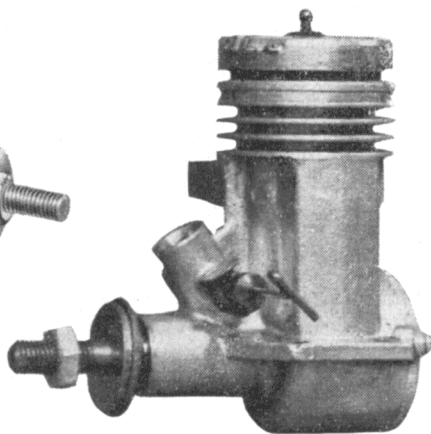
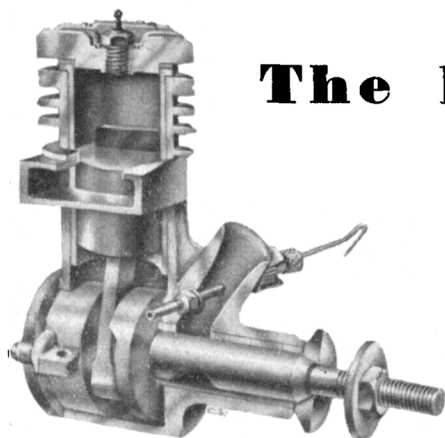


## The FOX 35



**A**LTHOUGH the engines tested this month are not available in this country, they should be of considerable interest as being the first American engines to appear in these pages; and for comparative purposes.

The Forster "29" is one of the "B" class American units, while the Fox "35" represents the lower priced "sport" power-plants. Both engines are remarkable for the high power-outputs and the high rate of revs. They were also, from my point of view, remarkable for the terrific, piercing whine which they emit when running flat out, so that I had recourse to cotton wool ear-plugs after being temporarily deafened in my enclosed test-shop!

### TEST

**Engine:** Fox "35" Glowplug.

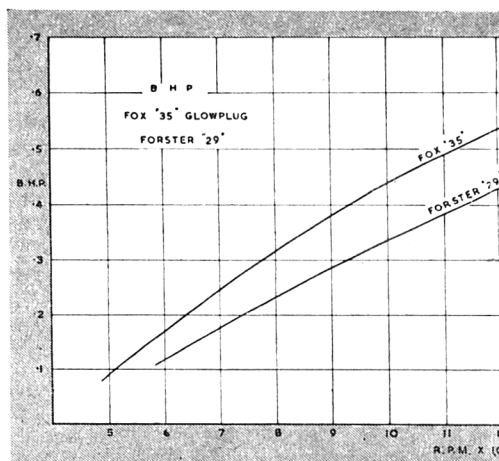
**Fuel:** "Mercury Super Racing Glowplug".

**Starting:** Extremely good at all times, both by hand and pulley-and-cord.

**Running:** Exceptionally smooth and flexible at all speeds from 4,000 to 18,000, but happier above 10,000 r.p.m. than below it.

**B.H.P.:** A maximum output of .623 b.h.p. was recorded at around 15,000 to 15,800 r.p.m., but the curve at this point is so flat that the exact point was difficult to determine. B.H.P. drops steeply after 16,000 r.p.m. It is interesting to note that at 5,000 r.p.m. the output is only one sixth of maximum.

**Checked Weight:** 5.75 ozs. (less tank). For some remarkable reason the maker's leaflet gives 7 ozs. as the weight.



## ENGINE A

by LAWRENCE

**Power/Weight Ratio:** 1.735 b.h.p./lb.

**Remarks:** The astounding power/weight ratio of this engine will be noted. Engine was run-in for one hour at 4,000 r.p.m., but there were signs of frictional losses at the highest speeds, due, probably, to the use of plain bearings.

### GENERAL CONSTRUCTIONAL DATA

**Name:** Fox "35".

**Manufacturers:** Arnold & Fox Engineering Co., 7401 Varna Ave., North Hollywood, California, U.S.A.

**Retail Price:** \$11.95.

**Type:** Glowplug.

**Specified Fuel:** Castor Oil 33%, Methanol 25%, Nitro Methane 42%.

**Capacity:** 5.75 c.c., .35 cu. ins. **Weight (bare):** 5.75 ozs.

**Compression Ratio:** 6:1. **Mounting:** Beam.

**Bore:** .800 in. **Stroke:** .700 in.

**Cylinder:** One piece steel liner in alloy barrel.

**Cylinder Head:** Alloy, attached by 4 screws.

**Crankcase:** Gravity alloy casting.

**Piston:** Mehanite, plain, "Straight fence" baffle."

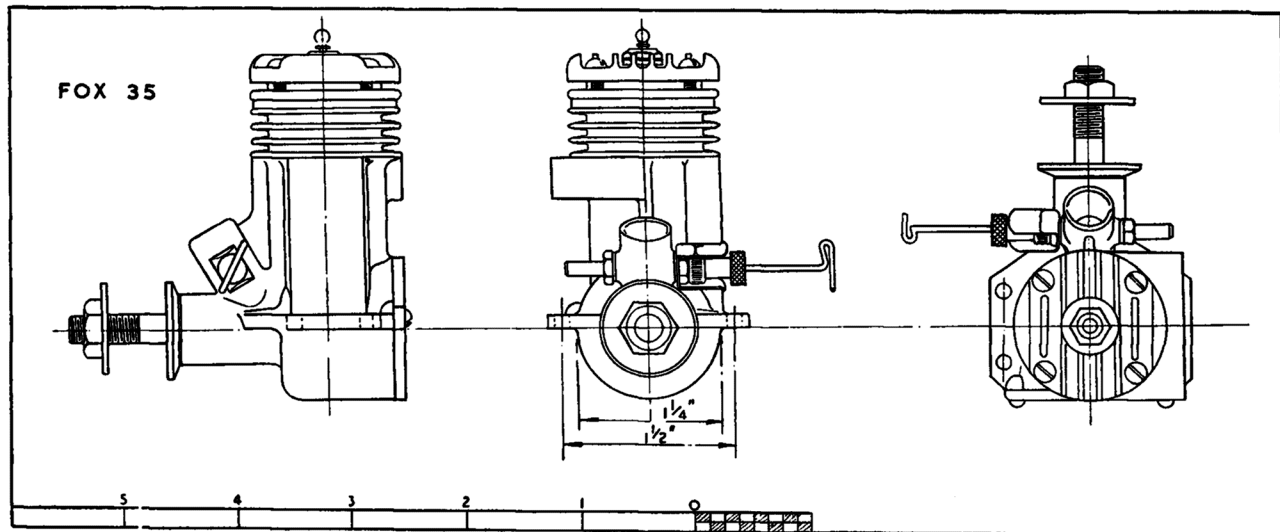
**Connecting Rod:** 17 S.T. Aluminium alloy.

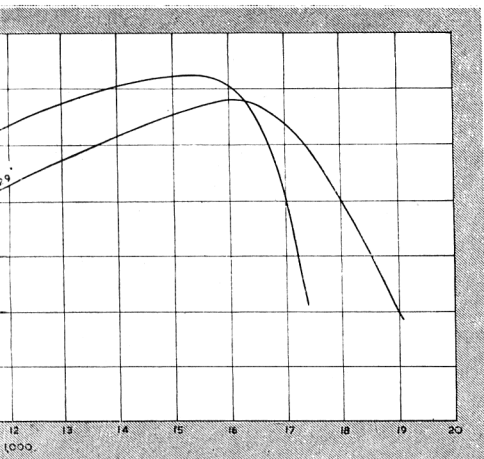
**Crankpin Bearing:** Plain. **Crankshaft:** Steel.

**Main Bearing:** Bronze.

**Crankshaft Valve:** Rotary Shaft.

FOX 35





## ANALYSIS

E. H. SPAREY

### TEST

**Engine :** Forster "29" Glowplug.

**Fuel :** "Mercury Super Racing Glowplug".

**Starting :** Remarkably good at all times. When used with gravity feed tank, crankcase flooding was evident; no trouble when changed to suction feed. Throttle control apt to be sensitive.

**Running :** There is nothing but praise for the running qualities of this engine at all useful speeds.

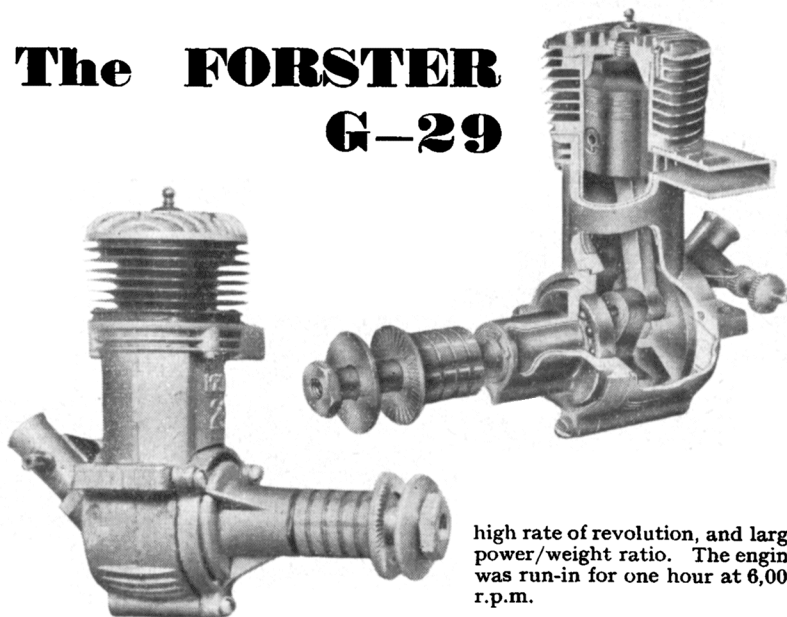
**B.H.P. :** This engine corresponds to the usual 5 c.c. type, and the remarkable figure of .580 b.h.p. at 16,200 r.p.m. speaks for itself. The most useful speeds lie between about 15,000 and 16,600, as the drop from maximum between these points is only .02 b.h.p. Output drops fairly steeply each side of these speeds.

**Checked Weight :** 6½ ozs. (less tank).

**Power/Weight Ratio :** 1.43 b.h.p./lb.

**Remarks :** Here, again, the high power/weight ratio will be noted, and although not so high as that of the previous engine it must be remembered that the Fox "35" is of somewhat larger capacity, and that power/weight ratio usually favours the larger engines. Most notable features of the Forster are the high power-output, the phenomenally

## The FORSTER G-29



high rate of revolution, and large power/weight ratio. The engine was run-in for one hour at 6,000 r.p.m.

### GENERAL CONSTRUCTIONAL DATA

**Name :** "Forster G-29"

**Manufacturers :** Forster Bros., Lanark, Illinois, U.S.A.

**Retail Price :** \$11.75.

**Type :** Glowplug.

**Specified Fuel :** 37½% Methanol, 37½% Nitro Methane, 25% Castor Oil.

**Capacity :** 4.86 c.c., .297 cu. ins.

**Weight (bare) :** 6½ ozs.

**Compression Ratio :** 10 : 1.

**Mounting :** Beam or Radial.

**Recommended Airscrew :** 10×6 to break in, 9×6 for stunt, 7×9 narrow blade type for speed.

**Bore :** .750 in. **Stroke :** .6718 in.

**Cylinder :** One piece with fins, attached by 4 screws.

**Cylinder Head :** Aluminium Alloy, attached by 6 screws.

**Crankcase :** Aluminium Alloy pressure die-casting.

**Piston :** Aluminium, high baffle, two rings.

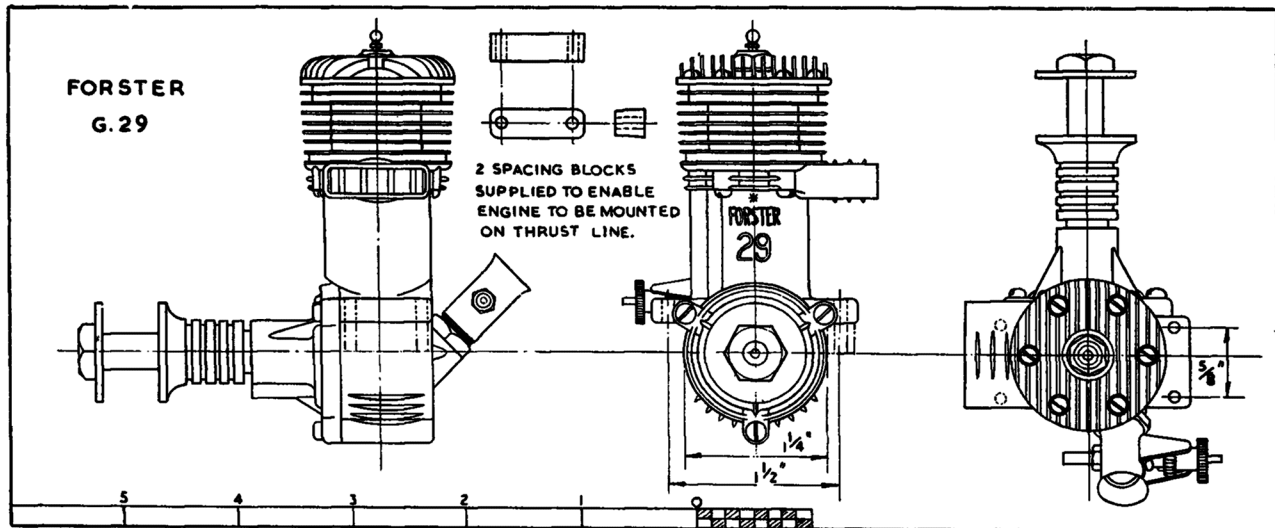
**Connecting Rod :** Aluminium Alloy, Oilite big end bearing.

**Crankshaft :** Alloy Steel, hardened and ground.

**Main Bearing :** Ball-bearing to take radial and thrust loads.

**Induction Valve :** Rear rotary disc valve.

**Special Features :** Down-draught carburettor, thrust ring on crankshaft to prevent damage to rotary valve.

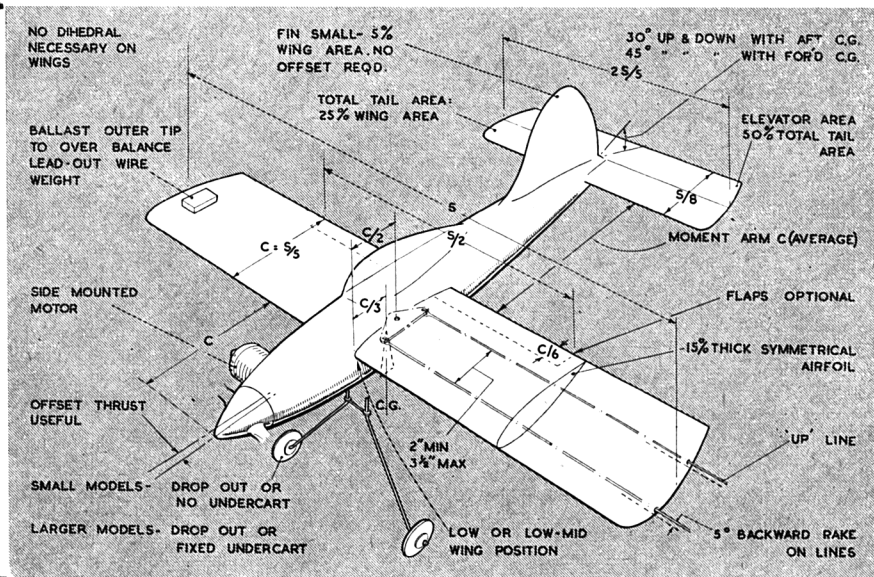


# It's DESIGNED for YOU!

NUMBER FIVE

## CONTROL LINE STUNT MODELS

PART ONE



**C**ONTROL line stunt design has come a long way in the past year or so. In general, the stunt performance of any good modern design is limited only by the skill or ability of the pilot, whereas it was only some three years ago that a model which could perform a loop and fly inverted was regarded as something of a rarity. Nor has this advance been achieved by any revolutionary design changes, but rather by modification and near-perfection of detail design features.

A stunt model nowadays must be capable of performing "everything in the book" in the hands of a capable pilot. Otherwise it simply is not a stunt design. The original Millsbomb, for example, which Mike Booth flew at the 1948 Nationals at Northampton, was then an outstanding stunt model. It was one of the first aerobatic models utilising such low power as 1.3 c.c. capacity diesel motor. Yet this model could only perform single loops. It would stall or mush at the end of the first loop if consecutive loops were attempted. Yet the difference between this model and the Millsbomb II which will perform consecutive loops is relatively small.

Pete Cock first convincingly demonstrated that the smaller capacity diesel motors could be used for a complete aerobatic range with a small size model. As most enthusiasts will remember, he won the stunt event at the same Nationals with an E.D. II powered Kan-Doo profile-type model, quite contrary to the popular belief that one of the West Essex 10 c.c. powered lightweight "boxcars" was the "cert" winner.

Den. Allen's original "Boxcar" was typical of the early trend of fully aerobatic stunt models in this country, with fairly low wing area (336 sq. ins.), but extremely light weight (27 ounces) for the size of motor employed—a 10 c.c. Super Cyke or Ohlsson "60". Wing loading was therefore only 8 ounces per 100 sq. ins. wing area and, equally significant,

power loading was as low as 2.7 ounces per c.c.

