

The

FULLY ILLUSTRATED WAKEFIELD REPORT

AERO

MODELLER

THE NATIONAL JOURNAL OF MODEL AERONAUTICS

SEPTEMBER - - 1937

Vol. II

No. 22

Monthly

Price 6d.



**OFFICIAL JOURNAL
OF THE
SKYBIRD LEAGUE**

WHERE TO SEE MODEL AEROPLANES FLYING—

| Place. | Date. | Time. | Club. | Contest or Meeting. |
|---------------------|---------|-----------|---------------------------------|----------------------------------|
| Ards Airport .. | Aug. 21 | 7.30 p.m. | Ulster Model Aircraft Club .. | Flying. |
| " " .. | " 22 | 4.0 p.m. | " " " " .. | " |
| Portslade Downs .. | " 22 | Day | Brighton and District A.C. .. | Lucas Cup. (Speed). |
| Mitcham Common .. | " 22 | 3.0 p.m. | Park Model Aircraft League .. | Climbing Contest. |
| Ards Airport .. | " 28 | 3.30 p.m. | Ulster Model Aircraft Club .. | " Black" Cup. |
| " " .. | " 29 | 4.0 p.m. | " " " " .. | " " Continued. |
| Portslade Downs .. | " 29 | Day | Brighton and District M.A.C. .. | Scale Models (H/L), 2/6 prize. |
| Edgware Common .. | " 29 | Day | Edgware M.A.C. .. | Visiting Day. |
| Worthing .. | Sept. 5 | Day | Brighton and District M.A.C. .. | S.M.A.E. Biplane Contest. |
| Wimbledon Common .. | " 19 | 3 p.m. | Park Model Aircraft Club .. | Duration Contest, Farrow Shield. |
| Portslade Downs .. | " 19 | Day | Brighton and District M.A.C. .. | Farrow Shield. |
| Wimbledon Common .. | " 26 | 3 p.m. | Park Model Aircraft Club .. | Seaplane Contest. |
| Patcham-Chattri .. | " 26 | Day | Brighton and District M.A.C. .. | Brighton Cup (H/L). |

Notice to all Club Secretaries.—Each month we shall publish a list as above, and we invite Club Secretaries to post us each month a list of their fixtures for the coming month for insertion on this page.

Club Secretaries will greatly assist by setting out the details in a similar manner to those above.



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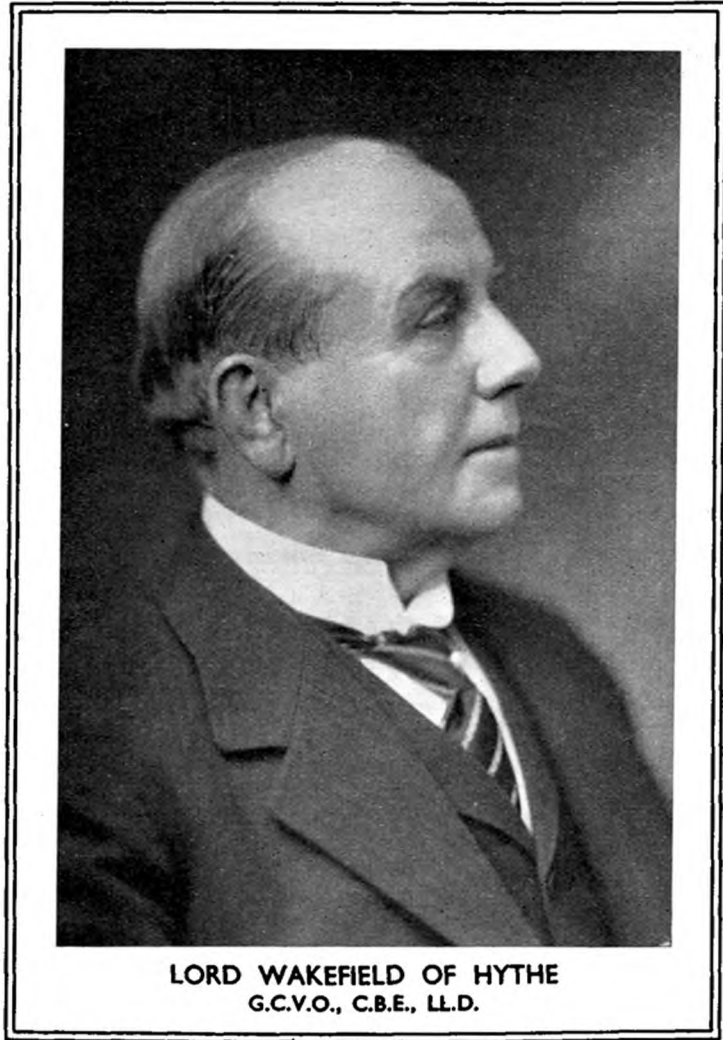
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The AERO MODELLER

Vol. II No. 22

SUBSCRIPTION RATES
Inland and abroad. 7/6
per annum. Registered
at the G.P.O. for trans-
mission by Canadian
Magazine Post.

SEPT., 1937

ALLEN HOUSE, NEWARKE STREET, LEICESTER
FIRST NATIONAL JOURNAL OF MODEL AERONAUTICS

EDITORIAL

Model Aeronautical Press Ltd., proprietors of THE AERO-MODELLER, have great pleasure, and no little pride, in presenting to their many readers, both in Great Britain and all over the world, fully illustrated reports on the contests for:

THE WAKEFIELD INTERNATIONAL TROPHY,

THE SIR JOHN SHELLEY CUP,

THE BOWDEN INTERNATIONAL TROPHY,

AND THE BANQUET GIVEN BY LORD WAKEFIELD OF HYTHE IN HONOUR OF

THE COMPETING TEAMS FOR THE WAKEFIELD INTERNATIONAL TROPHY.

Realising the international importance of these contests, held by kind permission of

C. R. FAIREY, ESQ.,

at the Fairey Aerodrome, Great West Road, London, on August 1st, and 2nd, 1937, we have spared no expense in reporting these events as fully as possible, even to the extent of holding back several special features until our next issue.

We trust that those many thousands of aero-modellists who were unable to be present in person will enjoy reading the following pages, and will gather therefrom some of the intense enthusiasm and pleasure which was enjoyed by all the competitors and visitors to the first two-days' international meeting held in Great Britain.

We wonder whether all aero-modellists realise the debt which Model Aviation in Great Britain owes to

DR. A. P. THURSTON (PRESIDENT)

AND THE COUNCIL OF THE SOCIETY OF MODEL AERONAUTICAL ENGINEERS.

Dr. Thurston has for many years been the "guide, philosopher and friend" of the Council at their meetings, and we trust that not only clubs, but individual flyers will give their increasing support to the Society of Model Aeronautical Engineers, recognised by the Royal Aero Club as the body governing Model Aeronautics in Great Britain.

CONTENTS

| | | | |
|---|-----|-----------------------------|-----|
| Officers of The Society of Model Aeronautical Engineers | 310 | The Speug | 327 |
| Editorial | 311 | Our Competition Page | 332 |
| The Wakefield International Trophy | 312 | Book Review | 336 |
| The Wakefield Eliminating Trials | 316 | News from the Clubs | 337 |
| Sir John Shelley Cup and Bowden Trophy Competitions | 318 | The Skybird League | 340 |
| A Banquet | 320 | The R.E.8 | 343 |
| The Society of Model Aeronautical Engineers | 323 | Super Skybirds | 345 |
| At the Sign of the Windstocking | 325 | Skybird League News | 346 |

THE WAKEFIELD INTERNATIONAL TROPHY

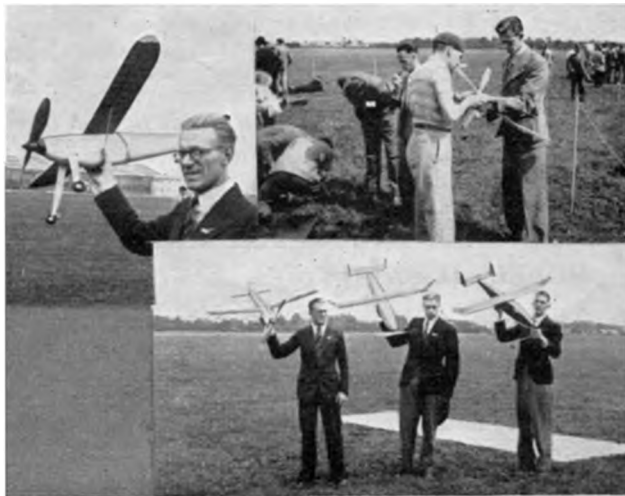
HELD ON AUGUST 1st, 1937, AT FAIREY'S AERODROME

(By Kind Permission of C. R. Fairey, Esq.)

Fully Illustrated Report by AERO-MODELLER Staff Reporters—All Photographs taken by our Special Staff Photographers

“I AM glad to be able to assist in this movement, a rivalry between nations which is pure enthusiasm and goodwill.” With these words Lord Wakefield further evinced his appreciation of the fine international spirit which aero-modelling arouses; the Wakefield International Contest on August 1st, won by M. Fillon, of France, with an average of 253.23 sec., was, perhaps, one of the finest examples yet seen. In previous contests the international atmosphere has been lacking in both entries and personal contact, foreign machines usually being flown by proxy. This year twelve nations entered, and of these nine sent men and machines.

The early morning weather showed little prospect, wet and a freshening wind, and it was with dampened spirits that we made our way down the Great West Road in the early hours. The delight of the contestants can best be imagined when, at about 11.30 a.m., the sun broke through with ever-increasing intensity. (This seems a typical prelude to competitions, as we remember that the '36 trials in America were held under similar circumstances).



Top right: "Rusky" and helper prepare the Canadian entry. Bottom (left to right) Belgian and two Swedish entries. Top left: The Belgian model. Notice the clear design.

