres, etc., 22" long. Ex-Govt. stock, originally 42/- Handle unscrews. Post free. 5/-



A. W. GAMAGE LTD., HOLBORN, LONDON, E.C. 1.

City Branch: BENEFINKS, CHEAPSIDE, E.C. 2.

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