Light wing and power loadings subsequently formed the basis of almost all the successful stunt models later produced in the smaller sizes, and these, as everyone knows, have been outstandingly successful. We had, in this country, a considerable number of light, small-capacity motors in the range of 1 to 2 c.c. diesels, and as a consequence most designers concentrated on the smaller class of model, with somewhat lower wing loadings than that of the original "Boxcar", but rather higher power loadings. From this have developed larger models with bigger and more powerful motors as the range of British commercial motors has extended and the days of the small model appear to have passed.

With this development, too, designs have tended to become much more refined. The purely functional layout of many of the earlier successful stunt models has given way to a more attractive appearance. Quite a number of modern stunt designs, in fact, truly fall into the category of semi-scale machines, provided some allowance is made for the fact that certain features, such as large wing area, are a necessity. The functional design, of course, still remains, but it has been proved that reasonably good lines are no handicap as regards performance.

Probably one of the most marked trends in the design layout of stunt models has been the shortening of the moment arm. The moment arm is, strictly speaking, the distance between the centre of gravity of the model and the centre of pressure of the tailplane, but for all practical purposes the standard of measurement adopted is to measure moment arm as the distance between the trailing edge of the wing and the leading edge of the tailplane. This, in many of the early models, was frequently twice the wing chord, but it was soon found that decreasing this moment gave a model with a much

TABLE I. AERODYNAMIC DESIGN

Motor c.c.	Wing Area (sq. in.)	Span	Chord	Section	L.O.A.	Moment Arm	Tail Span	Tail Chord	Tail Area	Elevator Area	Section	Undercart
1	125	25	5	15% Symm.	16	4½	10	3	30	15	Flat Plate	None
1.5	180	30	6	"	22	4½	2	4	48	24	"	Drop-out
2.5	300	40	7½	"	26	6½	16	5	80	40	"	"
3.5	360	43	8	"	28	7	18	5	90	45	"	Fixed
5	400	45	9	18% Symm.	32	8	18	5	90	45	"	"
10	600	57	10½	"	36	10	24	6	144	70	"	"

smaller looping radius. This started a design trend, through which the moment arm has virtually disappeared and the tail-plane starts some very small distance behind the wing—Fig. 1.

Parallel with this development, too, wing areas increased proportionately, so that the short-coupled stunt model, which has become so popular today virtually compromised between a flying wing and a more orthodox layout. The flying wing layout, which virtually required only one more step, also enjoyed a vogue, but exaggerated some of the undesirable features which had begun to show up with the short coupled designs. These will be discussed in a moment.

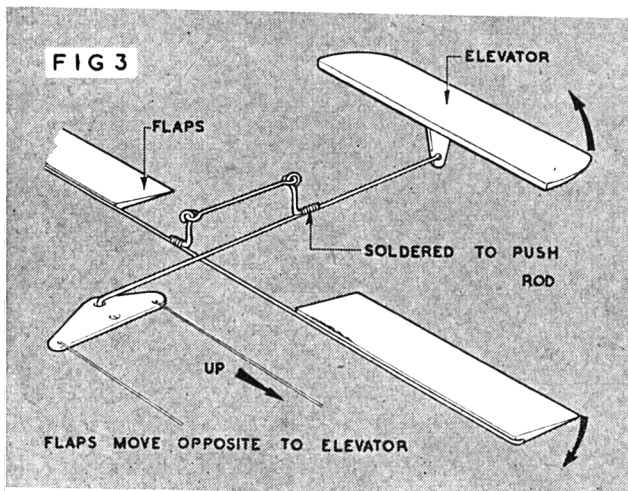
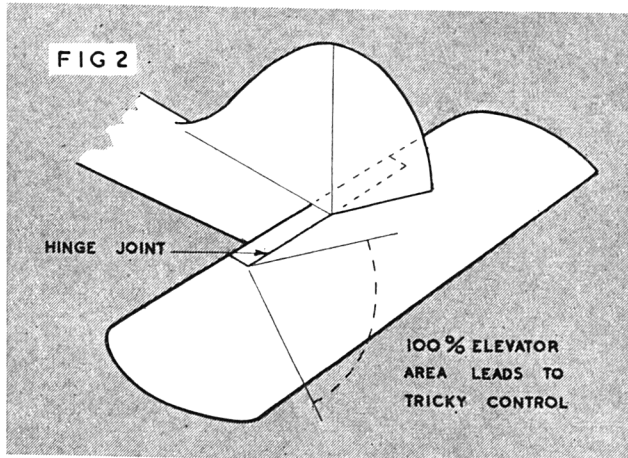
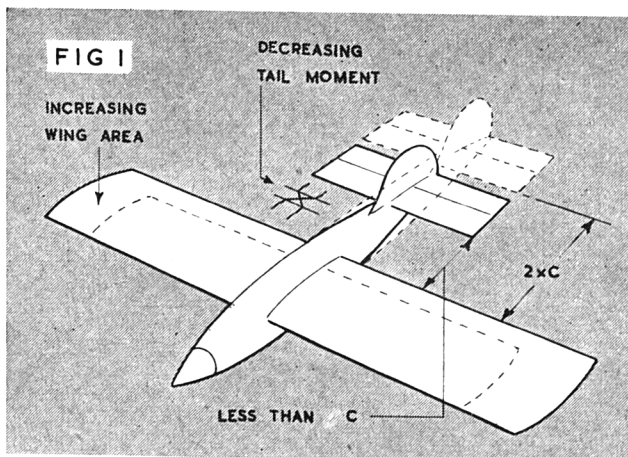
Most of the original design development work was directed towards making the model more manoeuvrable, and, in particular, reducing the looping radius. Shortening the moment arm and using large elevator areas and large movement certainly did this, but at the same time did not produce an entirely satisfactory state of affairs. Although models might now loop in a very small radius, there was a definite tendency for them to stall or mush at the bottom of a loop, or even on a sharp pull out from a dive, and consecutive manoeuvres often required considerable skill in flying the model round all the time. In other words, it was readily possible to overcontrol the model and get it into a stalled condition where, with both wings and propeller stalled, the model just hung in the air and there was a very definite danger of losing control altogether. This was well illustrated by some of the designs which appeared with all the horizontal tail surface area movable, i.e. a 100 per cent elevator area. There was no doubt that such models responded rapidly to control movement, but the response was often so rapid that they were often very difficult, or even impossible, to keep under control at all. Mushing or stalling on a pull out from almost any manoeuvre was common and few models now attempt to get rapid control response by exaggerated elevator and angular movement.

However, a very effective way of combating "mushing" has been found—the use of small wing flaps coupled to the control system and working with the opposite angular movement as that of the elevators. In other words, when elevators move "up", the flaps move "down". Combined flap and elevator control of this nature has proved particularly effective and although their aerodynamic action is not fully understood they can vastly improve the performance of an otherwise "tricky" stunt model. Probably the first well-known use of flaps was on Bob Palmer's "Go-Devil" design (American), although the idea of using flaps as ancillary stunt controls was suggested some considerable time ago by H. J. Thomas. Notable British designs employing flaps and elevator control are Hewitt's "Stunt King", 1949 Nationals winner, and Phil Smith's range of Veron flying scale kit models. Details of a typical method of linking up the controls are shown in Fig. 3. A flap area of about two thirds of the elevator area appears to give the best results, the flaps themselves being of narrow chord. Full span (narrow chord) flaps have been tried on some designs with positive results.

At the same time, stable design layouts have often proved equally as ineffective as overcontrolled designs, although for just the opposite reason! A number of flying wing designs, for example, were based on a stable, swept-back planform when it was found that with the forward C.G. position considered safe for maintaining line tension, they were just too stable for small radius manoeuvres. In other words, they resisted displacement and automatically tended to open up any loop induced by elevators or equivalent controlling surfaces. About the only satisfactory way to make such models perform as stunt designs was to reduce their margin of longitudinal stability by moving the C.G. aft.

This has proved a particularly significant point. As we know now, line stability obtained by using a forward C.G. position opposes manoeuvrability and "playing safe" in this respect automatically opens up the looping radius of the model, however powerful the controls. A forward C.G. position, in other words, tends to act against the controls.

Thus, provided the loading figures for the design are reasonable, i.e. sufficient wing area per c.c. motor capacity, with low wing and power loadings, designs with a reasonable moment arm can be made very manoeuvrable, with proper location of the control plate and C.G. position. Furthermore,

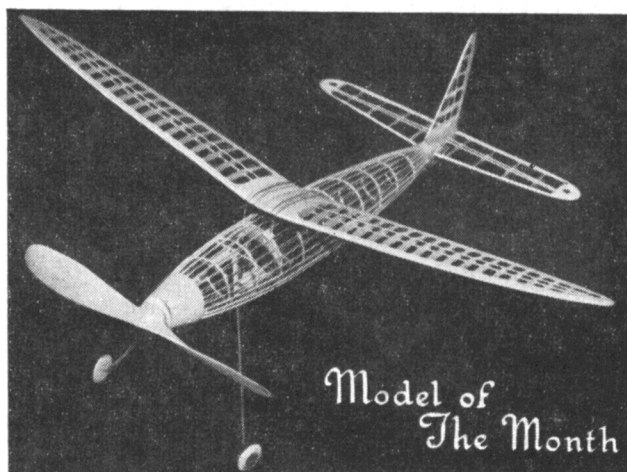
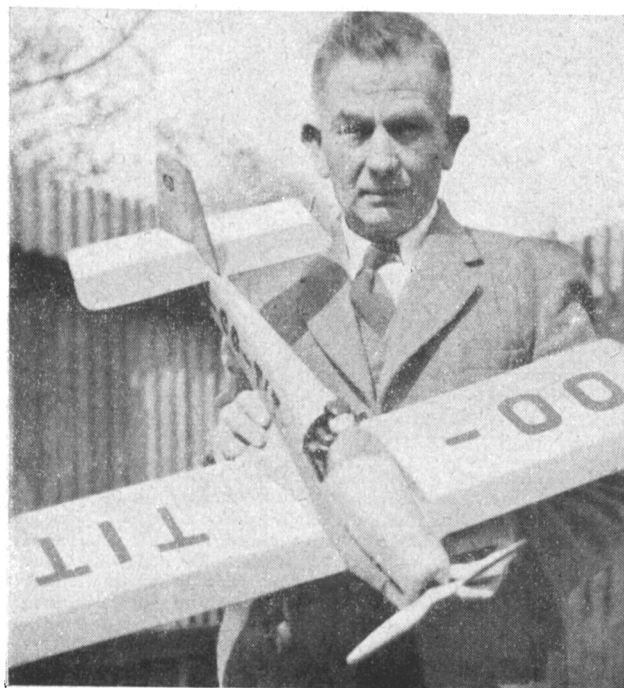
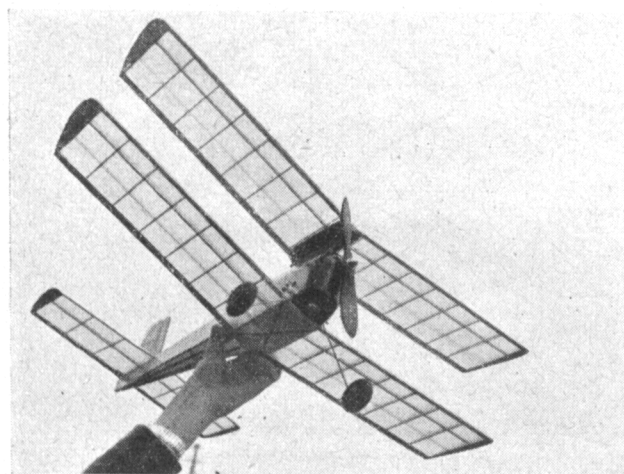


such models will then require less elevator power for manoeuvrability and there will consequently be much less risk of stalling or mushing on sharp pull-outs.

As far as generalisations can go, these desirable conditions are realised with the pivot point at about 50 per cent of the wing chord with the C.G. then as far aft as possible without running into the trouble of lines slackening off. With the C.G. too far aft the model will tend to come in on the lines all the time. If too far forward, manoeuvrability will be reduced. Similarly, line stability will be lost if the pivot point is placed too far aft.

(Continued next month.)





**T**HAT thorny rule which calls for dummy pilots in team racing was taken to task when Fliar Phil last duelled for survival with his scale racer. Working on the age-old theory that all's fair in love or war, we dressed "Skweeqs," our pet field mouse, to pilot the Morane and trained him to knock out Fliar Phil's competitors with his (or her's, we don't know yet) play bricks.

Elliptical winged streamliners are an uncommon change from the functional squared-up layouts, and the pick of the month from F. P. photo file is Derrick Exley's (Barnsley) 1949 Wakefield. Made entirely from 1/32 sheet and  $\frac{1}{8} \times 1/16$  in. strip balsa, its flying weight totals 9½ ozs.

C. M. Tremlett of Exeter submits a 1/100 at 6·3 (H.P. 3) photo of his Mills 1·3 version of the ever-popular Sporty biplane. Fully cowled, the Mills is mounted on short bearers to convert the fuselage for beam mounting. The original Sporty was designed for radial motors and F. P. is pleased to be able to present a photograph of Sporty with beam mounting for the guidance of the many anxious enquirers who are continually writing for beamed details.

Lower left is Freeman Burfitt of Taunton, Somerset, with his A.P.S. Topsy Junior. Mr. Burfitt retired from the police force four years ago and recently took up aeromodelling in a big way—he now has seven stunt models! Approaching his 60th birthday, Mr. Burfitt quite rightly says, "Should any retired fellow be looking for a hobby, then model aeroplane building and flying is just the thing."

A 53-in. span version of the Miles M.14A Hawk Trainer is shown below with owner builder S. W. Smith of London, E.18, about to launch. Powered by a Mills 1·3, it is covered with nylon and is a regular Sunday flier at Fairlop aerodrome. Mr. Smith based the design on AEROMODELLER "Aircraft Described" No. 12, and thanks to the incorporation of a pendulum rudder, reports thrilling realistic flights.

Another Mills 1·3 model, this time a yellow and black



Dervish by R. A. Adams of New Eltham, is shown below. For the benefit of interested photographers, the picture was taken by an Automat Rollicoflex, 1/150 at F.11, with super XX film and orange filter.

Top right, F. P. presents a solid from way over at Inglewood, California. Sent by Bill Kee, this 1/48 scale model of the Transcontinental D.H.4 is carved from pine and is Bill's "Pet ship." These planes were used in the 1924/26 period for mail carrying across the United States.

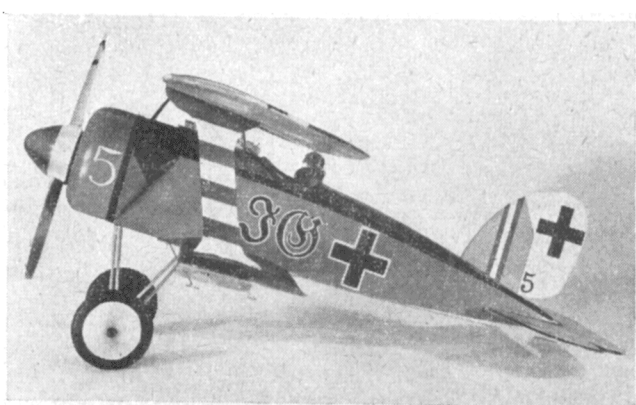
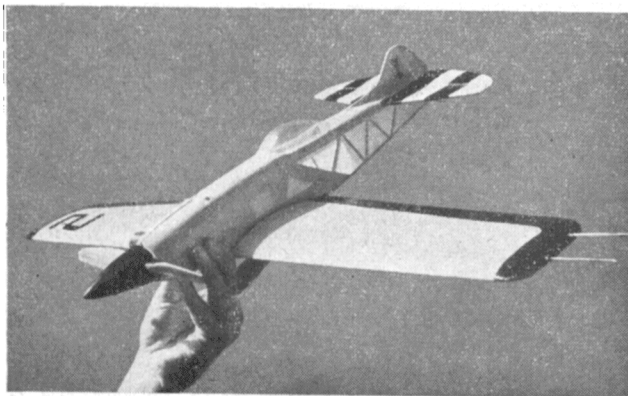
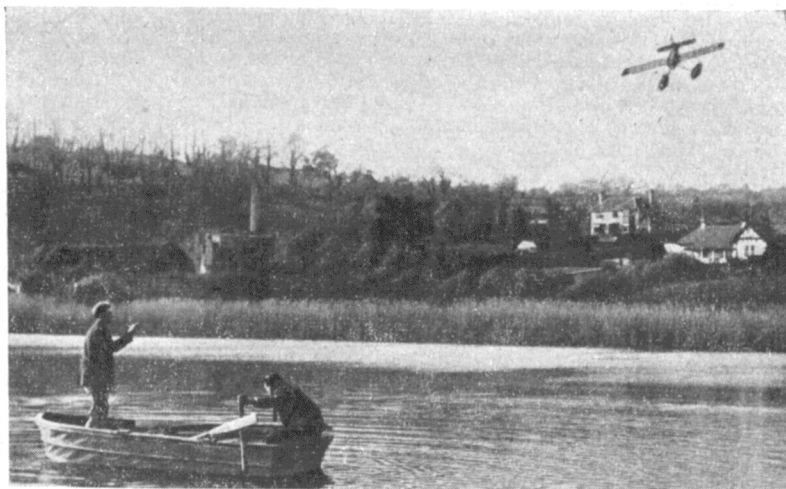
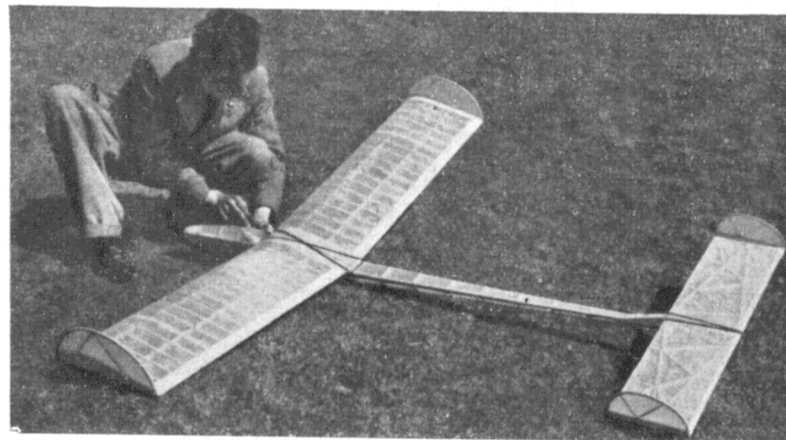
N. Osbourne of Belfast sends the picture at right of H. Stephenson with his 6 ft. span Sailplane. By using a green filter, the all-white model is reproduced in a natural tone against the verdant Irish grass. Showing Sunnanvind influence, the model features a flat tailplane and a long moment arm.