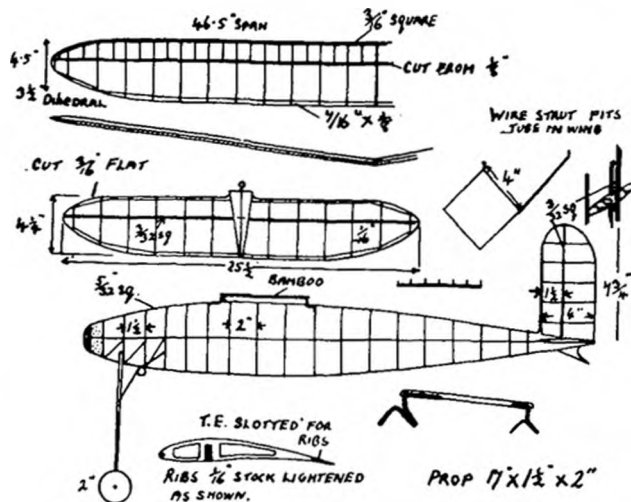
To those "not in the know" the constant arrival at the field of different foreign competitors was somewhat staggering; for so many years have countries made rash promises, and then on the actual day just the usual French, U.S.A. and British teams would appear! This year the world was represented *en masse*, the countries entered being France, New Zealand, U.S.A., Sweden, Holland, Germany, South Africa, Belgium, Canada, and Norway. As was perhaps only natural, the Yankee boys come in for

most of the attention. Frank Zaic, perhaps the best known modellist in the world, was one of the first to try out his machine. Very nicely built, it had twin rudders, monocoque fuselage, and a spinner.

Resplendent in peaked cap and uniform were Messrs. Fish and Bodle, Akron representatives, whilst Alvic Daigue, of Tulsa, Oklahoma, and Mr. Beadleman formed the remainder of the American contingent. Soon the "golden voice" of Mr. J. C. Smith, S.M.A.E. Competition Secretary, was heard over the "mike" calling all contestants in, and, taking the opportunity of the "lull" we made some sketches of the salient features of some of the foreign aircraft.

Soon the competition was under way. First off was France. The designs were not unorthodox, having flat-sided fuselages, with airscrews of a design first made popular by early American efforts. All were finished orange, with French tricolour stripes running across the wings and fuselage. The climb was fairly slow but steady, and in the air the impression was given that a 4 oz. job rather than 8 oz. was flying.

The Swedish entrant provided the first surprise. Whilst he wound up a study of the machine was made. The fuselage was very long, with a resultant large cross-section. Mounted on the top of this was a wing of unfamiliar design to British eyes. Of fairly high aspect ratio, about 10-1, seventy-five per cent of the surface was flat with no dihedral. The remainder in the form of wing tips was sharply inclined upwards, and gave the machine



M. Fillon's winning machine.



Top: Ready! A French competitor disengages his winder.
Bottom: M. Fillon with the winning model.

M. Fillon demonstrates the sunny smile induced by victory. Although but young, M. Fillon showed many an "old 'un" how to fly.

Top: M. Demois holds aloft the winner. This shows the profile of the machine very well.
Bottom: Another French model. Note the tri-colour stripes.

perfect stability. Twin rudders were also employed. Mr. Anderson then placed his machine on the board and released the prop. We were surprised! The model positively whistled across the ground and then pulled up to a terrific steep climb to about 200—300 feet. The spectacular nature of this flight earned a round of applause, and it was evident that some pretty stiff competition was going to be put up.

Next, the New Zealand entry had a little trouble and, unfortunately, had to retire.

Americans seem to have a perfect passion for making models at the last moment, and Mr. Bodle built his entire machine, bar the airscrew, while he was in England, staying up till 4 a.m. on the Sunday to finish it. His second flight with it put up 199.4 sec. Of the American entrants two employed polyhedral wings, while the others were of conventional design. Mr. Fish kept his rubber on ice to store its energy; he was using 26 strands of $\frac{3}{16}$ in. brown rubber in a single skein turning an 18 in. x $1\frac{1}{4}$ in. x 2 in. airscrew. How the fuselage could withstand so much "juice" is amazing! Mr. Struck's machine, flown by Beadlemann, was a diamond fuselage job with a midwing-taper. When launched the torque was so great that after taking off the model performed two rolls vertically before straightening off to a steep climb!

Mr. Fish was using a torque balance for recording the turns in his motor. The balance was hooked on to the propeller shaft, and when the requisite turns were obtained the balance weight would rise. A very cute idea!

The Belgians, of whom little model work was known, came to the fore with a vengeance. In general lay-out similar to the U.S.A. design the Belgian job had a climb

just as fast and steep, with an even better glide. A Belgian entrant had a monocoque fuselage, spinner, spats, and a strut-braced wing, but unfortunately had some trouble with his rubber slipping the hooks.

The German entries were very neatly built, and gave smooth, very fast flights, and appeared to be employing hardwood airscrews. One machine had an airscrew 20 in. in diameter. An unusual design of theirs which was not very successful, was a low-wing with knock-out panels, a peculiar flattened fuselage of large proportions, and a tail plane mounted high on the rudder. One of the German machines was timed out of sight overhead. It is of interest to note that they were using a synthetic white rubber.

Against all these fast jobs the English models took a back seat when it came to spectacular flying, although Mr. Leadbetter's machine was extremely fast. Mr. Bullock had lost his original model in the Wakefield Trials, and had built an entirely new machine. This is worth mentioning, as his model was beautifully finished, with no trace of hurry or skimpy work. All control surfaces were hinged and the fuselage was faired to a round section with stringers. In the air the machine was a picture of grace, rising smoothly with no wobble or deviation, and making a large sweeping circle, climbing all the time. There was a complete lack of brute force about the design, and the durations he obtained were the result of sheer good flying. (Mr. R. Bullock won the trophy in 1929).

Some excitement was caused by an unusual French entry coming to the take-off board. Employing two propellers running simultaneously, one at the front and one at the back, the aircraft had no wheels, but took off quite successfully on three wire skids. Unfortunately, bad luck



Top left: Mrs. Thurston speaking over the "mike."
Bottom: An unusual French job takes off. Note the twin airscrews.

Top: Wakefield entrant taking off.
Centre: S. R. Crow flying the S. African model.
Bottom: The sole Norwegian entry.

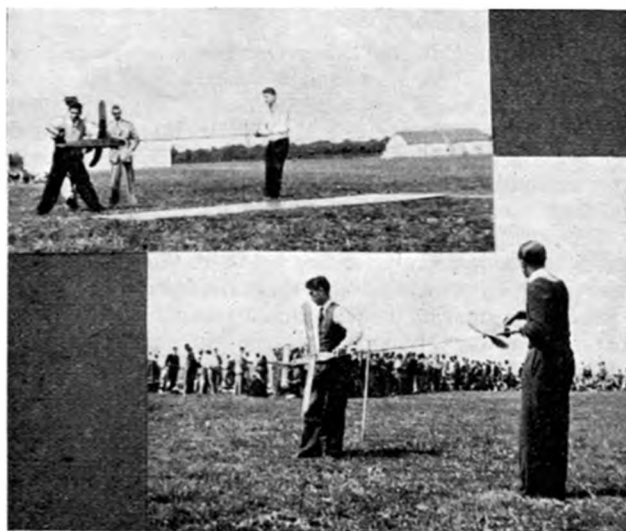
followed it, for just after taking off the rubber burst or slipped its hooks, holes appeared in the fuselage, and, amidst a shower of wreckage, the machine fell out of control to the earth some 100 feet below! (It appears that "push-pull" designs require careful synchronization of airscrews, otherwise there is a tendency for the rear to slide round if it develops too much thrust).

The Dutch team were fortunate in having with them the well-known modeller, M. Van Hattum, who, in conjunction with Mr. Pelly-Fry, produced a great number of designs some years ago. (M. Van Hattum also designed some excellent wing sections for model work). The Dutch machines were very nicely built, mostly of the twin rudder type, a low-wing job which flew quite well, and a cabin job. They seemed a trifle under-powered, however, and their take-offs were rather laborious.

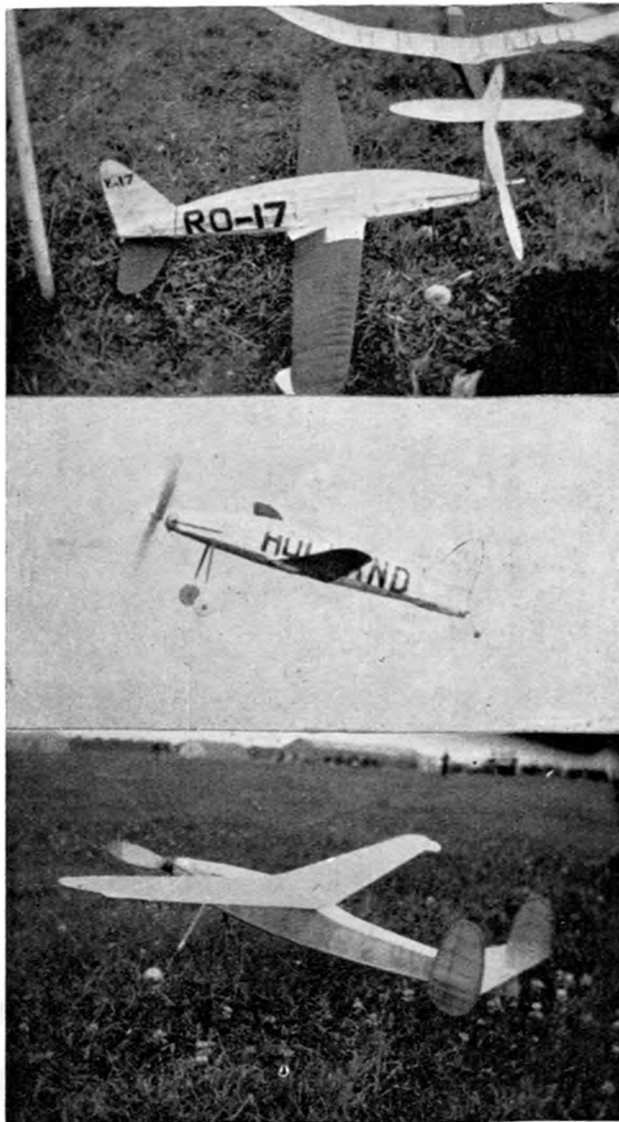
The Canadian jobs were exceptionally well finished; in fact, the one Mr. Rushbrooke was flying was so neatly made that "Rushy" must have felt quite at home flying it. The general design was a flat-sided cabin fuselage finished in glossy red. Wings, straight in centre, with upturned tips, flying surfaces finished with silver tissue; very fast performer. On one occasion we observed two machines in the air together, a French and U.S.A. The French job had struck a "riser," and was going up rapidly. The other was only about 200 feet away and circling in the opposite direction, could get nothing at all, and was descending rapidly! (This serves to show how easily competitions are won and lost!) The sole Norwegian entrant was an extremely beautiful job, and was quite a surprise to many. The machine, however, was badly

trimmed with regard to its line of thrust, with the result that the first burst of power was lost in a series of terrific stalls, after which it would level out and start "going places"! Late in the afternoon, in order to speed up results, Mr. Smith declared the contest free for all, and instead of coming in strict rotation it was a question of "first come, first served." This appealed mightily to the Americans, and almost as soon as the words were spoken Bodle was out on the board with a couple of timers, and winding up! With things moving so fast it was almost impossible to check everybody's flight; in fact, on one occasion, five models were in the air together. M. Fillon, unaware that he had won the trophy, was scouring the countryside for it, and the model was eventually found by M. Denois, who returned in a highly excited condition, waving the model above his head! We must say that the trophy could not have gone to a more deserving winner,

as the French have put up determined efforts to obtain the trophy for the past four years, sending a team of models and one man, M. Vincere, over to the States with the British team last year.