Fliar Phil thought he had tried everything on lines until K. Glanville of Falmouth submitted the picture at right of two Falmouth men out on Swanpool mere. There's no running back when the lines are slack, unless, of course, the oar-artist is sharp off the mark—and what happens when the motor cuts when flying inverted, should be very interesting! Over-water control line flying calls for waterproof lines—and the kind that float; just imagine getting the wires caught up in a sunken bedstead when taking off!

Lastly, but by no means the least interesting this month, is an unusual selection for scale control line. Built and photographed by John Garwood of Carshalton M.A.C., it is a 1/12 reproduction of the 1918 German Albatros DXI Scout Fighter. Model weighs 15 ozs. and has a Mills 1.3 engine. This slab-sided and simplified version of the famous Albatros Fighter was never used in the '14-18 war, and is an ideal subject for scale stunt with its simple strutting and slab-sided fuselage.

And having given you his selections for August, Fliar Phil pushes back the soap-box and grabs the tackle for another practice session with the team racer. Having overcome the pilot rule, with noble "Skweeqs," F.P. is now concentrating on a new fuel system with a special centrifugal valve.

So, as the Morane circulates and the field-mouse does his worst on the enemy, the valve is opened by the whirling brick theory and bingo! — unlimited fuel supply from hidden auxiliary tanks.



# CONTINENTAL JOURNEY

*May 13th - May 30th, 1950, on which our Staff correspondent Ron Moulton visits Switzerland, Italy and France to attend three major Continental contests.*

## Concours International Suisse de Vol Circulaire

**O**RGANISED by the Aero Club of Geneva (Model Section) under the direction of hard-working Georges Vallet, the 3rd Annual International, held at Geneva Airport, provided a higher standard of contest flying than we have hitherto been privileged to see in Great Britain.

Georges Vallet had neglected his modelling activities for two months in order to run this event in the traditional Swiss-perfect manner. From benefactors and aviation enthusiasts he cajoled about £50 in cash, and with this money and traders' support he presented an extremely interesting prize list. Invitations were sent to National organizations but only the French managed to send a representative team. Having selected their men from the winners of the French Control Line Nationals held on the 7th May they were thus able to provide strong opposition to the Swiss, who were battling on their own ground.

The ground was, in fact, a modern compass base at the extension of a runway. The surface was concrete and its only disadvantage was that the 10 c.c. models were forced to clip their lines to approximately 56 feet. Only one circle was available. Flying was continuous throughout the day. There were only 4 false take-offs in the speed competitions and the only casualties of the day were the Stunt models in the hands of over-ambitious fliers. These figures will help to show the efficiency of the Continental Speed fliers.

### Stunt.

The stunt event allowed 3 flights to each entry, the best of the three flights being considered for final placing. The winner of this competition, Senn of Schonenwerd, flew smoothly and with expert movements throughout the unusual schedule, which included consecutive square loops from inverted and all the manoeuvres included in the S.M.A.E. schedule. His modified lightweight version of the Stunt-wagon 30 was powered by a new Swiss motor, the Kastor, which is extremely similar to the Elfin 249. During the West Essex control line tour of 1949 we were able to teach



Meier, the second man, how to loop, and this year he was able to pip us to third place in the competition. Meier taught Senn, and both are to be considered up to Gold Trophy finalist standard. After ourselves at 3rd place the French entry came 4th with a model designed for transportation on continental railways. The wings were detachable from an "A" frame fuselage, the engine was attached on the field, and the fuselage, undercarriage and tailplane assembly appeared to have been recently stuck together. Powered by a Redhead Micron 28 engine with at least 10° offset, this and other French models flew at approximately 30 m.p.h. and formed a complete contrast in Stunt flying to the other considerably faster models. The looping radius of the French models could not have been more than 5 ft. Other Swiss entries in the Stunt contest included American kits, in particular the Warrior and Stunt Wagon, and an interesting Dooling 29 model with inverse taper on the wing. It was obvious that the tuition gained from the W.E.A. visit of 1949 proved invaluable to the Northern Swiss boys who were able to romp through their manoeuvres whilst the Geneva Club entries were frequently in Balsa-rendering difficulties.

Prizes in the Stunt were, 1st a gold chronograph stop/wrist watch, 2nd—a wrist watch, 3rd—a 1950 model McCoy 29, 4th-8th place—choice of 4 kits or Jetex.

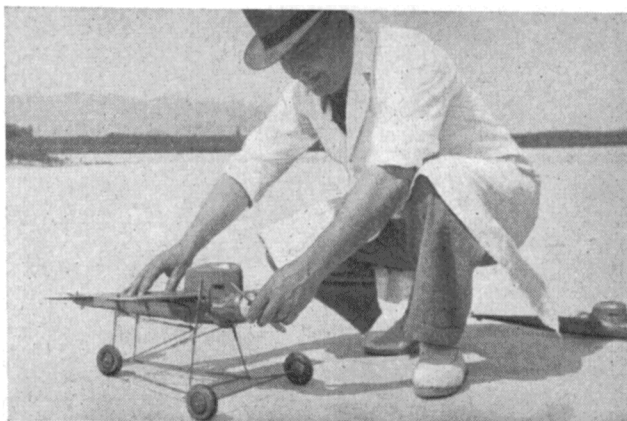
### Speed 5 c.c. Class.

Flown on approximately 50 ft. lines this contest would have really interested the English boys who have been trying so hard to make a success of this class for such a long time. It is interesting to note that the first 4 places were taken by models powered with Meteore-Maraget 5 c.c. Glow-plug motors. The winning speed of 118 m.p.h. by Robert Labardé of Paris was more than ordinarily impressive. We particularly noticed that all of the French entries, which were extremely similar to the Little Rocket design, flew with the wing inclined in a bank towards the centre of the circle, and

*Below: European and French Champion, Robert Labardé, with his Maraget 5 c.c. speed model. Engine detaches with a small nose pod, leaving a one-piece fuselage, wing and cawling assembly. Hardwood fuselage, two wheel under-carriage.*



*Below: French 10 c.c. Champion, Dr. A. Millet, prepares his McCoy 60 series 20 model for its fourth flight ever (132 m.p.h.). Composite ply and balsa structure, weight 24 ounces, flywheel spinner, 9" x 11" propeller.*





At left : While a Swiss Airport official makes sure the Sabena Dakota does not "slipstream" the contest, Roger Meuwli awaits his turn in the stunt circle with his interesting Dooling 29 profile model.

Right : Meuwli's 10 c.c. speed entry also had inverse taper, with a difference! 1950 Hornet motor, metal conical rear fuselage, lines enter wing guides as one — a very light and very fast model.

some flew in a clockwise direction. The 2nd man, Devillers, also of Paris, (112 m.p.h.) flew throughout the contest for all of his flights with slack lines! After one take-off his model flew for 2 laps within the circle before adopting a reasonable tautness on its lines. Every take-off in this event was sharp and snappy.

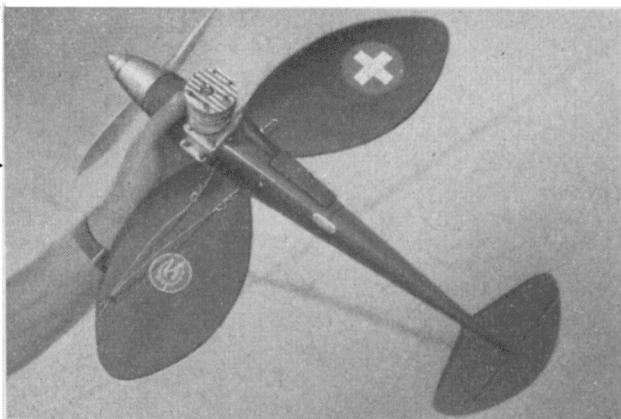
To complete the French coup in the 5 c.c. event, Dr. Millet of Belesta came 3rd with 95 m.p.h. and Jean Beyssak of Lyons, 4th with 85 m.p.h. The French would be the first to agree that this class is the most difficult to choose if one wishes to achieve a fair measure of success in speed flying. The Maraget engine used by Labardé has been in service for over a year and has in its time won competitions at Lyons, Bordeaux and Monaco and the French Nationals. It has twice recorded 131 m.p.h. at French contests though not with the use of the Pylon. However, Monsieur Labardé would be the last person to be considered to be whipping his model. His method of flying from the centre of the circle deserves comment, for he does not move one inch from his "chocolate soldier" position whilst turning in the centre. Dr. Millet, the other French expert entry, firmly positions one heel in the centre spot and turns himself about this point, not raising the heel throughout the flight.

Prizes for this event, and for the 10 c.c. event also, were 1st—a gold chronograph stop/wrist watch. 2nd-4th place—wrist watches, and in addition the European Plymouth Challenge Trophy which goes to the leading Equipe or Team. France has won the challenge for the 2nd time and Monsieur Chabot, their team leader, has declared the intention of retaining it next year. Perhaps by that time we shall have decided to do something about the matter, for this Trophy is identical to those presented at the U.S.A. Plymouth contests.

### 10 c.c. Event.

The use of shortened lines in the 10 c.c. class, exaggerated the high speeds of the winning models to the extent that our first impression (after Brighton) was that every model at Geneva was doing well over the 150 m.p.h. mark. Only 3 km. slower than his French Nationals Championship figure, Dr. Millet of Belesta, with his McCoy powered model, equalled the British 132 m.p.h. record by N. G. Taylor. His model was finished in natural balsa and ply, weighed 24 ozs. and had a brand new motor which had made only 3 flights prior to this contest. The model was a perfect example of engineering

Below : Jacques Dupuy, with his Micron 10 c.c. stunter, one of the few French models without motor offset and with a normal fuselage. Detachable tongue and box fitted wings, model is finished all-black and is slow flying.



practice applied to speed flying. Dr. Millet used Ohlsson number 30 fuel (30 per cent nitrated) which was loaned to him by the generous Georges Vallet, who placed 2nd at 125 m.p.h. with a Dooling-powered Speed-wagon, the setting being extremely rich and Georges extremely harassed because of his administrative duties of the day. Close at 3rd place with 124 m.p.h. was the Swiss entry by Marchon of Geneva with a Micron 60 motor and 4th place was filled by Robert Labardé of Paris (Maraget 10 c.c.) and Meuwli (with a Hornet) tying at 120 m.p.h. When the Hornet leaned out, this latter model was extremely fast during the last part of its flight, as a result of aerodynamic study by its designer. The petal shaped wings provided a change of airfoil section from root to tip, and this, coupled with the massive 1950 Hornet motor, accounted for probably 140 m.p.h. for the last 2 laps of each tank-full.

Each speed model was required to fly over a distance of 1 kilometre, which is further than needed in English contests. Remember this when comparing the continental speed figures with our own. Some of the 10 c.c. models flew in clock-wise direction after Speedwagon influence.

An amusing interlude occurred after the competition, when it was decided to test a revolutionary Flying Wing Pusher Stunt job. A powerful hand grindstone had been in use throughout the day for starting models, and it was called for to start the reticent Ohlsson 23 in the wing. But which way to turn the handle? Without stopping to consider, an outburst of language assayed our ears when one section decided that the handle should turn in one direction and the others clearly saw that to turn the opposite way was correct. Eventually, the motor was started in the correct direction and after a short test hop, it finished in one of those regrettable landings—concrete is not kind!

Below : Winner of the Stunt contest, Senn of Schönenwerd, Switzerland. Model is a lightweight version of the Stuntwagon 30 and has a 2 49 c.c. Kastor motor. With small elevator movement, the model is smooth throughout all manoeuvres.







## Continental Journey (cont.)

Attracted by a programme-booklet with lucrative prize details for three international power contests one Swiss, one Englishman and 250 Italian aeromodelisti descended on Milan for the annual "Gionate Aeromodelistiche Ambrosiane".

At left: A test flight of the 136 ft. span Breda 308 airliner interrupted the precision contest.

Top, opposite page: Lined up for Concours d'Elegance, the entry included three scale Macchi 308's, one Piper Super-cruiser and five free-lance designs.



AFTER assembly at the early hour of 7.45, we were transported pillionwise on the remarkable 125 c.c. Vespa scooter, to the Milan bus park. There we mounted a massive Air Force truck and after a journey in which the acceleration and deceleration values of our transport and its trailer were fully taxed, we arrived at Bresso Airport.

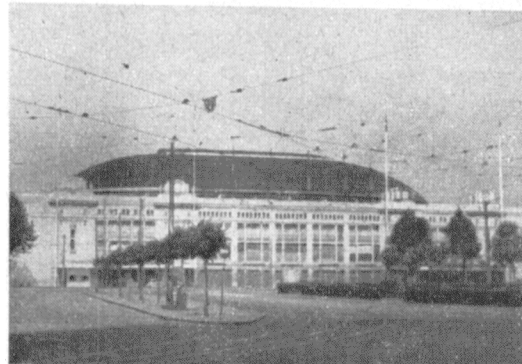
A soft, lazy wind dictated midfield take-offs and a blazing sun over the damp grass appeared to develop strong down draughts. Though a small entry, the models of the nine Italian competitors for the magnificent "Movo-Cup" were built to a standard rarely seen outside of National exhibitions in this country. Each model was judged for appearance and then subjected to a series of flight tests for stability, duration, manœuvring and landing points. So confusing was the points system and so difficult the administration of the entrants, that the 27 official flights took no less than eight hours to complete. However, the applause for Arve Mozzarini who gained first place with 641 assorted points left little doubt that his victory was a justifiable one. A happy system of prize giving provided all but two of the entrants with handsome souvenirs of the day's flying.

Summing up this contest, one cannot help but arrive at the conclusion that, while the Italian modeller is able to build free lance power models to a high standard, his knowledge of miniature two-stroke operation leaves much to be desired. Only two entries, and one of those with an English Mills .75 c.c., were able to take off within any reasonable time allowance.

Concurrently with the "Movo Cup", a district eliminator for the Italian Wakefield team was held with approximately six entries. Edgardo Sadorin with his Merlu II (second place, 1949 Wakefield), emerged victorious and should be respected as a strong opponent to our Wakefield hopes for this year.

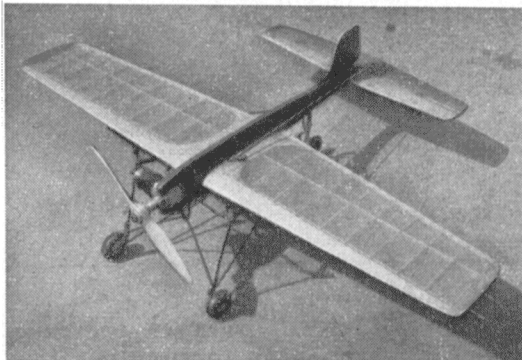
### Speed and Stunt Contests.

Faced with the attendance of the other 240 Italian Modellisti, one Swiss and one Englishman, an early start at 7.30 a.m. was planned for the following day. We arrived at the Stadium entrance to find police and an ambulance in attendance. Inside we found the vast mosaic



At left. Top: Arve Mozzarini of Milan with his Brown 10 c.c. powered Macchi won the first individual place in the Movo cup. Centre: Another Macchi 308 by Felice Secomandi of Genoa used the miniature Zena 1 c.c. diesel. Bottom: Milan's Palace of Sport, scene of the control-line contests, was large enough for two 55 ft. circles.

Right: 6 c.c. Super Tigre powered stunter by A. Castellani used clock-wise prop with special rotary valve timing.



surface so smooth that leather shod unfortunates were forced to tread warily lest they slipped.

Here at last, we thought, was a record breaking site for speed fliers, but, no, either the oppressive heat within the Stadium affected carburation, or the sound resonance set up as each racing motor started, upset the judgment of all, including even the expert Swiss, Norbert Marchon, who eclipsed the Italians to win the Italian Aero Club cup at 108 m.p.h.

The times for speed were so low in fact, that the two stunt models of Fiorini and the writer each flew faster than 90% of the speed models.

During seemingly limitless attempts at take off, or long, eight stroking sessions by maladjusted entries, the 500 spectators in the upper galleries showed remarkable appreciation of the efforts of the modellers. Multitudinous cheers greeted Carlo Saudella, who showed unusual skill at tuning his own constructed ETA 6 c.c. glo-plug motor to achieve the fastest Italian speed of 97 m.p.h.

Saudella helped many of the other competitors to get away, particularly in the 5 c.c. class, where the popular Super Tigre G 19 glo-plug motor powered most of the entries, including that of the winner, Sergio Sabbadin, at 86 m.p.h. Other engines noted in the speed pits were the usual bunch of McCoy's, an Ohlsson 60, and an ingenious double bypass, double exhaust port and double glo-plug version of the Dooling by a Trieste enthusiast.

The Italians are forced to favour 5 c.c. for speed because of the difficulty of obtaining suitable 10 c.c. engines.

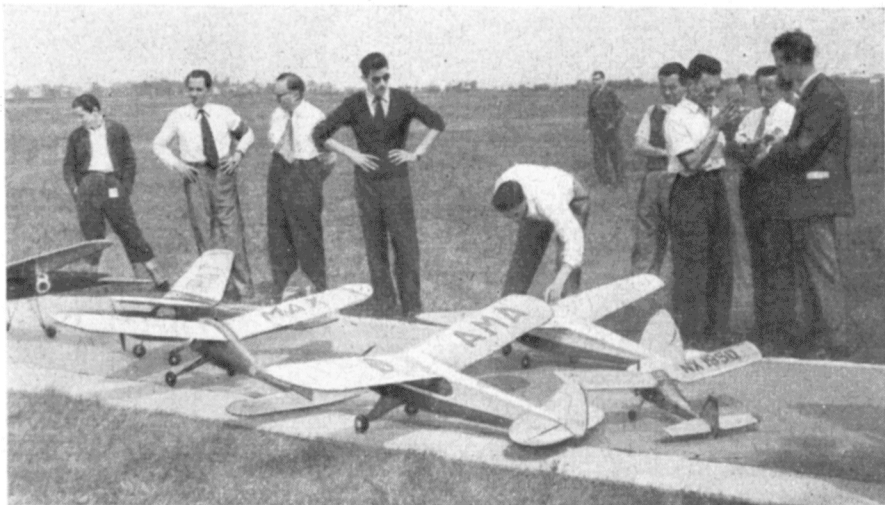
#### "Aero Club of Milan Cup" for Stunt

Despite a large attendance of stunt models, only a dozen attempted a simple schedule comprising one of each of the standard British manoeuvres excepting the square loop. In addition, points were awarded for appearance, glider-towing and the emission of smoke. Only the writer completed this schedule.

Piero Gnesi, renowned Italian modeller, won this contest with 799 points out of a possible 675! He flew a McCoy-powered profile model similar to the Kandoo. Two smart stunt fliers at 2nd and 4th places were Gottorelli and Fiorini. Had they made a pretence at a vertical 8 they might have drawn more cheers and thus improved their final placings. Gotterelli used a glo-plugged Ohlsson 29 and Fiorini an Arden 199 on a model with flat sheet wing and flaps connected to the elevators.

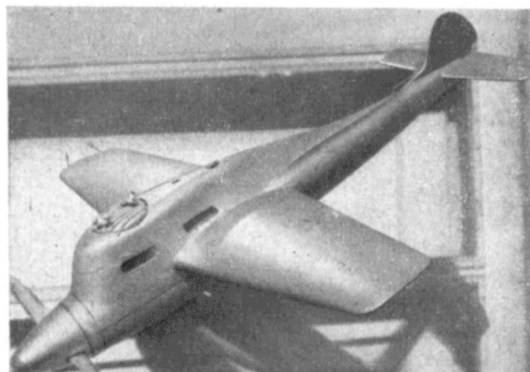
Other stunt exponents drew roars of encouragement from those at safer vantage points by attempting to decapitate crowds in the gallery or collide with the hanging lamps.

Though judgment of this contest was not exactly comprehensible to us or the others from second place downwards a good time was had by all—even the dynajet pilot enjoyed himself despite 50 ft. lines and the thunderous roar in the enclosed arena.



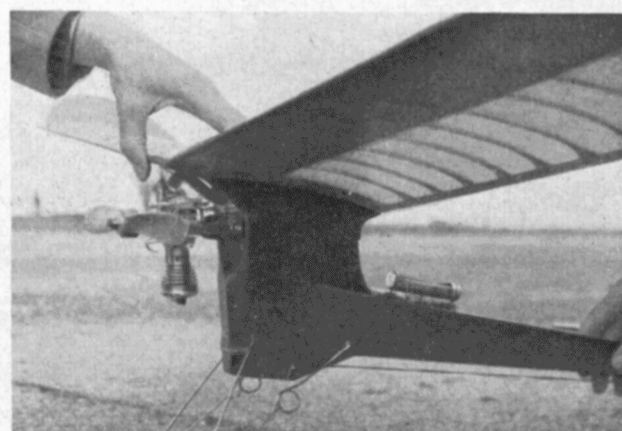
At right, Top: Adriano Castellani of Cremona placed fifth with this pretty Air Trails "Cloudster" (Mills 75 c.c.). Centre: Gianni Martinenghi tried to convince us that this two-seater is a perfect scale Gloster Gladiator!

Bottom: Gianni Fiorini of Bologna holds the 2nd and 4th place stunters. Note flaps and flat plate wing on model at right. Left: A Trieste model had two of everything, including glo-plugs.





SEEN AT THE  
**FRENCH NATIONALS**  
PERSAN-BEAUMONT





On opposite page, top left: Profile gliders are popular in the Le Havre area, they are rarely larger than 4 ft. span. Top right: Jean Fontaine from Avennes y Helpe had one of the few streamliners at the Nats. Second row left: A Parisian power model by Leloup, using a rotary valve Ouragon 2.8 c.c. diesel. This typical high performance job represents the shoulder wing, high dihedral class which is gaining great popularity. Right: Lerat of Cichy, Paris, has a new cabin layout for the hatchet enthusiasts; note the strut bracing. Third row, left: Young Raymond Schafter of Louviere was one of a school of junior entries under the direction of a full size 'C' glider pilot. All their models were simple box types, and Schafter placed high with this one. Right: The only petrol powered entry was that of Tournadre of Paris. This model had a unique folding prop and two timers. One operated the motor cut-out on the magneto Micron 10 and also set a trimming tail tab for the glide, while the other despatched a parachute for D/T. Bottom row, left: Emmanuel Fillon and his world-famous Champion need no introduction; but having lost one on its first flight Fillon brought out this interesting "spoilered" version as a reserve. Spoilers are worked by an ingenious clockwork timer system. Right: This weird layout by Serres of Caucassone includes an Elmic timer, Fred Guest Shut-off, plus a fuel limitation tank—M. Serres should never over-run his 20 secs. motor run! The canister holds the burning fuse for the parachute, which pops out from between the undercarriage legs.



Above: Whoops! The strong wind lifts Cointet's 4 c.c. Allouchery diesel model faster than he can retract his hand.

## Continental Journey (Concluded)

THE French National Championships for glider, Wakefield, and free-flight power, were held during Whitsun at Persan-Beaumont airfield, 20 miles north of Paris. Combining two airfields, one military and the other a centre for Lightplane and Soaring enthusiasts, Persan-Beaumont is quite the largest site we have seen made available for aeromodelling.

Despite the widespread boundaries, strong winds blasted most of the lighter glider entries out of sight within three to four minutes. All credit, therefore, to the new champion, Jacques Lock, from Compeigne, who managed two maximums of over five minutes with his aged heavyweight 7-footer. Fillon, the previous champ was unlucky in losing the first of his two "Champion" models on its first flight, whilst his clubmate, Tournadre, was fortunate in retrieving a third "Champion" by car. It was a day for the heavy jobs; even Cheulot's massive "Dragon" and two other above 10-footer's could not penetrate the wind, yet we failed to notice even one casualty—which speaks well for the skillful, even artistic, manner in which the Frenchman tows off.

They use a combination of winch and pulley, usually starting off with about 250 feet of line and towing up with the pulleys, and then, when the model is kiteing well in the wind, they pay out the rest of the line from the winch until all of the allowed 100 metres is in use. Even then, some of the more demanding entrants played kite-wise to get the model directly above the winch for a perfect release.

Among the 250 models entered for the Senior and Junior Championships, it was possible to discern regional fashions in design. For example, the Le Havre district favours a simple profile fuselage with constant chord wings and the inevitable twin fins (very, very few French modellers use a single fin).

Below: 1950 Senior Glider Champion of France, Jacques Lock with his winning diamond fuselage pylon model which is three years old. Aspect ratio 9:1 Gottingen 417 airfoil, uses an Elmic timer for D/T.



Fuselages made in profile style, were usually about one inch thick and necessarily deep to come within cross-sectional requirements. Wings must be strut-braced for strength. From the Chalons-sur-Marne area, models were shoulder wing and more like British designs with box fuselages. From larger centres, Paris, Lyons and Nice, almost every glider had tapered wings, mostly high enough to be called pylon wing, and diamond section fuselage. Airfoil sections Eiffel 431 and 400 are most popular and every job had a dethermaliser unit installed, a few with parachutes, but most with the tip-up tail device.

Though blessed with more sun, the second day brought gale force winds to tax the power contestants; but entrants came readily to the take-off line to make average flights of 5:1 ratio with models capable of 10:1 minimums in normal weather. Again, the French appeared masters of fierce winds, for we saw only one prang, and that with an untested model.

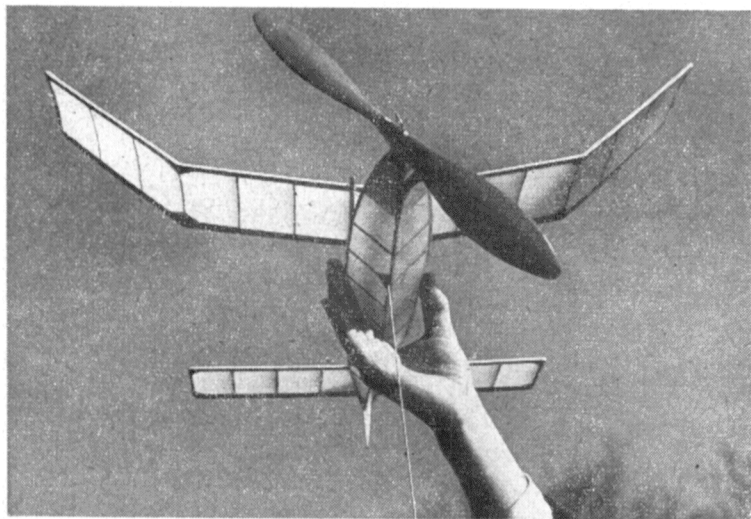
After our rapid tour of other continental countries, the ease with which the French, who are long experienced in diesel operation, started motors on the take-off line, gave light relief to our worries, for up to then we were beginning to think that we alone in Europe could hand start a motor within reasonable time. Maraget and Micron motors formed the bulk of the power units, supported by a sprinkling of the new 4 c.c. Allouchery and the new rotary valve Delmo. Only one glo-plug, and one petrol motor were observed in an entry of approximately 60.

And so at last to home. the faithful Enfield Bullet laden with loot, having been driven hard for 2,200 miles in eight riding days. We can most heartily recommend a Continental Journey to all aeromodellers with reliable motor cycles.

Below: Junior (under 18) Champion of France Albert Noyon had a similar model to Lock; but with a box fuselage. Sheet fins are held on by rubber bands on both models.







**Especially for the Beginner**

PART VIII.

# THE WALTHER RUBBER MODEL

BY REV. F. CALLON AND ROLAND SCOTT

**N**OBODY should start his aeromodelling career by building a rubber model. Your very first model should be a glider, for gliders are easier to build and fly than any other type of plane. But if you have had any experience of modelling—even if you have only built and flown *one* model before, then you will find very little difficulty in making a success of the WALTHER RUBBER MODEL. And if you have already built the WALTHER GLIDER, then you will find this present model simplicity itself, since the design is basically the same.

For more experienced modellers who want an easy-to-build contest winner, it should be mentioned that Roland Scott's original design was much lighter than the one given here, the basic fuselage structure being in 3/32 strip, and weight being saved wherever possible in gussets, sheeting, grade of wood, etc. With a folding prop. this version climbed like a rocket on four strands of  $\frac{1}{4}$ "  $\times$  1/24 rubber, and a three minute flight in still air was absolutely guaranteed every time. So

if any old hands want to build it on those lines, they should be more than pleased with the result. In adapting it for a beginner's first rubber model, it was decided to strengthen the construction in spite of the extra weight. The performance is still very good, and as for the strength—well, this is easily the toughest rubber model I have ever met!

## Building the Fuselage.

Cover the plan with grease-proof paper, and pin down onto level work-board. Lay the top and bottom longerons in position, using straight pins on alternate sides to make sure that they follow the curve correctly. Cement them together where they meet at the extreme tail. Lay a piece of  $\frac{1}{4}$ " square strip across the longerons immediately over the places marked for spacers, and cut *four* identical spacers for each one marked. The four cut for the extreme nose of the fuselage should be from the hardest piece of strip you have. Starting from the nose, cement in place the first set of spacers between the longerons, having pre-cemented both ends of each one and also the places where they meet the longerons.

Now cut to size two identical rear peg supports, and drill a  $\frac{1}{4}$  in. hole through the centre of both of them. If your  $\frac{1}{4}$  sheet is really hard, there will be no need to reinforce the hole with ply or celluloid. Cement one of these supports in place; it must be a good fit, and use plenty of cement. Add the diagonal brace and an  $\frac{1}{4}$ " gusset at the top.

Build the second side over the first in exactly the same way.

Heading photo shows designer Roland Scott giving a practical demonstration of the model when in contest trim.

Fig. 1. Left, shows wing mounts attached to the wire supports which are in turn bound and cemented to the spacers.

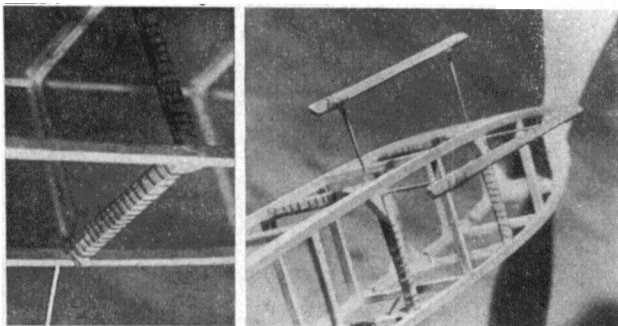
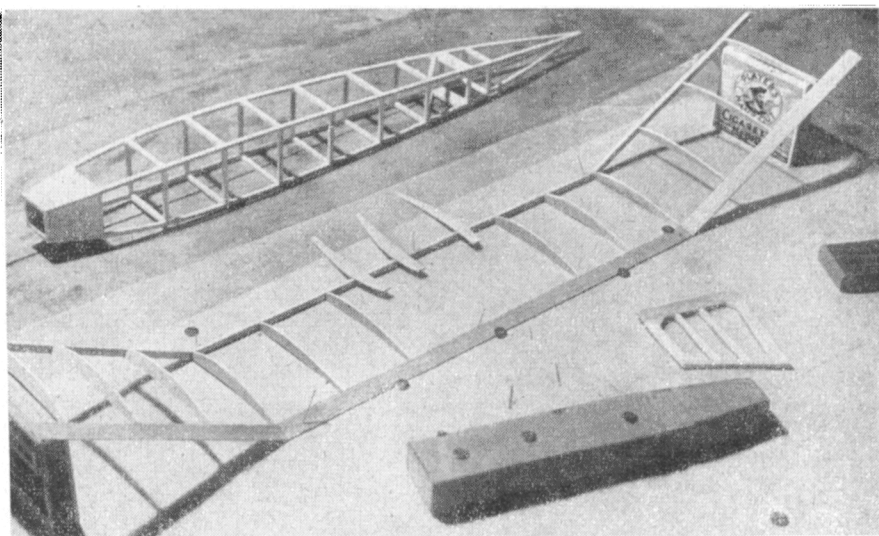


Fig. 2. A general view of the work bench. The tip dihedrals are being held in place to set before the gussets are added.



Allow the cement to set, then remove the two sides in one piece from the plan, sand, and slice apart with a blade. Add the top and bottom spacers in the following manner: use drawing pins between the fourth and fifth vertical spacers from the nose, to fix one side of the fuselage in position standing up on the plan and at right angles to it. Cement lower spacers 4 and 5 against the lower longeron, and having cemented their free ends, push the other side of the fuselage, parallel to the first side, against them. When almost set, add top spacers 4 and 5, and check to make sure that the whole is quite square.

Next, add the two nose spacers, holding in position with a small rubber band. Join the two sides at the tail, and then insert all the other top and bottom spacers. Use plenty of cement to sheet in the front bay with 1/16 hard balsa.

#### Undercarriage and Wing-mounts.

The balsa framework of the fuselage is now complete. It has a square cross-section, and this is converted into the final "diamond" section merely by giving it a slight turn, so that one of the longerons comes to the top, and its opposite number to the bottom.

The single legged undercarriage of 18 gauge wire is bent to the shape given on the plan, and bound and cemented to the two No. 4 side spacers. If desired, a single piece of wire may be bent to form both the undercarriage leg and one of the front wing supports. Use ordinary cotton for the binding.