These two pictures show contrast in power winding. Notice the tense air about the U.S.A. (above) compared with the easy way in which the French wind (bottom).



Top: Dutch low-wing on the ground, and, centre, in the air.

Bottom: Dutch twin-rudder job. Notice the paper trimming aileron.

STOP PRESS

The petrol competition for which *Practical Mechanics* were offering a prize of £50 was postponed until September, the weather on August 14th being so atrocious that flying was impossible. There were twelve entries.

Competitors for the National Trophy on Sunday, August 15th were badly handicapped by a very high wind which amounted to gale force at times! It is most unfortunate that a contest of this nature, which necessitates entrants coming from all over the country, should have such bad flying conditions, and such provincial aero-modellists as did appear deserve to be congratulated for their enthusiasm. Results were as follow:—

| | |
|------------------------------|-------------|
| 1st Blackheath M.F.C. | 115'63 sec. |
| 2nd T.M.A.C. | 86'89 sec. |
| 3rd North Kent M.F.C. | 79'42 sec. |

WAKEFIELD CUP RESULTS, 1937.

| | | | | AVERAGE. |
|----------------------------|----------------------|-----|-----|--------------|
| 1. E. Fillon | France | ... | ... | 253'23 secs. |
| 2. R. Bullock | Great Britain | ... | ... | 194'53 " |
| 3. R. T. Howse | Great Britain | ... | ... | 193'46 " |
| 4. Chabot | France | ... | ... | 157'6 " |
| 5. R. Clasens | Belgium | ... | ... | 156'83 " |
| 6. B. Anderson | Sweden | ... | ... | 155'73 " |
| 7. M. McKinney | Belgium | ... | ... | 155'05 " |
| 8. G. Stark | Germany | ... | ... | 151'83 " |
| 9. K. Schmidtberg | Germany | ... | ... | 147'65 " |
| 10. A. Dague | America | ... | ... | 145'1 " |
| 11. D. Bodle | America | ... | ... | 136'16 " |
| 12. B. Lindn | Sweden | ... | ... | 132'73 " |
| 13. A. Lippman | Germany | ... | ... | 122'1 " |
| 14. Ducrot | France | ... | ... | 117'36 " |
| 15. J. Leadbetter | Great Britain | ... | ... | 114'0 " |
| 16. A. Palmgren | Sweden | ... | ... | 109'3 " |
| 17. E. E. Olsen | Norway | ... | ... | 102'1 " |
| 18. H. Fish | America | ... | ... | 86'5 " |
| 19. Robert | France | ... | ... | 82'63 " |
| 20. A. Van Wynerset | Belgium | ... | ... | 82'23 " |
| 21. E. Wentzel | Sweden | ... | ... | 81'16 " |
| 22. F. Zaic | America | ... | ... | 78'7 " |
| 23. J. Worden | Great Britain | ... | ... | 74'0 " |
| 24. W. G. Alexander | New Zealand | ... | ... | 71'3 " |
| 25. J. E. Adams | Canada | ... | ... | 70'083 " |
| 26. E. A. Davies | Great Britain | ... | ... | 68'13 " |
| 27. E. Endean | South Africa | ... | ... | 65'73 " |
| 28. J. Lemick | Canada | ... | ... | 62'216 " |
| 29. G. Haase | Germany | ... | ... | 56'825 " |
| 30. E. Klose | Germany | ... | ... | 51'783 " |
| 31. P. Dalgety | South Africa | ... | ... | 51'26 " |
| 32. A. Menzel | Germany | ... | ... | 50'216 " |
| 33. P. Armes | Germany | ... | ... | 49'96 " |
| 34. Blanchet | France | ... | ... | 43'56 " |
| 35. E. Chasteneuf | Great Britain | ... | ... | 38'93 " |
| 36. Parker | New Zealand | ... | ... | 36'93 " |
| 37. H. Mosch | Holland | ... | ... | 35'1 " |
| 38. H. Struck | America | ... | ... | 34'8 " |
| 39. J. Besemer | Holland | ... | ... | 26'25 " |
| 40. H. Kerkhoff | Holland | ... | ... | 24'6 " |
| 41. Desnoes | France | ... | ... | 19'0 " |
| 42. T. Van Velsen | Holland | ... | ... | 16'9 " |
| 43. G. Collier | New Zealand | ... | ... | 12'5 " |
| 44. Wazoo 11 | New Zealand | ... | ... | 11'46 " |

* (R. Copland)
 * (C. S. Rushbrooke)
 * (S. R. Crow)
 * (A. G. Newton)
 * (E. W. Evans)
 * (R. Bridgen)
 * (J. Bieberman)
 * (H. W. Rexley)
 * (C. Buffery)

ENTRIES.

| | | | |
|---------------------|---|----------------------|---|
| South Africa | 4 | Great Britain | 6 |
| Canada | 3 | Holland | 5 |
| New Zealand | 4 | Germany | 6 |
| France | 6 | Belgium | 3 |
| America | 5 | Sweden | 5 |
| Norway | 1 | | |

RETIRED.

De Boer, Holland.
 I. J. Haffey (T. Ives), Canada.
 T. W. Harker (G. J. Liggett), South Africa.
 A. Garvie (A. Judge), South Africa.

* Proxy fliers.

LOST, STOLEN, OR BORROWED

"The Council of the S.M.A.E., regretting that one of our French visitors lost a camera on the field at Fairley which has not been returned, offer £1 for information which will lead to the return of the missing camera."

THE WAKEFIELD ELIMINATING TRIALS

July 18th, 1937

Competitors were favoured with fine weather this year and the performance of the heavily loaded models come as a surprise to many. Mr. Bullock unfortunately lost his machine and had to build afresh for the actual contest. Geared entries were in the minority, though J. Worden (T.M.A.C.) had success in this direction. J. W. Kenworthy's model had a fine climb but suffered from a badly trimmed glide.

After such a fine exhibition earlier in the year it was most unfortunate that "Bob" Copland could not secure a place in the team. It is interesting to notice that over 24 competitors put up over 100 secs. average, an excellent showing for 8-ounce machines. Messrs. Buffery and Judge were exhibiting some splendid examples of moncoque fuselage work and fine streamlining, but unfortunately their machines were not finished until the last moment and they had insufficient test flying.



Top: Mr. Howse's entry.

Centre: J. B. Allman and gears.

Bottom: R. N. Bullocks shows off the clean lines of his model.

Average.

| | | |
|--|-----------|----|
| 74. F. Woodbridge ... Luton | 34.3 | .. |
| 75. A. W. Cripps ... Bradford | 31.63 | .. |
| 76. P. C. Newport ... North Kent | 31.63 | .. |
| 77. J. E. Bollingham... Banbury (Unafil.) | 30.3 | .. |
| 78. P. Montgomery ... Edinburgh | 29.16 | .. |
| 79. W. Knapp ... P.M.A.L. | 28.2 | .. |
| 80. G. Suggett ... North Kent | 27.2 | .. |
| 81. E. A. Clements ... T.M.A.C. | 25.9 | .. |
| 82. D. S. Bird ... Northern Heights | 23.45 | .. |
| 82. J. Suggate ... Harold Wood | 20.68 | .. |
| | (Unafil.) | |
| 83. F. H. Dillistone ... P.M.A.L. | 18.1 | .. |
| 84. C. R. Clarke ... Croydon | 17.26 | .. |
| 85. A. H. Liggitt ... T.M.A.C. | 16.4 | .. |
| 86. T. W. Wickens ... North Kent | 15.6 | .. |
| 87. H. E. White ... Northern Heights | 15.283 | .. |
| 88. M. R. Knight ... T.M.A.C. | 14.3 | .. |
| 89. F. J. G. Skinner ... Rugby M.F.C. | 11.78 | .. |
| 90. D. V. Jenkins ... Unattached | 8.5 | .. |
| 91. H. Ogden ... Bradford | 2.26 | .. |
| 92. A. Doe ... Blackheath | 1.4 | .. |