Bend and cut the wing support wires accurately over the plan, and check them for length before binding and cementing in place. It is very important that the front two should be exactly 3 and 3 tenths inches long from the side longeron, and the rear pair 3 inches; this gives the correct angle of incidence to the wing. Bind and cement the two cane wing bearers to the wire supports: see Fig. 1.

#### Nose-block, Propeller and Free-wheel Assembly.

For a detailed explanation of this part of the construction you will have to refer to the June number of the AEROMODELLER. Briefly, the process is as follows: "Sandwich" together four or five laminations of 1/8 sheet balsa, and cement on top another square of 1/8 sheet cut to fit snugly into the aperture at the front end of the fuselage. Drill a 1/8 in. hole

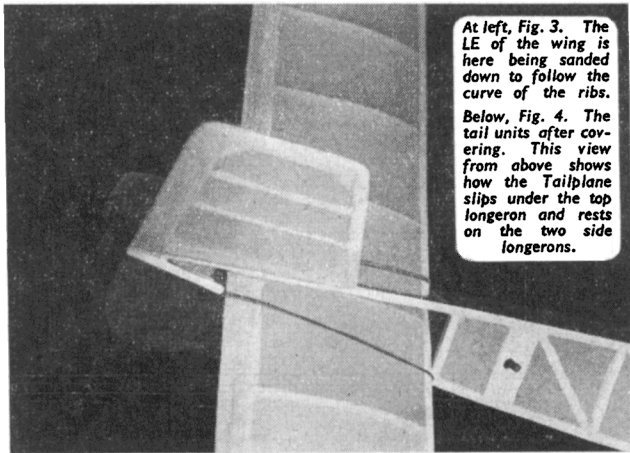
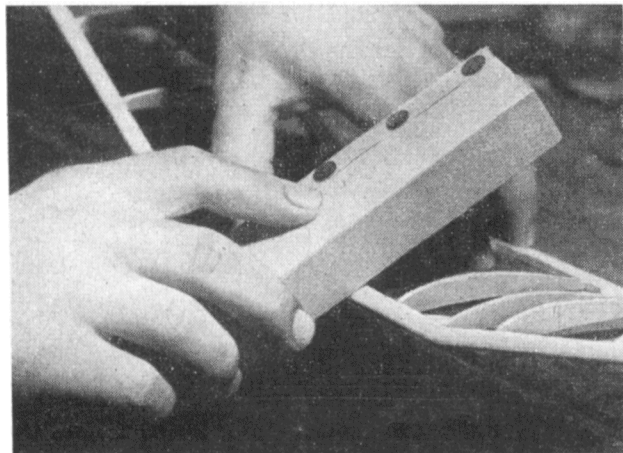
right through the block, and through this hole cement one of the brass bushes, with its flat head away from the retaining square of 1/8 sheet. Push into place against the nose of the plane, and carve and sand to follow the lines of the fuselage. Sand the prop. quite smooth, drill through the centre and cement the other bush so that its head is towards the nose-block.

Bend the end of a piece of 16 gauge piano wire into a small square for the free-wheel clutch, and thread onto it a cup-washer, the propeller, washers and ball-race, and finally the nose-block. Bend the rest of the wire through the bobbin as shown on the plan, and pack the bobbin's centre with a small piece of cane or hardwood to keep it central. (If no bobbin is being used, the wire is merely bent into a loop and covered with rubber valve tubing.) Now bend a very small loop at the end of a piece of 18 or 20 gauge wire, just large enough for your 1/4 inch screw to pass through, without the head following. Screw it into the front of the prop. about 1/4 in. from the centre, and snip off the wire so that it reaches just past the main prop. shaft but not quite up to the far side of the clutch square. The screw must not be so tight as to prevent the driving arm from moving freely from side to side.

#### Wing and Tail Units.

These are all quite straightforward.

Trace the outline of one of the ribs of the wing and of the tailplane (using carbon paper) through the plan onto a piece of hard 1/16 sheet balsa or plywood. Cut these out, and sand accurately to size; then use as templates, round which to draw the outlines of all the other ribs onto fairly hard 1/16 sheet. Cut out the ribs, pin them side to side including



At left, Fig. 3. The LE of the wing is here being sanded down to follow the curve of the ribs.

Below, Fig. 4. The tail units after covering. This view from above shows how the Tailplane slips under the top longeron and rests on the two side longerons.





the original template ribs, and sand until they are exactly the same shape as each other and the originals.

Start the wing as a single unit, by laying out the full length of the L.E. and T.E. over the plan. The T.E. should be chamfered properly down to a knife-edge, and the L.E. may be roughly shaped before cementing starts. Pin the T.E. firmly down, and cement to it all the wing ribs *except* the middle three, and the two which occur at the tip dihedral joints. Cut through the L.E. and T.E. at these two points, and prop up the two tips 2 ins. off the board. Sand the joints to a good fit at this angle, and cement together. Then insert the two missing ribs. Fig. 2 gives a general view of the work board at this stage, but note that the dihedral here is greater than that finally decided upon—a Twenty Players' packet gives you 3 ins. not 2 ins.!

Trace the centre dihedral brace through the plan onto 1/16 ply, and cut it out, a metal straight edge and a stiff-backed razor blade are sufficient to deal with thin plywood. Cut through the L.E. and T.E. at the centre of the wing; remove the pins from one side only, prop up this side to a height of 1 in. at the tip dihedral, and cement the centre dihedral brace against the rear face of the L.E. and the joints in both L.E. and T.E. Then add the three middle ribs. When the cement is quite set, remove the wing from the plan and add all the gussets. Trim off the overlap of L.E. and T.E. at the wing tips, and cement soft  $\frac{1}{4}$  in. sheet against both the tip ribs. When quite set, carve and sand to the aerofoil section.

Finally hold the wing down firmly with the L.E. running along the edge of the workboard, and use your sanding block to round it (the L.E.) properly—see Fig. 3.

The tailplane and fin are built flat over the plan, and offer no difficulty whatever. Trace the underfin onto 1/16 sheet with the grain running down, and cut it out.

### Final touches before covering.

Right-thrust and down-thrust are built in to make sure that the model has a natural right turn, and to prevent it stalling under power. To do this, the front of the fuselage is slightly off-set. Hold it with the wing-mounts facing you; the two top spacers at the extreme nose of the fuselage will now be sloping away from you, one to the right, the other to the left. The one on the left is the only one of the four nose spacers which has not to be altered. The one directly opposite to it, i.e. the lower right hand spacer furthest away from you, must be sanded away until it is only 1/16 in. wide instead of  $\frac{1}{4}$  in. The other two spacers must then be sanded off in a slight diagonal direction to line up with the top left hand  $\frac{1}{4}$  spacer and the lower right hand 1/16 in. spacer. Thus, when the fuselage is held the right way up for flying, with the nose-block pushed home against the four front spacers, the propeller will be pointing slightly downwards and slightly to the right. (See diagram on the plan.)

Fig. 4 shows the covered tailplane and fin in position. Since the fin has to be cemented onto the top longeron which is set diamond-wise, the top of the longeron must be slightly flattened by sanding at this point. The same applies to the tops of the two side longerons on which the tailplane is to rest. Do not cement the fin or the underfin until the entire model has been covered and water-shrunk.

### Covering.

Use *smooth* tissue, not rag tissue. Damp, and pin down the tailplane and wing (half at a time) to dry. Then cement the fin and underfin in place, adding a fillet of cement along the joints. Note that one of the lower panels just forward of the rear peg supports is to be left uncovered to allow easy adjustment of the rubber motor.

Put one coat of clear dope on the fuselage (only), and follow up with one coat of banana oil over the entire model. No pinning down is necessary. (Three or four coats of clear dope should be applied to the propeller and nose-block before they are mounted onto the propeller shaft.)

Open the T.E. of the fin with a razor blade, and push in the trim-tab, adding a fillet of cement along the joint.

This is a 1/3rd scale reproduction of the full size drawings available price 2/6 Post Free from the Aeromodeller Plans Service.

Trimming and flying instructions for this model will be published next month. Complete instructions are issued with each full-size drawing.



# WORLD NEWS

by ARIEL

1950 Wakefield site; the Soaring School at Jamijarvi, Finland. The flying area, approximately 1½ miles by 1 mile, is divided in two by a ridge about 130 feet high. Competitors will be housed in the school, and there is swimming in the nearby lake. The ground is slightly undulating and heather-covered.

Photo below shows four members of the South African Wakefield Team. From left to right, R. Rowe, Capetown, R. v. d. Merwe, Grahamstown, E. Roods, Cape Town, and J. Stow, Uitenhage. Rowe and van der Merwe were First and Second.



As you read these words, the last minute activity connected with the Wakefield will be in full swing, and indeed, some of the contestants will already be on their way to Finland.

Collected here are the last details we were able to obtain in time for the Contest: the next news will be a report of the event itself which will, of course, be a big feature.

From the Finnish Aeronautical Association we have received the official Programme, which sets out all the necessary details very clearly, giving a timetable for the four days concerned, July 20th-24th. The contest rules and regulations are set out in full, and the last page of the programme gives points on travelling and of general interest, to those who will be visiting Finland this summer. We were interested to note that the contest times on July 22nd are from 7 p.m. in the evening until 3 a.m. the following morning. In this connection we will quote from the Official Programme: "We hope that you will not be unduly alarmed when you learn that the contest takes place at what may look like impossible hours. The reason is that by that time thermals have settled down (thus giving a fair deal to everyone), yet the Northern July night is still quite bright enough even for reading a Pocket Book without a candle." Amongst the many new features which will undoubtedly attend the 1950 Wakefield Contest, this "night flying" will certainly be unique.

Contestants and others will undoubtedly approve of the Interval Buffet, between Rounds II and III, at one o'clock in the morning.

In passing, the programme has a helpful paragraph for those who will be going to the A 2 Glider Contest in Sweden.

Reading through a letter from Bob Linn of Los Angeles, California, we noticed what he had to say on the subject of

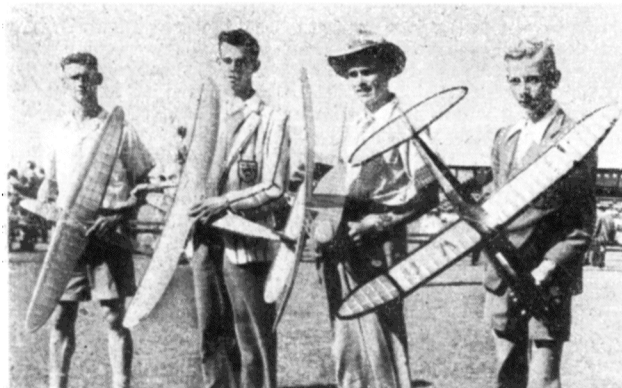
the U.S. Wakefield team. Apparently, neither of the boys from that State who were in last year's team placed this year, but the times for the first three men were between ten and eleven minutes. It looks this year, Bob tells us, as though the American team will have to use proxy fliers if it competes at all. For, up to the time of his letter, which was written on the 25th May, no news of any funds with which to take a team to Finland had been released. The enthusiasts were still hoping, of course, that something would come up at the last moment to enable them to participate.

From the Academy of Model Aeronautics in Washington, we received their No. 2 Bulletin on the Wakefield Schedules, which was actually published in April, and which gave the number of members who would be selected from each area to make up the six required for the team. At the time of writing these selections will have taken place, but unfortunately they have not reached us, except for the results of the Southern California and South West States Wakefield semi-finals meet. The six winners of this contest competed in the qualifications finals held in Northern California, on the 28th May. From these results two representatives for the West Coast alone were chosen. The top times put up were 11:18.8 by Bill Poesch of Santa Monica, and 11:11.9 by Lo Salisbury, Huntingdon Park, California. There were 116 official flights completed out of a possible 145. When one considers that this was only one contest of four flown in the Western United States alone, it gives some idea of the vast size of the Wakefield movement in America.

South African Wakefield news via the S.A. Aeromodellers' News Letter "Flypaper" Mk. II, gives the results of the open Wakefield championships and the details of the six top men who will make up the team. The times of the top three R. Rowe, R. van der Merwe and J. Stow, were respectively, 390.9 seconds, 369.8 seconds and 299 seconds. The whole team comprises new names, none of whom were in last year's Wakefield Contest. It may interest readers to learn that the first place was taken with a Contestor which had a two-blade folding prop, using Dunlop rubber, a Korda Wakefield with T56 rubber was second, and number three was another Contestor.

From New Zealand Frank Bethwaite writes us that it is hoped that at least one New Zealander, Angus McDonald, their 1948-49 Open Champion, will be on the spot in Finland.

Australian results reached us from two sources: from Colin Hearn of McKinnon, Victoria, and from J. M. Fullarton, the press officer of the Victorian M.A.A. The top times were 274.1 seconds, 242.8 and 202.3, put up by A. Meader, for whom R. Rowe flew proxy, J. Fullarton and H. Forest. Details of interest connected with these Wakefield eliminators will be found in the reports under the particular countries.



**Australia.** We have been so well supplied with material about the Australian Nationals that we are in a position to lift out the highlights which will be of most interest to modellers in other parts of the world. With a 20-page letter from Colin Hearn and Jim Fullarton's article clipped from the Australian magazine "Aircraft" (part of which we reproduce by permission of the Editor), there is no shortage of detailed information on the various contests.

First a big bouquet to Bob Rose, President of the Model Aeronautical Association of Australia, for the terrific amount of work which he put into the organisation of the Nationals. He was also instrumental in getting the R.A.A.F. to provide transport and a model-recovery service of two jeeps, without which many models would never have been recovered. One of the most successful innovations was the telephones on time-keepers' tables connecting them to the Contest Director.

Friday, the first day of the meeting, saw the Hurl Gliders (Chuck gliders, to some of you), Junior Rubber, F.A.I. Sailplanes and Precision Payload events. Although the weather was fair, the waterlogged ground caused considerable discomfort, and apparently the recovery jeeps put up a huge bow wave when crossing the field. Complete lack of thermals kept the times down in the Hurl Glider events, W. R. Reeve winning with 56½ seconds.

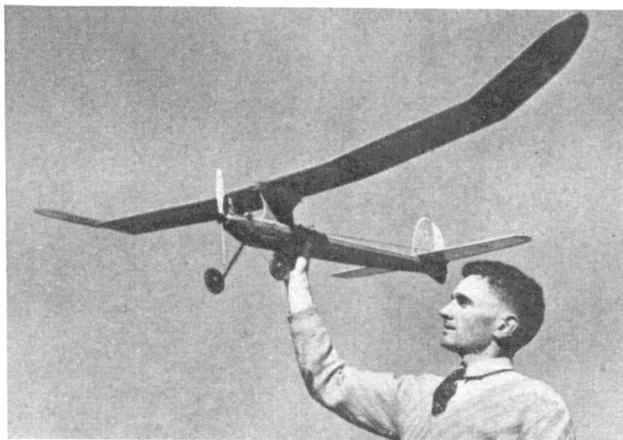
The Junior Rubber was won by a young lad named John McGrane, whose model was only the second he had built. His 218.1 seconds was no mean effort in the windy conditions which then prevailed. Unfortunately he lost his model after a flight of five minutes in the last round. Rubber modellers everywhere will sympathise with the South Australian type who put on those extra few turns, in an all out effort, which so often add up to "one turn too many". Except for a small piece of fuselage under the tailplane the entire construction disappeared in the explosion! Two impressions from the F.A.I. Sailplane event; an 11 ft. job which got off the line into a gentle thermal and flew beautifully for about one minute. Suddenly, for no apparent reason, it dropped its nose into a vertical dive and really blew up when it hit the ground after coming down some 400 feet. The other was a bit of extremely hard luck when a dethermaliser parachute came unstuck after two minutes, fouled the tailplane and caused an 11 ft. 4 in. giant to execute a perfect bunt and fly inverted for over 30 seconds. However, 20 feet above the ground it flipped out and landed right way up, heavily but undamaged. The winner was W. Malcolm, of Victoria, with 232 seconds average.

The Precision Payload produced some very fine models and good flying, although most of them had difficulty in taking off in the restricted space available. They would be just on the point of coming "unstuck" when they hit the long grass. A. Tinker, of Victoria, won this event.

The indoor event was flown under the dome of the Exhibition buildings, Melbourne. The atmosphere was such that, to quote a local newspaper, "an official told our reporter that a good hearty sneeze would wreck the contest". Everyone talked in whispers and walked on tiptoe. A slight draught of air across the dome carried most of the models on to inaccessible ledges and spoilt the times. However, G. Burford won the stick event with 639.5 seconds and B. Felstead the fuselage event with 422.8 seconds.

On the Sunday a west wind helped to eliminate untried and untrimmed power models. Oddly enough, however, prangs were not numerous, although those which did take place were most spectacular. 3.5 c.c. and under was won by Roy Moodie with an E.D. Comp special powered Slicker 50, from a field of 80 entrants. His ratio was 9.30 and the model required extensive repairs between flights, thanks to cartwheeling in the wind each time it landed. As expected at the contest, Ray Harwood carried off 1st place in the over 3.5 c.c. class with his McCoy 49 powered Westerner. This job has a terrific vertical climb, calculated at 60 m.p.h. and "the wings do no work until the motor cuts". Alan King, with a beautiful 6 ft. 6 in. span Eta 29 powered pylon job, had the winner worried and came in only .15 lower on the ratio.

Our correspondent tells us that, although the two radio control models present were given an airing and radio tests, no attempt was made to fly because of the high wind.



Our correspondent, Jim Fullarton of Glen Iris, Victoria, at the Nationals.

The control-line events which were flown on the Monday had perfect weather. The Junior Stunt was won with a kit design, Super Skylark, which is put out by Hearn's Hobbies and was powered with a Frog 500. A smooth performance "of the book" in an effortless manner, won for Johnny Lamont with his model a Hearn's Tempest 60 racing motor, plus the choice of an American motor.

Colin Hearn claims to have dug the deepest hole at the Nationals with his super-streamlined Amco 3.5 powered stunt: "... as I went into a wingover the lines bound and I finished it doing, all unintentionally, a loop, three wingovers, and a vertical dive that ended five inches under the ground (officially measured) ..."

The Open Stunt event was won by Reg Cooper who also flew "the book" with ease, using the very nice combination of a scaled up Mercury Monitor powered by an Anderson Spitfire. As winner of the Open Stunt, Cooper also became Stunt Champion of Australia.

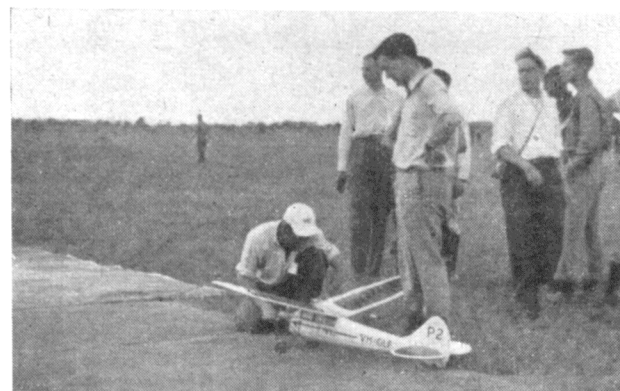
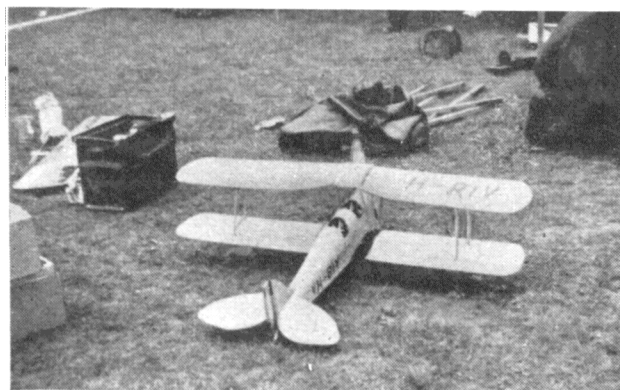
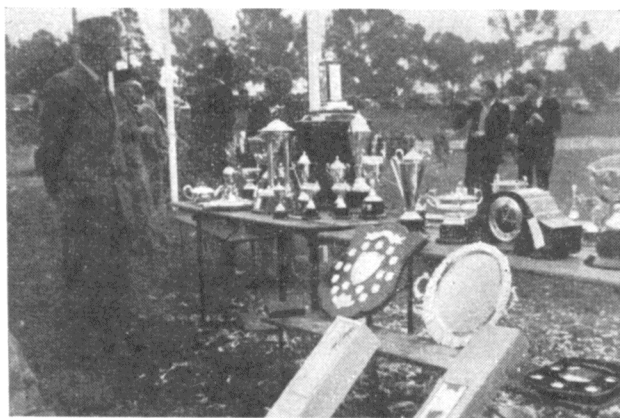
The speed events were disappointing, the figures being low except in one or two cases. Alan Lim Joon, the record holder, crashed both his models at high speed. Norman (Ding Dong) Bell, won the Classes B and C with 106.4 and 97.7 respectively. His Class B speed was the best of the day, although the highest actual speed, though unofficial, was that of 133 m.p.h. put up by Keith Hearn with a Dynajet in a Berkeley Squirt. The Team Racing was won by New South Wales and created considerable excitement amongst the spectators, as much as in the teams themselves. From a number of beautiful models, a perfect replica of a Tiger Moth won the control-line scale.

A successful Nationals wound up with an equally successful Dinner and Prize Giving, attended by 200 guests.

As Colin Hearn told us in his letter that he was not present at the Wakefield finals on the Saturday, we refer to Jim Fullarton's article for particulars of that contest, and we take the opportunity of lifting his report clean out of the article.

"Ironically, this day provided the best weather of the meeting, with an early west wind that died away after lunch. The Wakefield was a grim struggle between Bob Rowe, who handled Arthur Meader's model, and myself, flying last year's winning job. I made only one mistake, developing a stall on the second flight, but Bob made none. His model was lost for a time after its first flight, and his return, just in time for the second round, was greeted with howls of joy by the N.S.W. contingent. Harry Forrest was unlucky to crash on his first flight, as he finished in a blaze of glory with two 5-minute "possibles".

Design of most entries adhered fairly closely to the box fuselage, twin fin type first popularised by A. Lim Joon and E. Gregory of Victoria. Two notable exceptions were Forrest's streamlined Snafu and a very interesting model by lone Queensland entrant Allan Thomas from Brisbane. This had a high aspect ratio, laminar flow wing. This flew quite well, but was underpowered for our conditions."



There were two classes in the rubber-powered model group in each age section. Rubber events are not too popular in the Union although every effort is being made to kindle the interest in this branch. Those who did compete, however, certainly wound in the turns and demonstrated their ability by trimming their models which enabled them to clock in some very fine flights. R. v. d. Merwe, Grahamstown, took both first places in the Senior Section and S. v. Rensburg, Pretoria, completed his double in the Junior events.

The Jetex (all classes) Championships is a new event in the Nationals programme and it was soon evident that the '350's had a distinct advantage over the smaller units. The first place was taken by J. M. Malherbe, Pretoria, with a 'Durajet 350'. Time 529 seconds, three-flight total.

Although there are a number of British-made diesels in the Union, there were not many competing with the American makes and the Free-flight models had a definite American trend. The planes were flown in adverse weather conditions and the windsock was stretched out at right angles most of the time. Many models were unable to cope with the wind and were 'written off' at regular intervals, much to the delight of the spectators and the young natives from the villages situated on the hills in the vicinity of the 'drome. A Junior from Pretoria, R. M. Holmes, completed a hat trick by winning Classes "A", "B" and "C". A truly creditable effort. Incidentally, Class "A" appears to be increasing in popularity to the detriment of Class "C".

The CO-2 event only attracted a small number of competitors and this was won by R. D. Masters, the Chairman of the B.M.A.A. and a member of the East London M.A.C.

The Wakefield Championship and Eliminations proved to be a needle-match affair and the final results were in doubt until the last minute when R. Rowe, Cape Town, managed to beat R. v. d. Merwe at the post by 21 seconds. 3rd place was taken by a Junior from Uitenhage, J. Stow, then came L. Symons, Pretoria; E. Roods, Cape Town; and J. Sievers, Johannesburg. Rowe won with a 'Contestor'.

Not so long ago, the Juniors were the only ones to be seen with hand-launched gliders, but now the craze has spread to the old hands as well, and this event (a new one) was almost monopolised by the Seniors. Robbie "The Arm" Rowe, Cape Town, made sure of the title by annexing both first and second places.

Con Wallis, Johannesburg, added another first to his Class "C" Gas Free-Flight victory when he took the honours in the Precision 'Gas' Championship.

A minor sensation was caused by the South African Model Aeronautical Chairman, Dr. E. Allen, Pretoria, when he won Class "A", "B" and "C" Control-line Speed events and broke three South African records at the same time with speeds of 95.71 m.p.h., 102.33 m.p.h., 112.33 m.p.h. (tied with C. Culverwell, Pretoria). Thus the Pretoria modellers were unbeatable in the 'Gas' speed events as J. M. Malherbe clocked 126.71 m.p.h. in the Class "D" Championship.

The Control-line Jets found that the grass was too bumpy for easy take-offs and the crowd was disappointed with the performance of these models. The winner was P. Binet, Krugersdorp. Speed 113.88 m.p.h. Control-line Flying Scale made its debut in the Nationals this year and the models were the centre of attraction. There is something very fascinating about a model which really looks like a plane. G. Matchett, Pretoria owner of a beautifully finished "Minnow" was placed first. In the Stunt (Senior) C. Culverwell, Pretoria, retained his South African title for the third year in succession. D. Robertson, Krugersdorp, became the Junior Stunt Championship winner. Dr. E. Allen, who was the runner-up last year for the High Point Trophy was an easy winner this year, and, as can well be imagined, a very popular winner too. The new holder of the Junior High Point Trophy was Schalk van Rensburg, Pretoria.

Top, Trophies at the 1950 Australian Nationals.

The Scale Stunt Event winner, powered with an Australian GB motor.

George Mallet starting his Arden powered Precision Payload model.

Ray Harwood, winner in the Over 3.5 Class, preparing his McCoy 49 powered Westerner, assisted by his mother.



Last minute news from Hampton, Virginia, gives the result of their Eliminators. A. W. Leftwich of Richmond, Virginia, placed first, with a total time of 13 mins. 11.5 secs.; J. J. Tudor of Oak Ridge, Tennessee, second, with a time of 11 mins. 36.4 secs., and R. R. Gungle of Hampton, Virginia, third, with 10 mins. 23.6 secs.

Excellent weather attended the contest in which several contestants lost their models in their first and second rounds, due to faulty dethermalizer action (fuse type used almost exclusively).

Also just in from Karl-Sul Pettersson, in Sweden, are the names and times of their Wakefield and Nordic A.2 Glider teams. Going to Finland are Helge Eliasson (462 secs.); Olle Blomberg (459 secs.); Sune Stark (439 secs.); Helge Wamberg (380 secs.); Anders Hakkansson (372 secs.); and also in the team is Arne Blomgren who, although ill on the day of the elimination contest, has previously done well enough to merit inclusion.

In the Nordic eliminations Ragnar Odenman of Stockholm was well out in front with over maximum time (6 mins.) on each of his three flights. His total time was 1,080 seconds. Second place was taken by Kurt Sandberg (652 secs.), who was Swedish A.2 Champion in 1949. The third place was taken by Lennart Persson (537 secs.) and fourth by Sture Sandberg (395 secs.). Odenman and Persson were members of the 1949 Finnish A.2 team.

Just in time to catch the issue comes news from Frank Bethwaite in New Zealand of their Wakefield team. He gives no times, but those who made the grade are Marsh, who was seventh last year, Kennedy, who was seventeenth, Hansen and our correspondent himself. This is the first attempt on the part of Hansen at an overseas effort, although he is quite well known in New Zealand.

The models will be transported to England en route to the Contest by Tasman Empire Airways, Quantas Airways and B.O.A.C. for whose generosity, year after year, the New Zealanders give their undying thanks. Bethwaite states that it is only fair to add that Pan American have helped in like manner in the U.S. for some years. A lot of interesting material, including photos which Frank sent over, must be held for the moment as World News has taken up its allotted space. **South Africa.** A full report of the Fourth Post-war Nationals was sent to us by Mr. L. Sidney, the Editor of the "Flypaper". Additional details were found in the paper itself.

The championships were flown at two places, free flight at the Ciskei aerodrome, King William's Town, and the control line events at East London. Organised by the Border Model Aircraft Association, the contest was spread over four days and attracted a 100 modellers from all over the Union.

It was interesting to note the trend in South African aeromodelling since the imposition of Import Control, which is affecting the aeromodeller in many different ways.

A record number of entries were received but it was disappointing to note that the number of Juniors competing was very small. In the Sailplane event, several models were fortunate in catching some of the few thermals and they soon led the field. Competition was, however, very keen and H. Faasen, Cape Town, became the new Senior S. A. Sailplane Champ with a Jasco Floater. In the other section, S. v. Rensburg, Pretoria, took the Junior honours with an O.D. model. A "Dreamboogy" from the Cape took second place.



Top, left, shows Miss O'Carroll of Capetown with the modified Super Sinbad which was 4th in the Senior Sailplane Contest.

Top, right, Les Morison, Rand M.A.C., Secretary of the S.A.M.A.A., holding his Wakefield model.

Presentation of the Senior High Point Trophy. Left to right: The Mayor of East London, Mr. Matchett, President of the S.A.M.A.A., and Dr. E. Allen, winner of the Trophy, Chairman of the Aeronautic Association.

Messrs. R. D. and G. Masters of E. London. R. Masters, left, is Chairman of the Border M.A.A. Different Nats., similar mishaps! Left, Cliff Roberts, East London, whose Class B Powerhouse placed second with the fuselage splinters Right, R. Moodie, winner of the Under 3.5 Class at the Australian Nationals, the fuselage of whose Slicker came adrift just ahead of the tailplane.



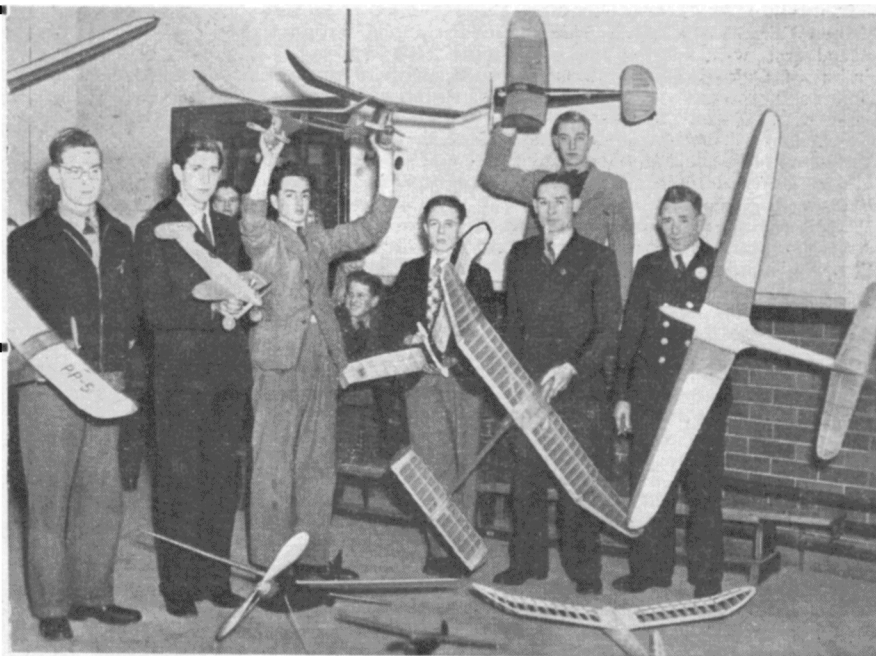


# CLUB NEWS

by CLUBMAN

**W**ITH yet another Nationals over, and the selection of teams for Finland and Sweden accomplished, we can now more or less sit back and enjoy the "lesser" meetings, though I fully expect to be pulled over the coals by the sponsors of the important rallies yet to come! However, there is no doubt that a feeling of tension exists among the keen contest wallahs until the Trials and the Nats. are over, and a certain amount of the free-and-easy flying goes by the board in an all-out effort to do well in the big affairs.

One thing stands out a mile as a result of this year's big events, and that is the necessity for a recognised code of contest procedure, which shall become a standard understood by both officials and competitors alike. At present there are far too many niggling misunderstandings that need never arise if a recognised procedure was properly understood. The ridiculous situations that arose at this year's Nationals and Trials must not recur, for it is futile to appoint a Jury with no plan of action or authority on which to act, still less for the body of competitors to presume they have powers to modify the regulations to meet circumstances. Granted that is the



A good selection of senior members' models at a recent Wallasey M.A.C. Exhibition and Indoor Event.

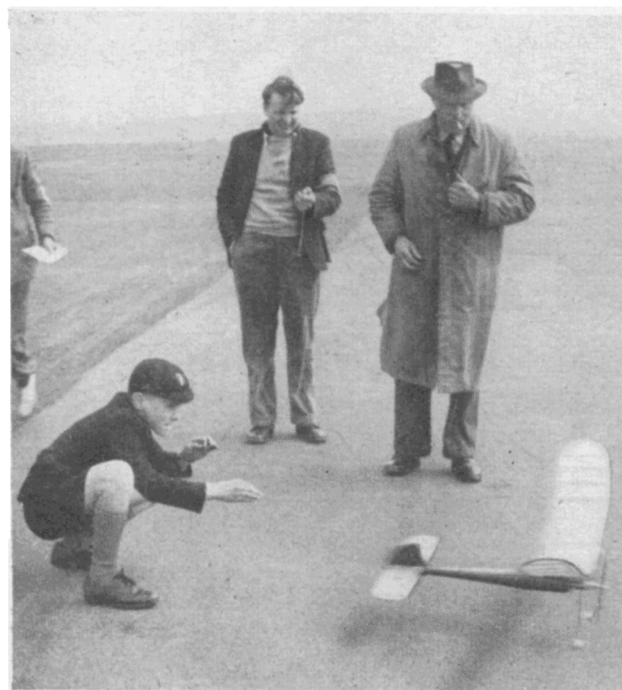
sole object of having a Jury or panel of Judges, but that condition was not recognised this year, and the appointment of a panel was rendered futile. I stand to be corrected, but I maintain that any rule or regulation is open to intelligent interpretation, and should be modified at the discretion of a selected panel of judges if the circumstances demand on the score of fair play and sportsmanship. We shall undoubtedly hear more of this anon, but I am emphatic in stating that the sooner this situation is made crystal clear the better for all.