| | | |
|---|-----------|-------|
| 1. E. Chasteneuf ... Blackheath | 287.4 | secs. |
| 2. R. T. Howse ... Bristol | 276.7 | .. |
| 3. J. E. Leadbetter ... Southport | 265.3 | .. |
| 4. R. N. Bullock ... Blackheath | 261.2 | .. |
| 5. J. Worden ... T.M.A.C. | 214.93 | .. |
| 6. E. A. Davies ... North Kent | 211.0 | .. |
| 7. A. G. Newton ... Harrow (Unafil.) | 209.86 | .. |
| 8. R. B. Sisson ... Liverpool (Unafil.) | 201.43 | .. |
| 9. A. W. Attree ... Dartford | 198.9 | .. |
| 10. R. Copland... Northern Heights | 191.2 | .. |
| 11. H. Holbrook ... Lancs. | 163.7 | .. |
| 12. V. Rix ... Unattached | 161.16 | .. |
| 13. C. S. Gibson ... North Kent | 151.0 | .. |
| 14. F. E. J. Almond ... North Kent | 142.5 | .. |
| 15. E. W. Evans ... Luton | 136.0 | .. |
| 16. R. Smith ... North Kent | 126.3 | .. |
| 17. I. W. Hall ... Northern Heights | 126.0 | .. |
| 18. A. H. Lee ... Bristol | 117.5 | .. |
| 19. R. A. H. Johnson ... Bradford | 116.5 | .. |
| 20. C. T. Buffery ... Northern Heights | 116.4 | .. |
| 21. R. T. Parham ... Edgware (Unafil.) | 113.0 | .. |
| 22. H. King ... P.M.A.L. | 110.53 | .. |
| 23. H. Greenwood ... Bradford | 110.5 | .. |
| 24. J. B. Allman ... Midland | 109.8 | .. |
| 25. F. Comber ... Liverpool (Unafil.) | 107.7 | .. |
| 26. H. Jones, Junr. ... North Kent | 103.5 | .. |
| 27. G. J. Liggett ... T.M.A.C. | 103.2 | .. |
| 28. J. W. Kenworthy ... Daily Dispatch | 101.78 | .. |
| | (Unafil.) | |
| 29. E. Woodcock ... North Kent | 99.5 | .. |
| 30. H. E. Taylor ... Bradford | 96.93 | .. |
| 31. E. Roes ... Northern Heights | 96.5 | .. |
| 32. W. Binnersley ... Midland | 96.1 | .. |
| 33. S. R. Crow... Blackheath | 95.1 | .. |
| 34. H. N. Simmons ... Blackheath | 95.0 | .. |
| 35. C. A. Rippon ... Northern Heights | 90.31 | .. |
| 36. W. H. Conn ... Bristol | 88.3 | .. |
| 37. T. H. Ives ... Hayes & District... | 87.2 | .. |
| 38. W. Worden ... T.M.A.C. | 82.307 | .. |
| 39. T. Charlton ... Newcastle-on-Tyne | 77.4 | .. |
| | (Unafil.) | |
| 40. P. T. White ... Luton | 76.8 | .. |
| 41. H. White ... Luton | 74.7 | .. |
| 42. W. F. Marriott ... Edgware (Unafil.) | 71.7 | .. |
| 43. L. Stott ... Bradford | 71.5 | .. |
| 44. R. W. Mackenzie ... Blackheath | 72.506 | .. |
| 45. R. F. L. Gosling ... Bradford | 70.2 | .. |
| 46. K. B. Evans ... Bournemouth | 70.1 | .. |
| 47. R. F. Brigden ... Brighton | 67.9 | .. |
| 48. M. V. Molony ... Croydon | 67.1 | .. |
| 49. C. W. Needham ... Bristol | 66.5 | .. |
| 50. H. W. Bexley ... Luton | 66.12 | .. |
| 51. R. A. Hinks ... Luton | 65.7 | .. |
| 52. F. Dewell ... Shorts (Unafil.) | 64.6 | .. |
| 53. D. B. Worley ... Northern Heights | 64.06 | .. |
| 54. R. W. Stubbs ... Leytonstone | 61.36 | .. |
| 55. C. S. Rushbrooke ... Lancs. | 60.2 | .. |
| 56. A. A. Judge ... T.M.A.C. | 60.06 | .. |
| 57. C. W. Jowett ... Bradford | 59.4 | .. |
| 58. J. Livingston ... Croydon | 58.4 | .. |
| 59. D. A. Paveley ... Unattached | 54.1 | .. |
| 60. T. Jones, Senr. ... Unattached | 52.3 | .. |
| 61. W. Garcia ... Unattached | 52.1 | .. |
| 62. S. W. Smith ... Midland | 51.4 | .. |
| 63. G. W. Smith ... Luton | 49.6 | .. |
| 63. A. I. Elgar ... Northern Heights | 49.6 | .. |
| 64. T. H. Newell ... North Kent | 48.8 | .. |
| 65. R. H. Hook ... Blackheath | 48.41 | .. |
| 66. N. Blacklock ... Wembley (Unafil.) | 45.65 | .. |
| 67. R. T. S. Gillett ... P.M.A.L. | 44.5 | .. |
| 68. W. L. Henery ... T.M.A.C. | 43.71 | .. |
| 69. C. A. Ewart ... Lancs. | 43.4 | .. |
| 70. H. G. Monk ... Lancs. | 41.3 | .. |
| 71. H. Ogden ... Bradford | 40.96 | .. |
| 72. N. H. Sawyer ... Lancs. | 39.81 | .. |
| 73. R. A. Brown ... Blackheath | 37.7 | .. |



Herr Kronfield gives a talk to competitors. Behind is German team manager. Left foreground: J. C. Smith enjoys a "breather."

Top: "Timekeeper"—A German entry making ready.
 Centre: German team getting trimmed during the morning.
 Bottom: "Gone but not forgotten." Taken during lunch.

Top: An unusual German entry winds up.
 Bottom: Just a "leetle" more incidence. Competitor surveys his machine.



Top: A happy reunion. Mr. B. K. Johnson and Frank Zaic meet after twelve months.
 Bottom (left to right) A happy group: Frank Zaic, Alvie Daigue, Denis Fairlie (THE AERO-MODELLER Staff artist) and H. Fish.

Frank Zic (U.S.A.), probably one of the most well-known aero-modellers in the world, shown here with his '37 Wakefield entry. He is determined to get the Trophy at some time or another. Best of luck, Frank!

Top: The U.S.A. enclosure. Boodle working on H. Struch's entry.
 Bottom: Alvie Daigue and machine. Note the dihedral angles on the wing.

THE SIR JOHN SHELLEY CUP AND BOWDEN TROPHY COMPETITIONS

HELD ON AUGUST 2nd, 1937, AT FAIREY'S AERODROME

(By Kind Permission of C. R. Fairey, Esq.)

THE SIR JOHN SHELLEY CUP.

THE weather for the two petrol 'plane contests dawned even better than the previous day, there being little wind and the day very hot. This was particularly appreciated, as it is no joke to "wash up" a gas job which has probably cost quite a few pounds to build!

Up till about 10 a.m. competitors were everywhere "test hopping" their jobs, while the less fortunate remained on *terra firma* coaxing their motors to start! The American, Bodle, was unfortunate in cracking his model up, and he and his confederates put in several hours of frantic repair work to make ready for the International in the afternoon. One machine came roaring to earth under full throttle, struck with a bang, and the wing flying off, the fuselage complete went running across the 'drome!



Capt. and Mrs. Bowden, E. F. H. Coah (hon. secretary, S.M.A.E.) and H. Fish, the winner of the Bowden Trophy.

An immense improvement in design was noticeable. In fact, the "crack-ups" could be counted on one hand, and in no case was a crash caused by structural failure. Such smashes as did occur were due to faulty trimming on the tight circles, which gas jobs are inclined to develop. We noticed that there was a great deal of duplication of design. Several "T O Coupes" were present, and seemed quite successful, though one provided some thrills. After developing a vertically banked turn at about 800 feet it came down, motor wide open, closer and closer to the ground. Then, at the last moment, when it had only about 15 feet to go, the motor "cut," and settling into an easy glide it made a perfect landing! Incidentally, we noticed that Mr. Fairey had generously had the grass cut very short, making good landings feasible, even with small

wheels. Mr. R. Sharvell's little job is an excellent example of the small-sized model. The motor, which he built himself, is a half-size Brown Junior. As soon as the Shelley Cup contest opened it became apparent that the standard of flight was going to be very high indeed. Mr. R. J. Trevithick's little Brown-powered model was putting up some fine flights, despite its 23 oz. per sq. ft. loading. (This model had a ducking in the lake in the gravel pits some weeks ago, with the result that most of the plywood had parted, and the nose of the job and engine mounting had to be rebuilt just before the contest). The Bournemouth contingent all had machines of similar design, with wide track undercars, which helped considerably to good landings. Two or three of Captain Bowden's "Kub" designs were flying very well, and it was with one of these, powered by a "Baby Cyclone," that Mr. Jeffries, of the Birmingham Club, won the trophy.

Competitors using lightly loaded machines had difficulty in judging the times, as there was so much lift in the air that models would stay up for quite a considerable time after the motor had cut out. At times, near the "control," so many motors were being run up that it was quite difficult to make one's self heard! As each machine was started up the owner would take it to the board. Meanwhile, Mr. J. C. Smith, at the microphone, would give a running commentary on the machine's performance in the air. The take-off board was only short, and was used to enable the models to overcome their inertia, so that when they came to the actual grass they were well moving, and only in a few cases were there failures to get off.

THE BOWDEN INTERNATIONAL TROPHY

This contest was won by Mr. Fish, of U.S.A. When one considers that there were no teams, as for the Wakefield Cup, each country entering as many models as it liked, this feat was quite remarkable, the odds being around 20—1 against him. We, personally, had hopes that Mr. Trevithick, who obtained second place in the Sir John Shelley Contest, would pull this second event off, as his machine was putting up very consistent flights, but his heavily loaded machine made a high speed landing in the long grass and nosed over. Mr. Bodle had by this time repaired his model, but apparently the bad smash it had sustained in the morning would not permit it to be easily trimmed. A machine built from the Scientific Model Aircraft Co.'s "Miss America" kit (designed by Frank Zaic) was performing very consistently, and looked very pretty in the air with red wings and a blue fuselage. The Frenchmen's machines were all of a similar design, flat-sided fuselage cabin jobs, with wings employing a flat equal chord portion in the centre, with tapered tips sharply inclined upwards. They all failed to get off, due to

mechanical difficulties ; they were all nicely built, and some employed a metal casting at the junction of the wire undercarriage legs.

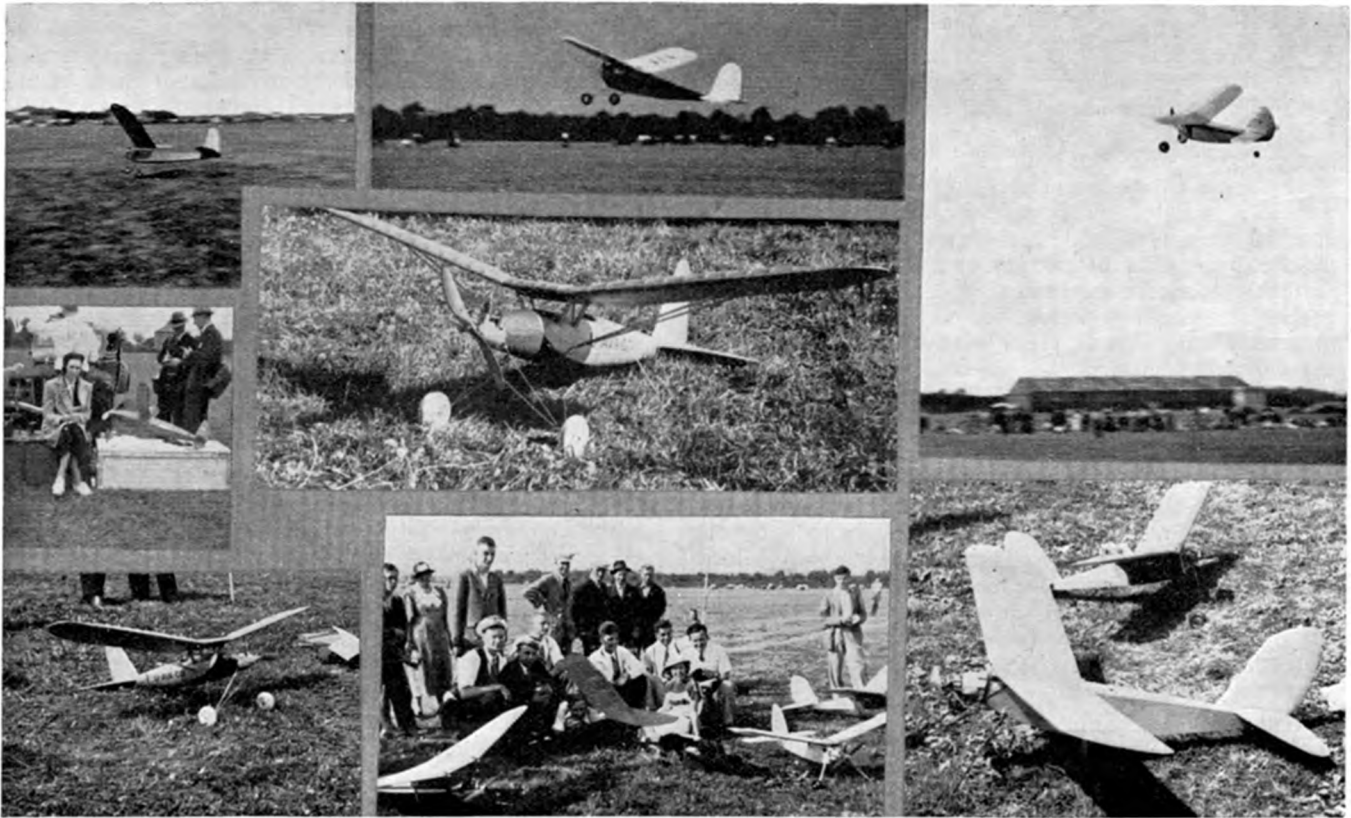
There were few radical departures from general design, though one was a very nice cabin pusher (Baby Cyclone). Also one " Cavalier," 10 in. span, finished all silver, with a fine monocoque fuselage. Mr. Wigdor had a very nice job, parasol monocoque fuselage, with the tail plane carried high on the rudder. In the competition competitors were allowed a time of between 45 to 90 seconds. By varying degrees the different machines were eliminated.