The **NORTH-WESTERN AREA** are to be congratulated on being handed the sole organisation of the 1950 "Daily Dispatch" Rally, which will probably take place at Woodford Aerodrome on August 13th. The proceeds from this event should put them well in the "millionaire" class, and with a full programme of popular events, the attendance should be well up to previous standards.

I think our heartiest congratulations should go to the members of the **NORTHERN AREA** for the hard work they put in in connection with the York Nationals. The ground duties were well taped, and MacLeod of Hull proved an admirable "foreman," with a working party that put up enclosures and carried out other duties with real enthusiasm. I particularly recommend the "scavenging" group represented by a number of bods walking around with various containers slung to their persons, clearing up the litter as things went along, instead of the usual practice of leaving it until the last minute, and when most people had sheared off. This is a scheme well worth remembering for other occasions. Full marks also to Sam "Fiddle" Messom for a great deal of hard work and detail arranging, much of which work is unnoticed in the general preoccupation of flying.

A Frog-powered "Frankenstein" has been found about three miles S.W. of St. Albans, and the owner should apply to the finder, Mr. A. A. Rendle of Robert Pearce House, The College, Bishops Stortford, Herts, giving full confirmation of ownership.

I am happy to state that the **ROYAL AIR FORCE MODEL AIRCRAFT ASSOCIATION** has now got under way under the secretaryship of S/Ldr. E. D. Cable, and a



Youthful Dai Williams of Swansea, shows his elders—if not his betters—how to win the Power Event at the South Wales Area Rally held at Fairwood Aerodrome earlier in the year.

Weston Cup problem picture. This take-off shot from the North-Western Area Meeting at Bury, leaves us in some doubt as to who launched the model—as no less than four possibles are indulging in appropriate gestures.



block affiliation to the S.M.A.E. has just been negotiated. Notified in A.M.O. N513/1950 dated 10th May, 1950, members are now fully covered by Insurance and S.M.A.E. affiliation for payment of 1/- per annum. The £25,000 indemnity enjoyed by R.A.F. clubs flying on Air Ministry property also embraces the usual £5,000 cover when flying over civil property. All Commands will conduct their own centralised contests during the summer, and Command winners and runners-up will meet in the finals to be flown off as R.A.F. Championships at the end of September.

First of the R.A.F. meetings to be notified to us is that to be held by the **AYLESBURY & HALTON BRANCH**, in conjunction with the South Midland Area. This will take place at R.A.F. Station, Halton, on September 3rd, and will incorporate the usual open contests. Enquiries should be made to the Hon. Sec. R.A.F.A., F. C. Newman, 45, Russell Avenue, Aylesbury, Bucks.

The **TROWBRIDGE & D.M.A.C.** reformed and re-affiliated in January last, after a lapse of some nine years, and has already considerably increased membership. Keen interest is being displayed in Area events, and one or two hopes are entertained for success in the Wakefield Trials.

The **BRIGHTON & D.M.A.C.** are holding their well-known rally, the South Coast Gala Day, at a venue near Brighton on the 13th August. Power classes are held under engine capacity groups, and this year the rules will be H.L., with engine run of 20 seconds, three flights per man.

In spite of gales coinciding with hot weather, a junior of the **OXFORD METEORS M.F.C.** knocked out the club light-weight glider record to 6:40 with a "Walthew." At the moment there is a healthy balance between C/L and free flight, the one disturbing factor being the pinching of a Frog 500 engine (No. 13/661) from the box of member Mr. Reeves. Any news of this "missing" item will be welcomed by the club.

Membership of the **SWINDON M.A.C.** club has gone up by over 70 per cent. in the last year, the acquisition of Wroughton Aerodrome and a reduction in fees probably accounting for this. A good year's working was reported at their recent A.G.M., and we wish them every success for the future.

Thunderstorms interrupted the first **SOUTH WILTS RALLY**, organised by the **SALISBURY & D.M.E.S.**, and the uncertain weather kept many well-known modellers away. However, many long distance chaps turned up, and were compensated by taking away a number of prizes. Between the storms conditions were good, and one or two models were lost, including Croydon member Geesing's sailplane, which was recovered from 10 miles away. Final results were:—

Rubber	P. Norton	Basingstoke	6:24
	N. Standing	Croydon	4:43
Glider	T. A. Geesing	Croydon	11:31
	R. J. North	Croydon	7:14
	N. J. Butcher	Croydon	5:48
Power/Ratio	N. G. Marcus	Croydon	17:5
	M. Campbell	Eastleigh	13:3
	R. J. North	Croydon	12:3
C/L Stunt	N. J. Butcher	Croydon	299 pts.
	A. Piacentini	Salisbury	290 "
	D. Palmer	Basingstoke	232 "

Formed on Friday, the 13th January, the **SPEN VALLEY AND D.M.A.C.** have not allowed such an omen to worry them, and the group is a going concern with some 40 members. Various functions have been held in aid of club funds, and a regular feature are auction sales, the club retaining 5 per cent. "commission." Lack of flying field is the biggest headache

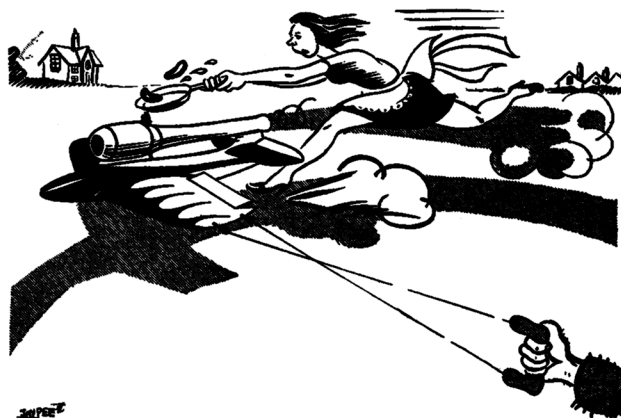
at the moment, but an offer by the Bradford lads to use Baildon Moor is a great help and much appreciated.

In a recent **ERDINGTON & D.M.A.C.** competition, A. A. Rutter's "Hi-climber" went o.o.s. in 3:30. H. Scarrott also lost his K.R.56 at 3:40 o.o.s., but managed to win with an aggregate of 5:24.5. Extensive use of a set of scales has shown that with one coat of banana oil the flying surfaces of a K.R.56 gain 2 ounces, and a Thermalist 13 ounces when "done all over."

The **SLOUGH M.A.C.** organised a local flying meeting on Chobham Common on the 14th June, with many neighbouring clubs taking part. The low times and power/ratios are partly due to models being lost o.o.s. on early flights, and it is anticipated that members will make greater use of de-thermalisers in future! Results:—

Glider	Harvey	Egham	3:57
	Gibbons	Maidenhead	3:53
	Robinson	Egham	3:03
Rubber	Thomas	Slough	4:07
Power/Ratio	Langley	Slough	3:63
	Rose	Cookham	3:33
	Light	Maidenhead	3:07

As a result of noise from C/L flying, the **CRYSTAL PALACE M.A.C.** have lost the use of their local flying field and are seeking help to overcome excessive noise from C/L models. Unless some solution to the problem can be found they will find it increasingly difficult to fly locally, so any suggestions will be much appreciated by the secretary, Mr. N. Whistler, 66, Maberley Road, Anerley, S.E.



This club is hoping to arrange a Team-racing event on Eton Playing Fields during August week provided sufficient support can be obtained. Full details can be obtained on application to the secretary.

With models going o.o.s. into a fog after 40 seconds, the **SUNDERLAND & D.M.A.C.** gave up trying to fly off for their "Potts Cup." P. McAloy's "Gili-chopper" vanished altogether and spent the next three days in a tree, until a friendly farmer sent him a postcard about it. Now possessing an elliptical dihedral helical pitch tailplane that doesn't appear on the plan, it obliged with a flight of 2:20 next time it was brought out!

**LEEDS M.F.C.** three star Wakefield fliers all qualified for the Trials, whilst one of the fairer sex, Miss B. Joyce, earned a well deserved second place in the Women's Challenge Cup flown at York. The 1950 club records are as follows:—

<b>R.T.P.</b>	<b>H. Tubbs</b>	<b>4:05</b>
<b>Glider (Lt.)</b>	<b>G. Joyce</b>	<b>8:21.5</b>
<b>Glider (Hy.)</b>	<b>G. Joyce</b>	<b>6:29</b>
<b>Power</b>	<b>A. Archer</b>	<b>2:15.5</b>
<b>Rubber</b>	<b>V. Dubery</b>	<b>5:36</b>

The **SHEFFIELD S.A.M.** boys are doing well this year, for following cleaning up the glider section at the Northern Area meeting at Rufforth, they met Barnsley on the home ground at Blacka Moor and beat them by 708.6 to 269.5, of which total Jerry Cartwright contributed 6:04 with his A/2 glider.

The **KING'S LYNN M.C.** are holding a Rally at Bircham Newton, Norfolk, on Sunday, July 30th, and guarantee a welcome to all interested in the following events: Power/ Ratio, Rubber, Glider, Radio-control (Ripmax course) and C/L Stunt. Cups are to be won outright, and entry forms and details of transport arrangements may be obtained on application to D. Stanley, Esq., Harrowdene, Wellesley St., King's Lynn.

Due to the great success of the last two C/L rallies organised by the **WALSALL M.A.C.** a further event will be held on August 7th, at which there will be open stunt, speed in all classes, and team racing if there are enough entries.

More than a dozen **NORTHERN HEIGHTS M.F.C.** members attended the York Nationals, where Bob Copland, flying a new semi-streamlined Wakefield won the "Model Aircraft" Trophy. Geoff Moss had success at a recent club power event with flights of 2 to 2½ minutes on a 15-second engine run, the surprising thing about the contest being a complete absence of thermals in perfect conditions. A recently-purchased cine-camera will be used to supplement the already considerable stock of film on the club's activities.

Mr. Finnegan of the **FURNESS M.A.S.** has broken the club open rubber record with a flight of 14:02, using a 24-in. span lightweight job. This chap also succeeded in winning the open rubber section at the rally held at Barrow, his average of 95 secs. in a stiff wind being very creditable.

The **ASHTON M.A.C.** has taken advantage of the recent spell of fine weather, and much good flying has been witnessed. This club turns out many fine flying scale models, and several of these have been showing their paces. F. D. Ward's "Sopwith Pup," first prize winner at the recent exhibition, caused some consternation when on a full tank it climbed to a considerable height, but, thanks to the still air and its circling glide, it landed only just outside the field. H. Parrish's three-year-old "Avro Tutor" and his newer "Fokker Trimotor, Southern Cross," also C. B. Jackson's low-wing "Aeronca" have also turned in much consistent flying.

**HAYES & D.M.A.C.** are really warming up this season. Willesden and St. Albans having already fallen to them in the London Area Comps. A record of ten entries was made in the Gutteridge, when Mr. Spratley raised the club Wakefield record to 27 minutes and placed 5th. Much good tailless flying has been done, and high hopes are again entertained for the Isle of Man Rally.

A real corker of a tall story comes in this month from R. A. Alexander of the Mersey M.F.C. A newspaper cutting dated May 15th confirms the tale, which tells of a million-to-one chance which provided Merseyside with an unusual aircraft carrier. Mr. Clayton's four-year-old Amco-powered model hit a thermal after a 30-second engine run and disappeared into the clouds in a seaward direction. "That's

that," thought the owner, and gave the model up for lost, even though it had his home address and phone number on it. Later that evening a local yachtsman rang up to say that the model had made a perfect landing on the cabin top of his 30 foot boat, "Jane," while she was sailing two miles off Hilbre Island. The plane had flown into the shrouds of the "Jane," spun gently round and landed upright and entirely undamaged on the cabin top. Indeed, truth is stranger than fiction!

And that's that for another month, and by the time my next "bash" at reports comes around I shall be frantically readying things for a trip to Scandinavia. Here's hoping the lads can bring back both trophies from Finland and Sweden—then heigh-ho for another meeting of top quality calibre as witnessed at Cranfield last year.

THE CLUBMAN.

#### NEW CLUBS.

**BANBURY M.E.S. (Aircraft Section).**  
A. Trainer, 44, Cherry Road, Banbury.  
**HARLINGTON & D.M.A.C.**  
W. A. Thompson, 4, Rush Hill, Eversholt, Bletchley, Bucks.  
**HUNGERFORD & D.M.A.C.**  
J. M. Gower, 26, High Street, Hungerford.  
**MANCHESTER "EAGLE" M.E.C.**  
E. Kinlay, 2, Dixon Street, Longsight, Manchester, 13.  
**SLEAFORD & D.M.A.C.**  
R. W. Cole, 8, Handley Street, Heckington, Sleaford, Lincs.

#### SECRETARIAL CHANGES.

**WALSALL M.A.C.**  
D. F. Marshall, 61, South Street, Walsall, Staffs.  
**RUNCORN M.A.C.**  
A. E. Ainsworth, 3, Briscoe Street, Runcorn, Ches.  
**LONDONDERRY M.A.C.**  
B. Dunleavy, 112, Glen Road, Londonderry.  
**SOUTHPORT M. & E.C.**  
T. Nelson, 41, Hawkshead Street, Southport, Lincs.  
**NORTH KENT M.A.S.**  
T. Newell, 32, Verdon Road, Bexley Heath, Kent.  
**SOUTHERN AREA S.M.A.E.**  
H. R. Doughty, Hillside House, Vyne Road, Basingstoke.

We regret that owing to the large number of Contest reports in this issue, it has been necessary to hold over until the following issue, "Radio Control Notes" and "Aircraft Described."

#### ERRATA.

Balloon Wheels marketed by Roadway Models, and reviewed on p. 433 of July AEROMODELLER, are priced 1/6 per pair and not 2/6 as stated.

#### STOP PRESS

We learn that the following are the lucky winners of the top three prizes in the grand Wakefield Draw, successfully concluded on the 10th June, 1950. Full list of the 100 prizewinners, together with other details will appear in our next issue.

1st Mr. F. Walker, 108, Highgate, Kendal. S.802.  
2nd Mr. S. Magson, Stock Lane House, Warley, Halifax. T.529.  
3rd Mrs. Riley, 106, Greenwood Ave., Blackpool. M.719

#### AMERICAN WAKEFIELD TEAM

Ed. Naudzius, Highland Park, Michigan.  
Lo Salisbury, Huntington Park, California.  
Fudo Takagi, San Diego, California.  
John Irving, Staten Island, New York.  
Roland Schmidt, Naperville, Illinois.  
A. W. Leftwich, Richmond, Virginia.

Naudzius is the only member of the '49 team to again win a place, though another—Ed. Lidgard—made the grade, but, being unable to make the trip yielded his place to Schmidt who may be present. It appears that it will be necessary for at least five of the American entries to be flown proxy, as arrangements for sponsorship of the Team have again fallen through.

#### CLASSIFIED ADVERTISEMENTS. (continued from page 544).

Weston Controline Plans are still available. Now only 2/10, post paid, for both A, 1-2 c.c., and B, 2.5-5 c.c. All from stock by return. Sopwith Pup, Bristol Fighter, Albatros, Fokker D7, Nieuport, Spad, S.E.5, J.U.87, Miss Los Angeles, G.B. Racer, U.S. Navy Racer, Hawker Fury (Bipe), Laird Racer, Chipmunk, Severn P35, Schmitt, Percival Proctor, Percival Vega, Miles Sparrowhawk, Tiger Moth, Gauntlett, Cosmic Wind, Aeronca, Boeing XF6B1, Mr. Mulligan, Chrislea Ace, Henschel HS123, Tipsey Junior. 1, Oxford Street, Weston-super-Mare.  
Business for sale in West London district, on main road; attractive model shop with active clientele. Could be greatly expanded under owner-managership. Full particulars from Messrs. F. W. Perkins & Co., Solicitors, 39, Margaret Street, W.1.  
Pirelli Rubber; Pirelli Rubber; Pirelli Rubber; Pirelli Rubber; Pirelli Rubber; Pirelli Rubber; Pirelli Rubber; Pirelli Rubber; Pirelli Rubber. The genuine stuff! 1" x 1/24", 14 oz. skeln 10/6, post 9d. Ripmax Ltd., 39, Parkway, Camden Town, N.W.1.