Mr. Fish (U.S.A.) had a very narrow escape with one of his flights, as his design was a typical American duration gas job, which floated for a long time after the power

the drome and on to the cabbage patch. Disqualified ! Fish's model took off perfectly, clocked the requisite time, but on landing the model ran along the ground, struck a tuft of grass and overturned. Loss of points ! It all depended on the next job now, and with bated breath we watched the model take off, fly round nice and smoothly, then the time switch " cut," and with a dead motor it started coming in for a landing. Just as it touched down an amazing thing happened: the undercarriage folded up underneath it ! Amidst wild applause Mr. Fish was nominated winner. This was a very popular win, as after the long trip they had made we could well imagine the American's feelings had they gone back empty-handed !

There is no doubt that the two-day meet this year has

PHOTOGRAPHS AT PETROL CONTESTS AT FAIREY'S, AUGUST 2nd



Top left: Mr. Fish's winning gas job.
Centre left: Mrs. Fish and the U.S.A. contingent.
Bottom: Mr. Sharvell's diminutive model.

Top: Off! Contestant for the Shelley contest.
1.3 cc. powered gas job.
U.S.A. entrants pose for THE AERO-MODELLER.

Top right: R. J. Trzvitich's 23-oz. per sq. ft. machine underway.
Bowmouth entries. Model in foreground with a " Comet " motor.

cut out. Having set his switch as for previous flights the model took off steadily and climbed higher and higher—the higher the model the longer was Mr. Fish's face ! It became apparent when the motor cut out that he was going to be very fortunate indeed if it came down in time. On and on it glided, hardly seeming to lose height—the timekeepers began to count the seconds aloud, " 86, 87, 88, 89 and a fifth ! " It just touched ground with $\frac{1}{4}$ sec. to spare ! So close were the results that two English machines and Mr. Fish had to re-run. The first job off turned in a wide sweeping circle, then, the motor cutting, commenced a long flat glide which took it right outside

been an immense success, and though next year the Wakefield contest will be in France, the Bowden Trophy Contest will be held in England, and we look forward to the next international meeting for this splendid trophy, so kindly presented by Captain C. E. Bowden.

The contests were all exceedingly well run, and the S.M.A.E. deserve every credit for organising the whole affair without any hitches. Mr. H. York put in spartan work meeting the foreign visitors, and getting them housed in London, while Messrs. Cosh and Smith put in similar hard work in correspondence and the handling of competitors and stewards on the actual day.

A BANQUET

given by

THE LORD WAKEFIELD OF HYTHE

and the

PRESIDENT AND COUNCIL

of the SOCIETY OF MODEL AERONAUTICAL ENGINEERS

in honour of the

COMPETING TEAMS for the WAKEFIELD INTERNATIONAL TROPHY

MONDAY, AUGUST 2nd, 1937

ON the evening of the second day of the August Meeting, a sumptuous banquet was given by Lord Wakefield of Hythe, and President and Council of the Society of Model Aeronautical Engineers, at the Park Lane Hotel, Piccadilly. For *some years*, if we read correctly, receptions of this nature for competitors have been given in the U.S.A., generally sponsored by some commercial enterprise. This, however, was the first time that anything on a large scale had been given over here, and we are more than pleased to owe our debt, not to a publicity or advertising campaign, but to a very gracious gentleman, Lord Wakefield of Hythe. His repeated generosity and goodwill, given in all sincerity and without any thought of personal advantage, has more than endeared him in the hearts of all who follow the pursuit of model aviation.

Invitations were extended to all competitors and stewards, all officials and affiliated club secretaries, a select number of guests, and the Press. A reception was afforded to all in the foyer adjoining the banqueting hall, by the President and his Lady. There, amidst much gilded splendour of architecture, one met all one's friends, heavily bronzed with the past few days' sun and resplendent in suiting. As the various guests were announced, so numerous were the foreign visitors that it sounded more like an international conference!

Following a stentorian voice announcing that "dinner is served," we entered the banqueting hall, which was tastefully arrayed with large ornamental mirrors running the full length of the walls, emitting from their scintillant depths soft gleams of light from the exquisitely cut glass chandeliers.

"Grace" having been said, we enjoyed with right good will a very tasteful dinner. (Running around an aerodrome the size of Fairey's for two days induces a very healthy appetite!) And for the benefit of those who were unable to be present we will spare them the envy of a detailed description of the courses. Sufficient to say that it was served as only a West End Hotel can serve!

Dr. Thurston commenced an excellent speech by reading a letter he had received from Lord Wakefield:—

"DEAR MR. PRESIDENT,

"I very much regret that I am prevented from being present at the banquet in honour of the competitors for the International Trophy which bears my name. It would

have been a great pleasure to join with you, as President of the Society of Model Aeronautical Engineers, in welcoming our guests from so many different parts of the world, and I know that you will, on my behalf, tell them how delighted we are to do so.

"It is not the least of the pleasures associated with the British victory in 1936 to be able now to offer some return for the splendid hospitality that has been shown to British teams competing for the Wakefield Trophy in previous years. We rejoice particularly in the presence of American contestants, for the abounding kindness of our American hosts last year will long be remembered.

"I write before the event, and thus can have no knowledge of the result of this year's competition. What is quite certain is that, whatever the result, it will be accepted in a spirit of true sportsmanship, and all concerned will join in warmest congratulations to the victors.

"As you know, I have been interested in model aeronautical engineering from its early days, and I rejoice that the movement has spread far and wide. It is a science as well as a sport. Its practical value is everywhere recognised, proof being afforded by the fact that many of the early enthusiasts in model construction have since become famous designers and builders of the model aeroplane. Some of the younger competitors—and I remember that the British team last year included some who were very young—may well prove to be leaders in this great industry ten or twenty years hence. I hope they will not have forgotten the friendships and kindnesses engendered by these competitions, where twelve or more nations meet in a rivalry which is pure enthusiasm and goodwill. In this respect the world-wide model aeronautical movement has a value and importance which we shall do well to prize and preserve.

"And now, Mr. President, may I thank you and Mrs. Thurston for so kindly and graciously acting as hosts to our many guests, and may I also convey through you my warmest wishes for a most enjoyable evening.

"Yours very sincerely,

"WAKEFIELD OF HYTHE."

Proposing the health of Lord Wakefield, Dr. Thurston said:—

"I think the supreme glory of this country is that its great men are also its good men. As Milton puts it:

'None but such as our good men can give good things.'

"Lord Wakefield is an outstanding example of this great truth. He has shown that it is possible for a young man without special influence to rise by his own ability and worth to the highest rank of wealth and fortune, and that he can use his wealth in the public interests wisely and economically.

"It is difficult for me in a few words to give more than the barest account of his good works. Suffice it to say that he has been actively associated with almost every beneficent enterprise in London and the country during the past generation, has been a most successful Lord Mayor of London, a great ambassador of friendship and goodwill in many lands, chairman or president of several hospitals, donor of many scholarships, national treasures, public institutions, etc. He is an Honorary Freeman of the City of London, and the only member of the Corporation of the City of London who has received that great honour. If America, or France, or Germany, or any other country represented here to-night wants Lord Wakefield they can't have him—we can't spare him, he's ours—but he will do any of them a good turn when the opportunity occurs.

"Lord Wakefield's establishment of the Wakefield Cup has undoubtedly been one of the prime factors in the growth of the S.M.A.E. The Society has grown so rapidly that its resources have been fully taxed to cope with the demand for leadership. We are, therefore, deeply grateful to Lord Wakefield for his further generosity in 1936 and again this year. Probably no Englishman has done so much in so many different ways to forward the cause of Aviation. He has twice won the King's Cup Air Race, and hopes to win it again this year, but he has never won the Wakefield Cup—I think it's about time he had a try. Lord Wakefield's Secretary, I am very glad to say, is with us to-night, and will doubtless let him know your opinion in the matter.

"Lord Wakefield has been instrumental in the development of the internal combustion engine by racing cars, speed boats, aeroplanes, etc. Sir Malcolm Campbell, the present holder of the World's Land Speed Record has, on several occasions, paid tribute to Lord Wakefield's assistance. May I remind you of just two examples indicating his far-seeing benefactions to mankind. He purchased and endowed Talbot House, Popering, the birthplace of the Toc H Movement, and also "Lone Tree Crater," on the British Western Front, now preserved as a Pool of Silence and Remembrance for ever.

"Only a few days ago Lord Wakefield took part in a television programme in which he spoke on the subject of his scheme for Tower Hill improvement. We need no television this evening to show us Lord Wakefield—he is with us in spirit. I give you the toast—our Host and Patron, Lord Wakefield. Long may he be spared to inspire 'A rivalry between nations which is pure enthusiasm and goodwill,' and long may he live in happiness and prosperity to enjoy our affection and esteem."

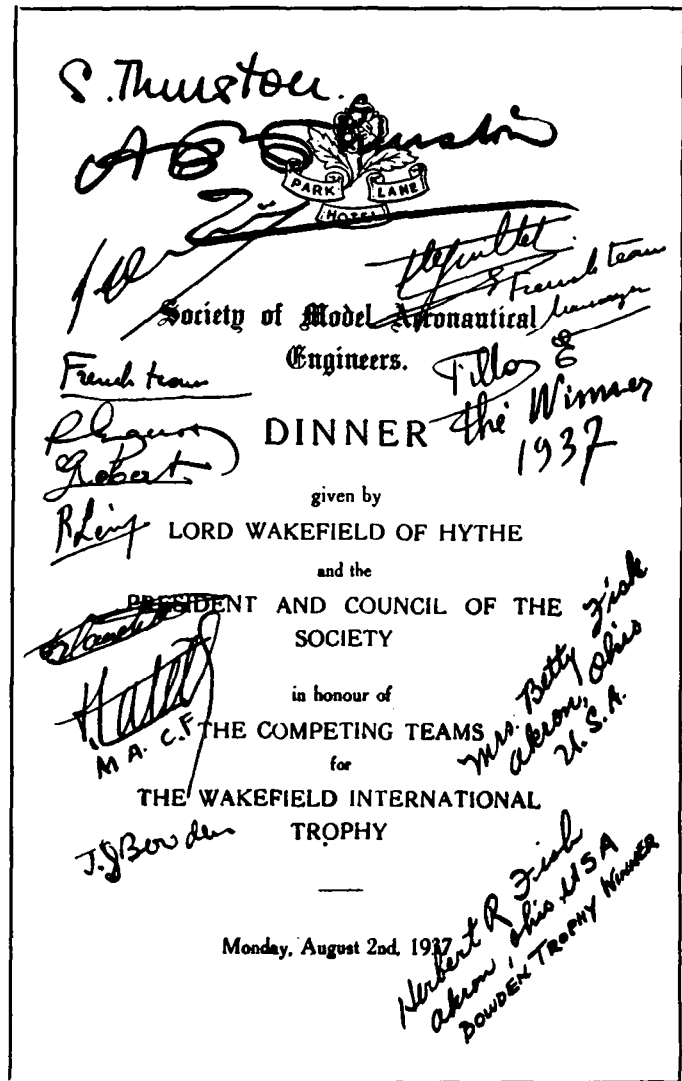
* * *

Amidst resounding plaudits the much-contested Wakefield Trophy was presented by Mrs. Thurston to beaming M. Fillon, of France. Despite the language handicap the victorious Frenchman had made many friends, and in a brief speech he thanked the S.M.A.E and those present

for the warm welcome the team had received, and expressed a wish that we could all be present for the tenth international contest for the Wakefield Trophy in Paris next year, where we should be assured of a right royal welcome.

Captain Bowden being unable to be present for the presentation of his trophy, his place was very ably filled by his charming wife, who, in a brief speech, expressed Captain Bowden's complete satisfaction with everything.

A MEMENTO OF THE BANQUET



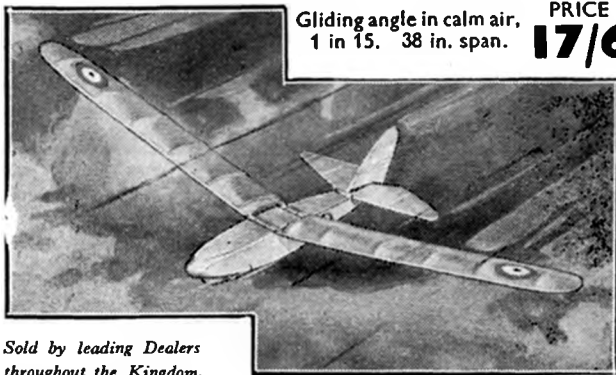
The Editor's menu card—now proudly displayed on his desk.

Followed speeches by representatives from all the other competing countries, in which they praised the organisation of the S.M.A.E., and thanked their fellow competitors for making the meeting so enjoyable.

So ended a most enjoyable evening, one long to be remembered by all those present, as an example to the world of how international rivalry could, and should, exist for the furtherance of good fellowship among the nations.



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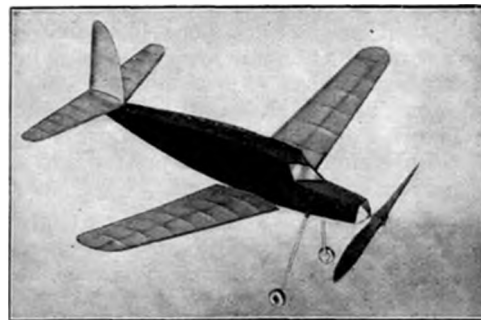
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THE SOCIETY OF MODEL AERONAUTICAL ENGINEERS

Notes on a Council Meeting of the S.M.A.E., held at the Royal Aeronautical Society, Albemarle Street, W.1, on July 14th, 1937.

The following Council members were present:—

| | |
|---|-------------------------------------|
| Dr. A. P. Thurston, President. | |
| Mr. A. F. Houlberg, Chairman. | |
| Mr. E. F. H. Cosh, Hon. Secretary. | |
| Mr. L. J. Hawkins, Hon. Treasurer. | |
| Mr. J. C. Smith, Competition Secretary. | |
| Mr. H. York, Press Secretary. | |
| Mr. T. Wickens, Mid Kent. | Mr. C. H. Hunter, Woking. |
| Mr. P. C. Newport, North Kent. | Mr. C. A. Rippon, Northern Heights. |
| Mr. R. T. S. Gillett, P.M.A.L. | Mr. C. H. Orchard, T.M.A.C. |
| Mr. C. T. Buffery, Midland. | Mr. M. R. Knight, Bradford. |
| Mr. E. A. Ross, Bristol and West. | Mr. R. O. G. Booth, Ealing. |
| Mr. J. Worden, L.M.A.S. | Mr. W. Ruahen, Leytonstone. |

After the minutes of the previous Council meeting had been read and confirmed, the delegates of the F.A.I. Conference made their report. The Council were informed that the delegates had been successful in getting passed several of the British recommendations for timing world records. Briefly, the regulations are as follow:—

World's records will be acknowledged for the following class of models only:—

- Power-driven models.
- Rubber-driven models of the fuselage type.
- Gliders.
- Seaplanes.

In the case of rubber-driven models and gliders, the wing loading must be at least 15 grammes per square decimetre. All models must conform with the S.M.A.E. fuselage formula.

The tail area of models is limited to 33 per cent of the main plane area. Any area above 33 per cent will be accounted as lifting surfaces.

Records will be introduced for duration, distance, altitude, and speed.

Seaplanes must make a flotation test of five minutes.

There are three methods allowed for launching gliders. 1, hand-launched; 2, catapult-launched; 3, cable-launched. In the case of the catapult the line must not exceed three metres. In the case of the cable-launch the line must not exceed two hundred metres, with one end stationary. In the case of the running launch by cable, the line must not exceed one hundred metres, and the operator must not run more than seventy-five metres.

All times are taken from the moment the model is released until the machine lands, touches some object, or goes out of sight of the timekeepers, who must remain stationary, but optical aids may be used.

In the case of the glider, the fall of the models must not be more than nine metres per minute of flight, and the distance they travel must be measured on an ordnance map.

All claimants for records must hold an F.A.I. licence.

Machines must not be commercially made.

The F.A.I. passed the following rule for power-driven models.

No engine may exceed 10 cc. and the maximum wing loading of the models to be fifty grammes per square centimetre.

The S.M.A.E. learnt with much pleasure that our President, Dr. Thurston, had been made Chairman of the Model Section of the F.A.I. for the ensuing year.

The Council next dealt with applications for affiliation, and the Silver Wings Club, with eight members, was affiliated.

The *Daily Dispatch* Aero Club, with 12,000 members, was accepted as an affiliated club, subject to the question of sponsored clubs being brought forward at the annual general meeting. There are at present two sponsored clubs, who pay the maximum affiliation fee of three guineas.

The Windsor M.A.C., Manchester, with fourteen members, was reaffiliated.

The Newcastle, Staffs., and District M.A.C., with fifteen members, applied for reaffiliation. This was put back pending further information.

The Council then revised the timekeepers for the Birmingham M.A.C.

The name of one of the timekeepers for the Southport and District M.A.C. was changed.

An application for a seaplane record by Mr. R. Smith, of North Kent, with a duration of 2 min. 28.75 sec. was passed.

Mr. L. V. Mawby, of the Ealing Club, claimed a catapult-launched glider record of 3 min. 1 sec. This record was passed.

Mr. C. W. Needham, of Bristol, claimed a biplane record with a duration of 1 min. 56.1 sec. This was also granted.

The S.M.A.E. Badge Committee next reported, and their recommendations were accepted by the Council. The Badge Committee were requested to go into the actual costings, while Council delegates were again asked to enquire of their members how many required these badges.

The Council next proceeded to discuss the arrangements for the Wakefield Trials and the International Competitions.

Mr. Orchard, a member of the *Model Engineer* Exhibition Sub-Committee, placed before the Council the suggested design for the S.M.A.E. stand, on which he was complimented.

Mr. Wickens reported to the Council that a model sent up on Dartford Heath had landed quite safely in the Isle of Wight.

Mr. Rippon reported that the Northern Heights had collected 10s. on their gala day in aid of the Wakefield Entertainment Fund.

The Council next discussed the question of flying in Gunnersbury Park, and gave Mr. Cosh their opinion of the matter.

Mr. White, T.M.A.C., offered the S.M.A.E. a cup for flying boats, and the Competition Committee were asked to deal with this offer.

The meeting closed at 11 p.m. with a vote of thanks to the Chairman.

H. YORK,
Press Secretary.

At the request of the S.M.A.E. we are pleased to insert the following notice TO ALL CLAIMANTS FOR RECORDS:

"The time-keepers shall each have a stop-watch which shall be started when the machine is released and stopped when it touches some solid object or passes out of sight. The mean value of the two readings to be taken as the correct figure.

"Any claim for a record must be submitted to the S.M.A.E. within one month for ratification, together with the names of the timekeepers, the date of the attempt, and general particulars of the machine."

LETTER TO THE EDITOR.