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### Knives

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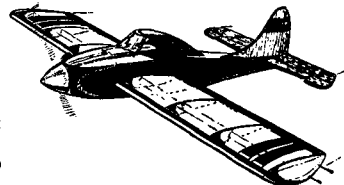
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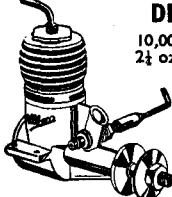
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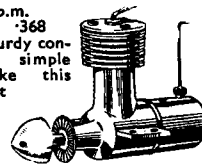
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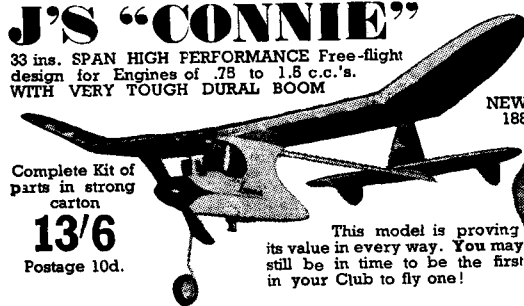
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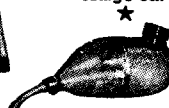


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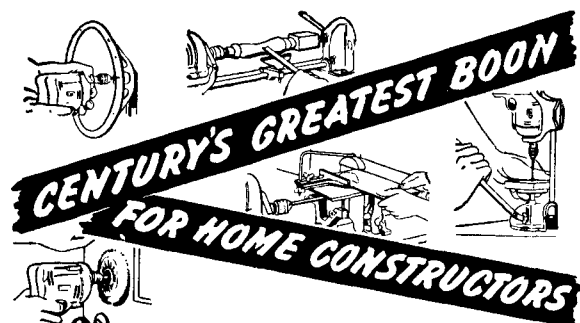
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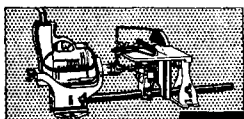
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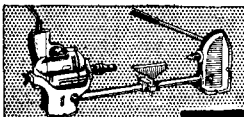


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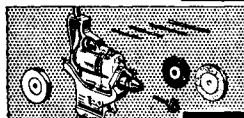


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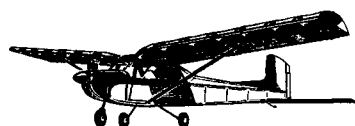
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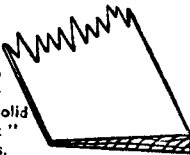
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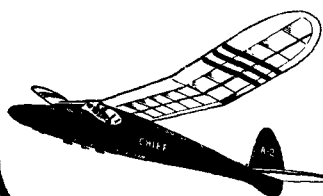
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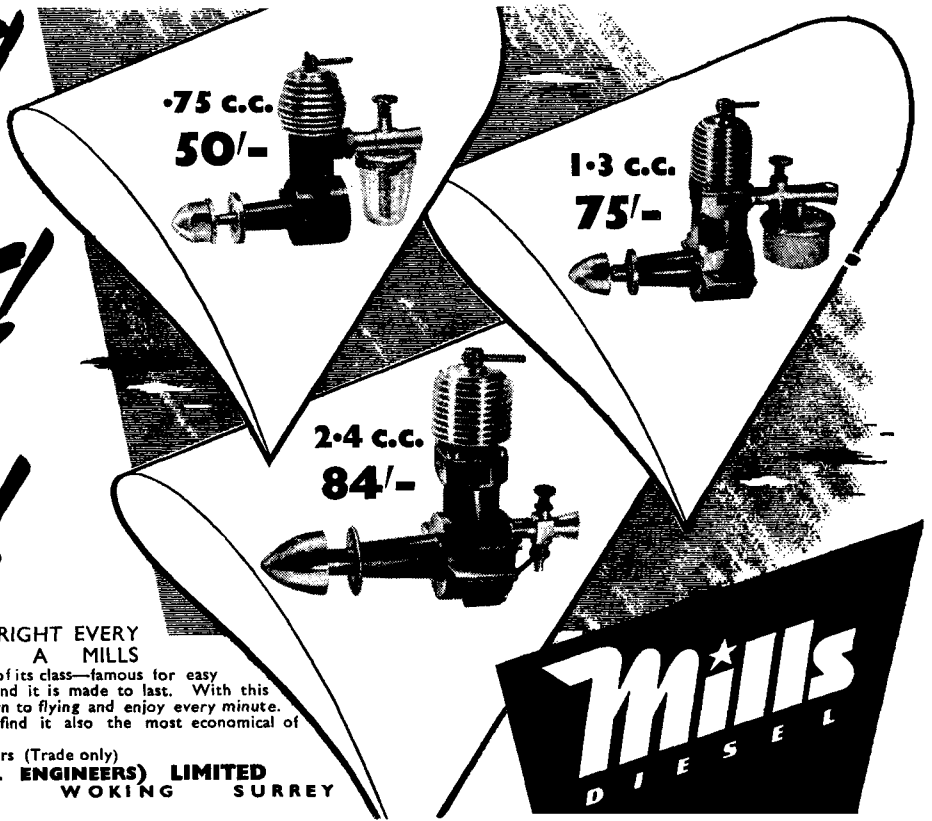
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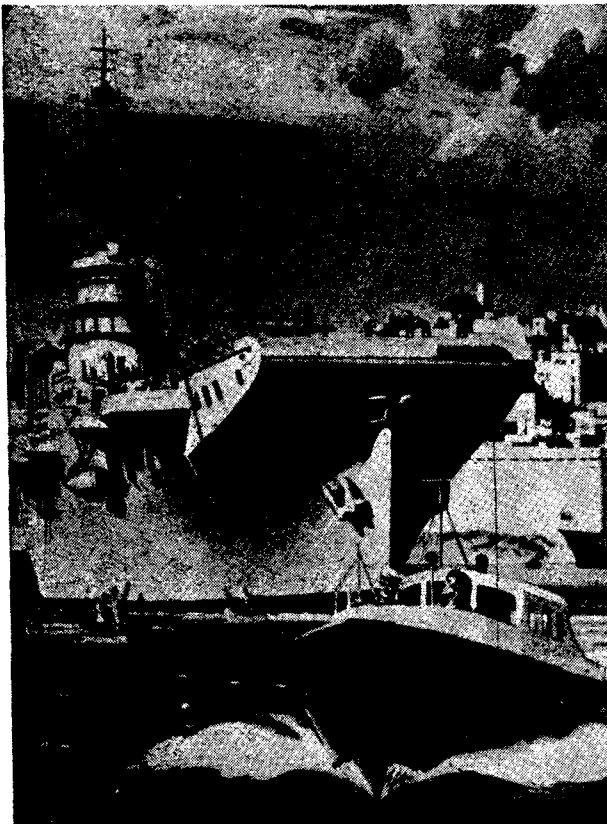
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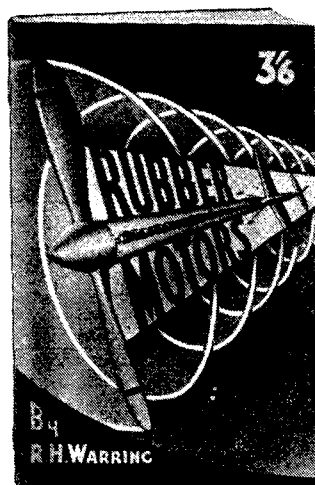
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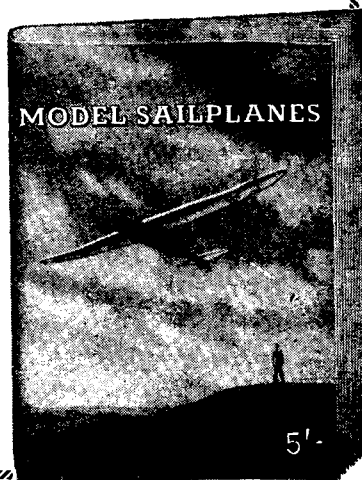
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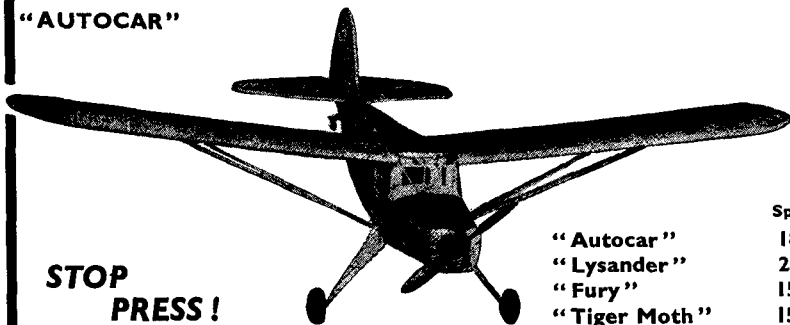
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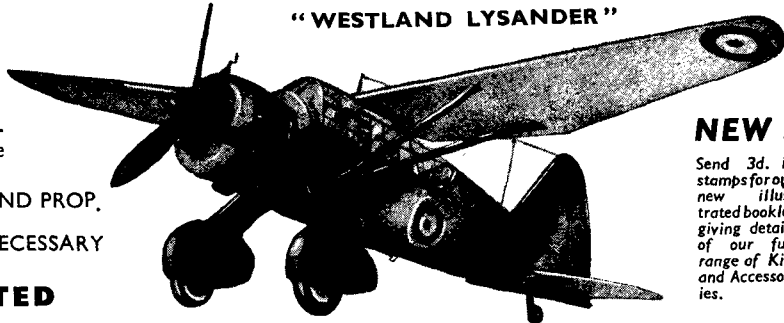
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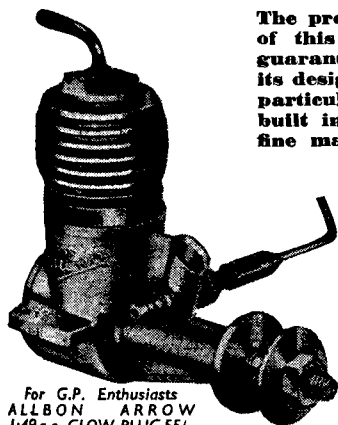
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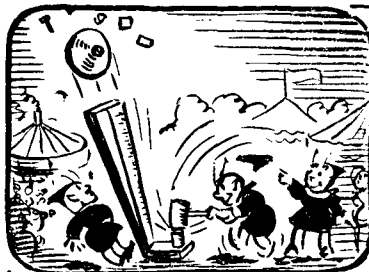
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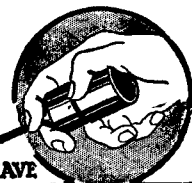
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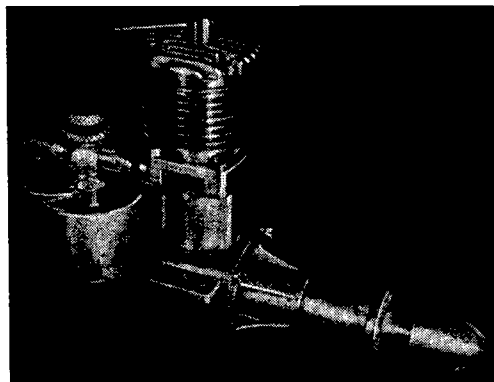
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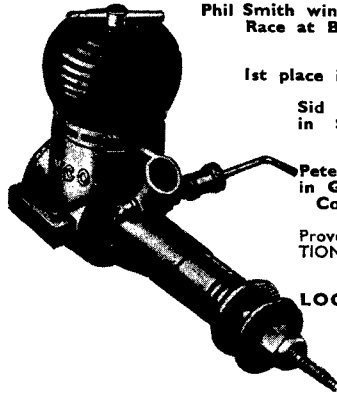
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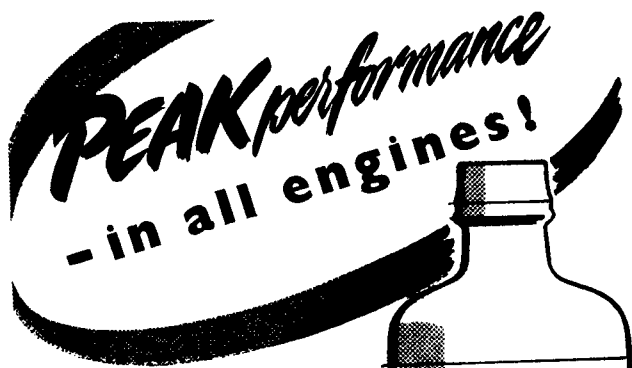
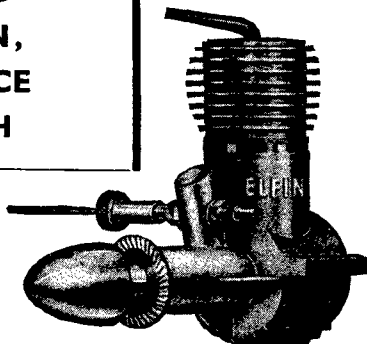
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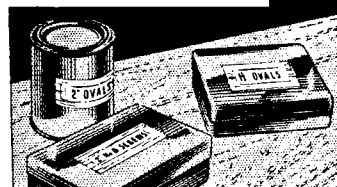
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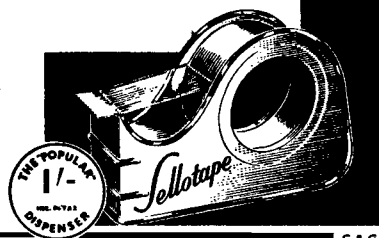
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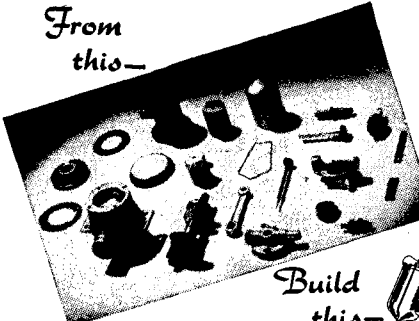
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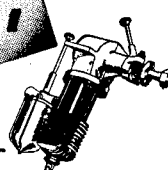
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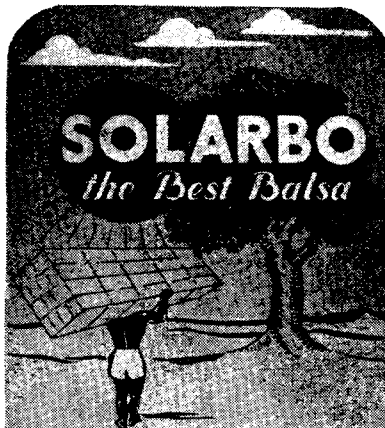
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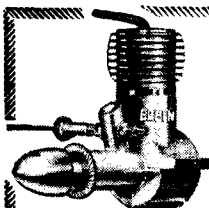
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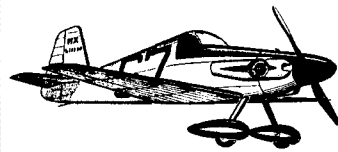
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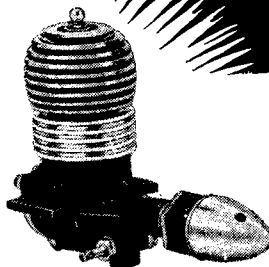
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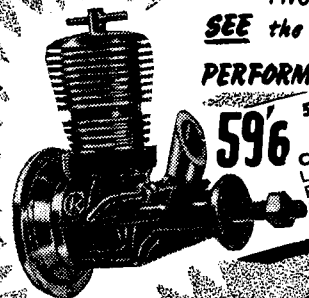
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1.9 c.c. **KESTREL**  
Weight 3½ ozs. 9,000 revs.  
Weight 3½ ozs. 9,000 revs.  
Plus radial mounting 4/6  
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(Continued on page 530)

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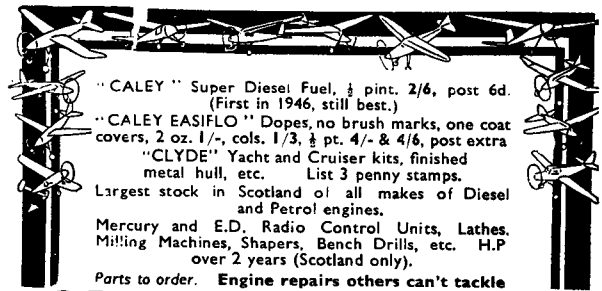
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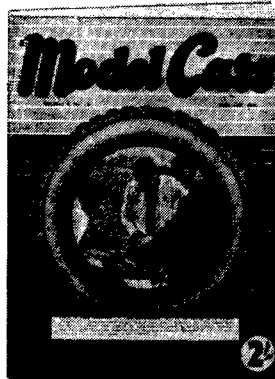
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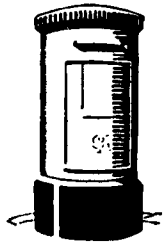
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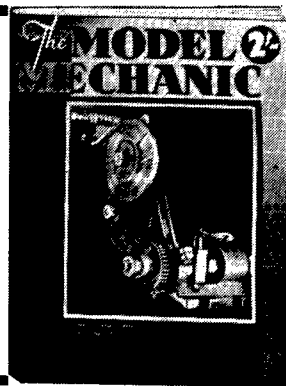
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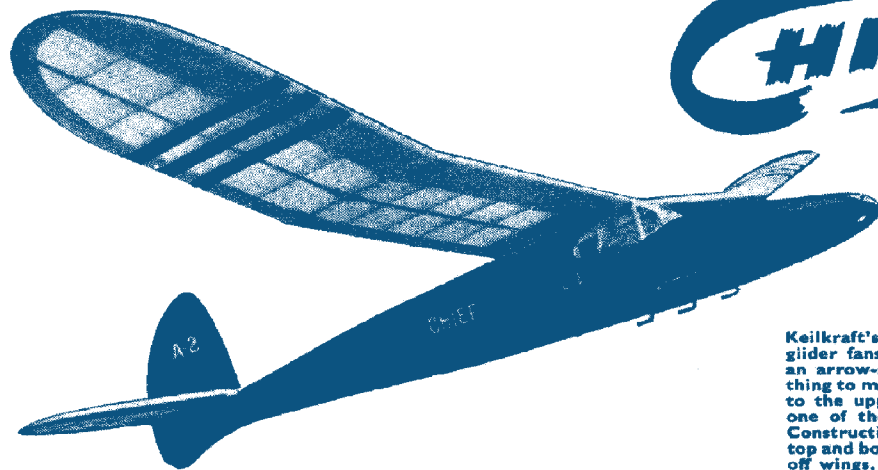
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