DEAR SIR,

May I, through your columns, express on behalf of the S.M.A.E. Council, our thanks to all who helped to make the Wakefield Trials, the Wakefield Contest proper, and the Sir John Shelley and Capt. Bowden Cup events so successful? To Mr. C. R. Fairey, to whom we are indebted for the use of the ground, to Dr. and Mrs. Thurston, who spent the three days on the ground with us; the Hayes and District Club, who were responsible for erecting the surroundings, etc.; to the timekeepers, headed by Mr. A. F. Houlberg, who loaned watches as well as their services; and last, but not least, to the competitors themselves, who obeyed necessary instructions, and made it possible to get through the long programmes so rapidly. In addition, my personal thanks to my brother councillors for their unselfish team work.

Yours sincerely,
J. C. SMITH,
Competition Secretary, S.M.A.E.



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Biplanes are an unusual craft, but growing in popularity. Kanga Aeromodels have a kit on the market. It looks good and flies even better. Why not buy one? The kit is only 7s. and complete in everything, or, if you want the design jussasee watissalabout—well, the blue print is only 2s. 6d. The Dragonfly is the name and it's thirty inches span. Also stocked are kits and accessories for "gas" models, the "Kub" 5 ft. span being one of the smallest stock models in the country, and suitable for both expert and beginner. Remember you kanga far wrong if you try Kanga Aeromodels, 1 Colonnade Passage, New Street, Birmingham. So why not write for their excellent catalogue?

Who ever heard of one machine being capable of performing 15 totally different operations? Well, we have, and we've seen one, too! No, just 1, not 2! One is all you want to enable you to carry out practically every known engineering operation with efficiency and precision. The *Unit-X* is a British-made machine, offered by Triangle Products Ltd., of Blake Street, Stretford Road, Hulme, Manchester 15, and appears to us to be the ideal machine for the club workshop. It costs only a few pounds, yet turning, polishing, sawing, drilling, moulding, and many other operations can be carried out on it.

A "whip round" the club, at a "bob a time," would enable one of these machines to be purchased. And think of all holes and cuts which would *not* be made on mother's best table if we all had the use of one of these machines!

QUEER BIRDS—No. 3. The "RIP" or "Gala-Warbler" (*Avolrdupolis Expandus*)



One of the real "old birds," the Rip, has its habitat in the Northern Heights of London. Of very unorthodox habits, it turns out many weird and wonderful broods known as "pushers, push-pulls, etc."

Can be found at any big function in the Southern hemisphere, being distinguished by its noticeably increasing girth, a one-time pullover now turned chest-protector, and its crest or "beret"—this latter being rivalled in antiquity only by the crest of the "Rushy," an Arctic visitor.

Has been known on occasion to use its bath for other purposes than ablutions during the close or "indoor" season, much to the disgust of the "Better Three-quarter Rip." Is said to get much delight from the pretty colours floating on top of the water, but has no aspirations to be a "micro film star!"

A member of that exclusive class, the pioneers, the "Rip" is noted for its great activity, especially at its annual bun-fight, the Gala Day. One of the best types, it is a great help to the lesser birds which it gathers under its wings paternally.

"There's many a slip twixt cup and lip,
But who can say that 'bout dear old Rip?"

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THE SPRUG.—Continued from opposite page.

Wing.

The wing is balsa sheet— $\frac{1}{8}$ in., polished down with 00 sandpaper to about $\frac{1}{50}$ in. Use a 3 in. wide sheet, but if not obtainable join 2 in. and 1 in. with $\frac{3}{8}$ in. strip of silk glued on to the joint whilst the strips are pinned down against each other. Leave the strip inside when covering.

Be careful to cut the ribs to an accurately made tin template as directed upon the inset in the diagram. Be careful to get the sheet balsa glued tight up against the concave under-surface of the ribs—soft balsa ribs are no use. No spars are used, but the L.E. and T.E. are laced with suitable strips of $\frac{1}{8}$ in. and $\frac{1}{4}$ in. balsa as directed. The L.E. should be slightly blunted and the T.E. sandpapered to a knife-edge. The incidence block is scooped out and ground with a piece of 0 sandpaper wrapped around the top of the fuselage. It may be

hollowed out. Before glueing in place fix it to the fuselage with rubber rings and balance it. The top of the fuselage, the datum line, must hang dead level when the wing is suspended 1.05 in. from the leading edge. The wing supports may then be made to triangulate with the formers 2 and 3, the birch dihedral dowels in the wing roots, and the incidence block. Solid soft balsa fairings are fitted to the ends of the 23 in. wings.

Motor.

Four loops of $\frac{1}{4}$ in. by $\frac{1}{8}$ in. elastic on each hook are required for R.O.G. Flight. After lubrication, this diminutive model can be given 600 turns and up to 850 when run in, the duration being in the neighbourhood of 80 seconds. On a calm day it will fly, or cruise, rather, at 20—30 feet for 200—300 yards. Try it and see. It can be made from scraps. Dope silver for preference—it is lighter.

THE SPEUG. In the centre pages, we present a fine scale drawing of this machine, and compliment our contributor on his skill and forethought in arranging his drawing to exactly fit our pages. Future contributors please note!

THE SPEUG

A DIMINUTIVE HEAVY-WEIGHT

By D. J. Miller

THIS interesting little heavy-weight is capable of straight-line flights of 60—90 seconds, and has actually flown a straight 100 yards in a thick drizzle, weighing one ounce more when picked up than when released. It would appear that the principles embodied in its design are worthy of note to all those who are interested in scale model duration.

Further, it is built to conform to Wakefield formula and if scaled up to the ratio of 5:3 it will fulfil the new conditions. The construction is by no means difficult, although it is not exactly a beginner's job in respect of two things—the balsa veneer covering and the gearbox fitting, which call for either a little skill or a modicum of patience.

Gearbox.

Two Frog gearboxes (7½d. each at any good toyshop) are required. The bottom half of the box is cut off one and the top half is cut or filed off the other. The lay-shaft or propeller shaft of one is discarded and the bottom half soldered on to the other by sweating on a strip of tin across the joints in the gear casings. If the gears be put in mesh and the fronts of the casings be kept flat, the job will be both solid and satisfactory. Two that I have seen indestructible. Look at the drawing and look at the gearboxes before starting to cut.

Fuselage.

Details of the formers are given. Two of each are needed, and one of balsa cut from the birch-ply, using the latter as a template in each case. Two ¾ in. birch-ply sandwich the balsa, making an extraordinary light and strong former. No. 1 is ¼ in. balsa on account of its taking the landing load, for which purpose a piece of ⅛ in. aluminium tubing is inserted where shown. Observe that noseblock and formers 1—5 are all in line on top. This is an important practical datum line. Keep them straight when joining in the usual manner with ⅛ in. balsa stringers. The nose block, cut out to fit the gearbox and faced with ½ in. birch-ply should be fitted after the formers have set. The tail block should be made complete with tail hooks, notched, fitted, and glued in correctly. Incorrect fitting will result in the gearbox being torn out of its setting and/or two twisted gear hooks. The model is fairly high-powered. Do not forget the block "C" which gives the elevator an accurate setting.

Before covering the body with balsa, sandpaper the sheets down carefully and evenly to about 1/50th inch. It will then take the radius quite evenly without splitting or soaking, between formers 1 and 4. Glue a strip to the top stringer and pin it at the formers, then glue the other formers and stringers, bringing the veneer down as you go, one side and one stringer at a time, between the stringers mentioned. The other parts may be covered in strips or sections according to the builder's disposition. It is possible to cover the whole fuselage

in one piece cut in suitable places *along* the stringers. Use Durofix—it does not dry too quickly—and use plenty. Do not hurry the job of covering—get on with something else whilst one piece which you have successfully stuck down in place is drying hard. When finished, polish over with 00 sandpaper and dope with banana oil.

Tailplane and Rudder.

These may or may not be made and covered with balsa veneer. The veneer I have used has prolonged the life of the plane and made dirty weather flights possible. They are streamlined and symmetrical non-lifting and no incidence is given to the tail, which lies along the thrust line. The keel was fitted as this to my last two models and cured a tendency to the flat spin, due perhaps to the parasol, semi-streamlined body giving low side area and the short radius of gyration or even perhaps something entirely different. The trimming tab on the keel gives a very fine adjustment when necessary: the two in conjunction, though small and near to the C.G., control flight movement very effectively indeed and must not be moved to any great extent.

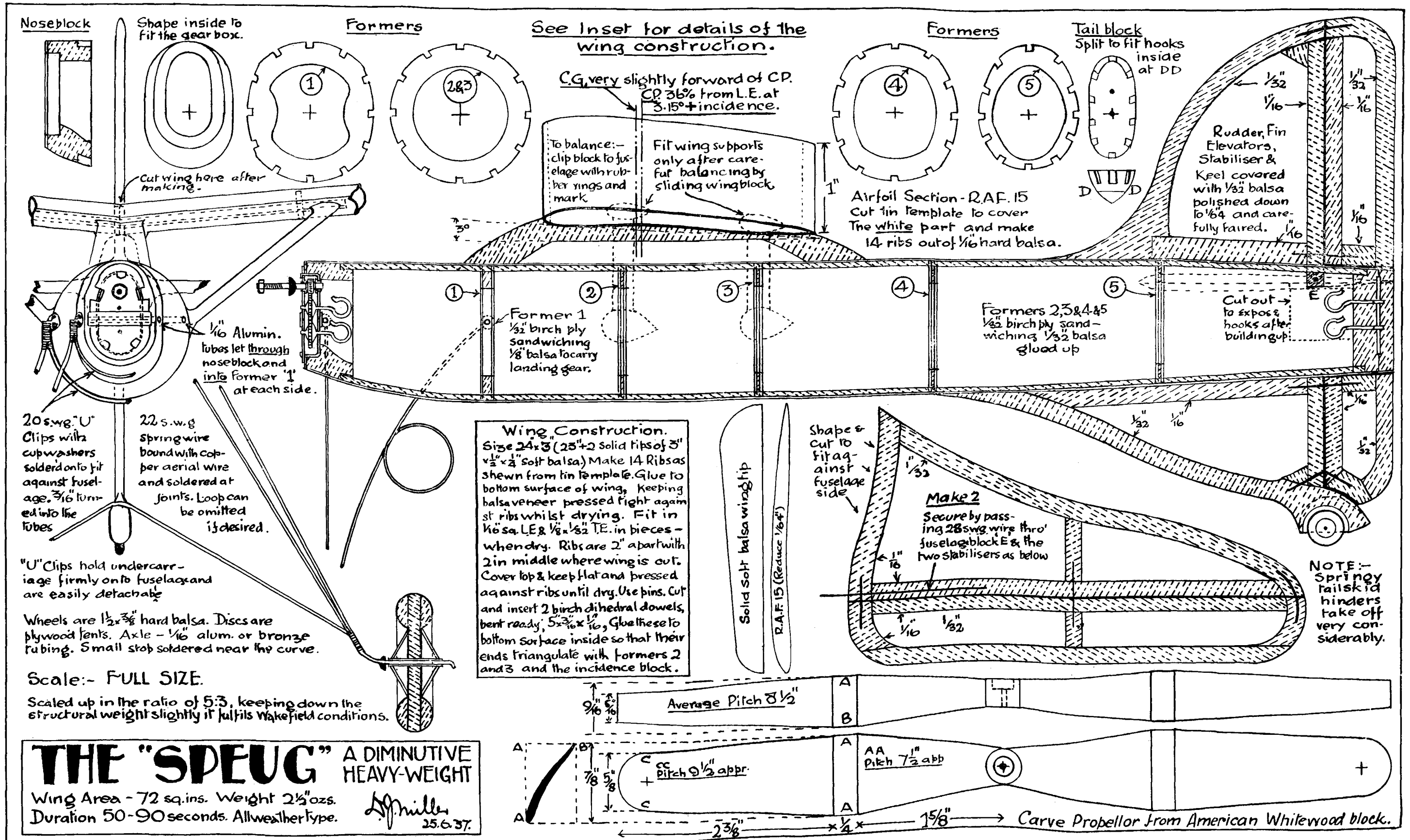
Undercarriage.

An examination of the drawing will, I think, be sufficient. The "V" fore and rear legs at each side are held together by a "U" clip embracing the fuselage. Each end of each clip is turned in a quarter of an inch or so and a cup washer soldered on so as to leave about ⅛ in. to clip in to the ⅛ in. aluminium tubing. The clips on the front legs can be allowed to project a little further into the aluminium tube that goes right through the nose block immediately behind the gearbox and touching it. A loop may be wound in the rear leg. If no loop is put in, the plane will take no harm, for upon landing too abruptly, at too great an angle, the spring in the wire will cause the model to do a complete "handspring" somersault and land again, generally upon its wheels, without damage—an amusing manoeuvre, more especially when after somersaulting it takes off a second time for another trip. Thin copper aerial wire is used for binding the wire joints.

Propeller.

The propeller is a fine pitch 8½ in. The drawing is copied from the one used in making my last propeller. Use American whitewood. It is beautiful stuff to work and does not break in a hurry. In spite of a very slender boss, the one I made has already done hundreds of flights, and not all successful ones by a long chalk. Just carve the block according to the diagram and mark the corners that are to be the leading and trailing edges of each blade with a pencil, and see that the pencil line is not touched whilst carving. Finish with No. 1 and 0 sandpaper.

(Continued on previous page).



THE "SPEUG" A DIMINUTIVE HEAVY-WEIGHT
 Wing Area - 72 sq.ins. Weight 2 1/2 ozs.
 Duration 50-90 seconds. Allweather type.
J. Miller
 25.6.37.

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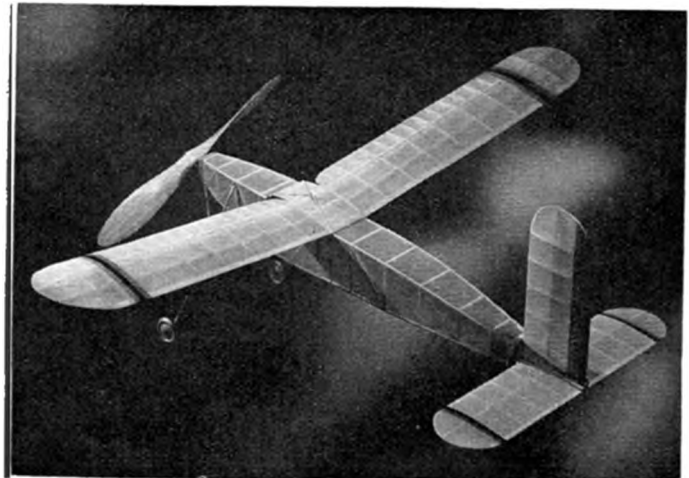


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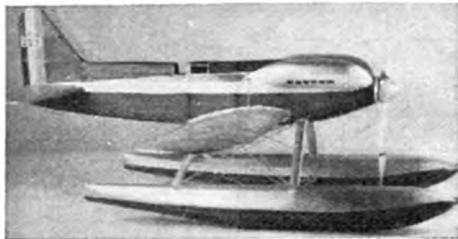
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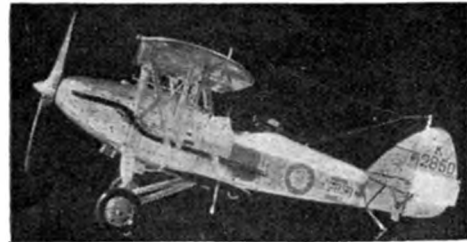


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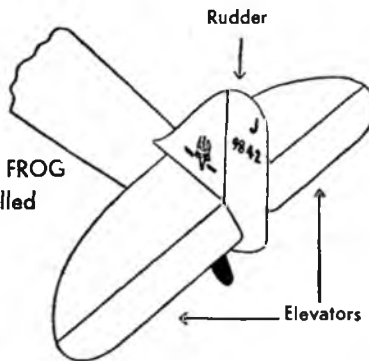
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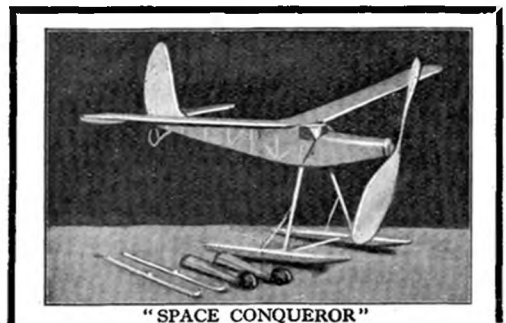
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OUR COMPETITION PAGE

RULES FOR ALL COMPETITIONS

1. The competition is open to all Aero-Modellists who are readers of this journal and there is no entrance fee.
2. Letters must be written in ink and on one side of the paper only, and must not exceed 400 words in length.
3. Sketches or photographs, if necessary, may be supplied, but neither they nor letters can be returned.
4. Cash prizes to the total value of £3 will be awarded each month, at the discretion of the Editor, whose decision on all matters arising from these competitions must be accepted as final.
5. To make the competition "monthly," all entries must be received by the 7th of the month following that in which

- the competition is published; we shall then be able to publish the results, together with the particulars of the next competition, in the following issue.
6. Entrants **MUST** state on the back of their letter—
 - (a) Their name and address.
 - (b) The name of the club to which they belong.
 - (c) Whether they are under 16 years of age.
 7. Each entrant **MUST** attach to his letter a competition coupon from the back page of the current issue of **THE AERO-MODELLER**.
 8. Entries sent in without this coupon or the information called for in Rule 7, or received after the 7th of the month, will be disqualified.

COMPETITION No. 2

This competition was for "Gadgets," and produced a considerable number of very interesting and useful articles for aero-modellists. On pages 833, 834, and 835 will be found fully illustrated descriptions of all the prize-winning "gadgets."

All cheques to prizewinners have been posted.

COMPETITION No. 3

This competition was for photographs of model aircraft in flight, and has produced a large number of entries. The results in the "over 16" section are as follow:—

1st Prize, £1, J. R. BLUNT,
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Two Second Prizes, each of 10s.

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28 Swallowcliffe Gardens, Yeovil, Somerset.

DR. H. CHARLES,

"Cremona," Sydney Parade Avenue, Merrion, Dublin,
I.F.S.

These three photographs are really excellent, and we congratulate the three prizewinners on their skill.

As extra prizes for this competition, we offered three copies of Mr. D. A. Russell's book, "The Design and Construction of Flying Model Aircraft," but so difficult was it to judge from so many entries that we have increased the number of prizes to 6!

The prizewinners are:—

K. W. HEZEL,

7 Clarence Road, Clapham Park, London, S.W.6.

D. W. COOPER,

"Glendoe," 17 Ordish Avenue, Chaddesden, Derby.

J. PEARCE,

26 Elms Road, Heaton Moor, Stockport.

D. J. MILLAR,

The Lincolnshire Regiment, New Barracks, Lincoln.

R. W. STUBBS,

"Victory House," 283 Wood Street, Walthamstow,
London, E.17.

F. DEWELL,

86 Harmer Street, Gravesend.

NOTICE!—Will all the above prizewinners kindly let us have, as quickly as possible, short descriptions of the models photographed, so that they can be published with the photographs in our next issue? Thank you!

"UNDER 16" SECTION

We have decided to extend the closing date of this competition until **SEPTEMBER 7th**. Whilst we received a considerable number of entries from readers under 16 years of age, a great number of them are not suitable for reproduction, because the photographs of the model are too small—in some cases only $\frac{1}{2}$ in. in size!

To be suitable for reproduction and to enable you to win a prize the photograph of your model must be at least 1 in. in size. And it must be in focus, too!

Now don't forget—all readers under 16 years of age have another chance to win the splendid prizes we are offering.

So get your photographs taken, and post them to the offices of **THE AERO-MODELLER**, "Allen House," Newarke Street, Leicester, so as to arrive not later than September 7th.

We are increasing the prize list for this competition to—
A First prize of £1, and
Three Prizes of 10s. each; and
Three 2s. 6d. kits presented by Messrs. Aer-o-Kits (Sheffield).

NOTICE TO ALL WINNERS OF KITS.

You have the choice of any of the kits offered at 2s. 6d. by Messrs. Aer-o-Kits (Sheffield). So you must write to this firm for their catalogue and make your choice. We do not send these kits from the offices of "The Aero-Modeller."

COMPETITION No. 4

This competition is for readers over 16 years of age *only*, and we hope it will encourage our more technically-minded readers to air their views.

The subject is "Airfoils," and we invite letters, not exceeding 400 words in length, dealing with the subject from any angle—reasons for a preference for a particular airfoil, or for a particular shape of airfoil, or perhaps a general description of the *principle* of how an airfoil generates lift. Remember, the prizes will go to the entrants whose letters are judged as rendering the greatest assistance to fellow readers.

A first prize of £1, and two second prizes of 10s. each are offered, and also three copies of Captain Bowden's book, "Petrol-Engined Model Aeroplanes."

CUT THE COUPON FROM THE BACK PAGE AND ENTER NOW!

NO ENTRANCE FEE REQUIRED

DON'T FORGET TO STATE WHETHER YOU ARE UNDER, OR OVER, 16 YEARS OF AGE

OUR COMPETITION PAGES

RESULTS OF COMPETITION No. 2

All Sketches drawn by our Artist, Denis Fairlie

1st Prize, £1.

GADGET No. 1. A PROPELLER WINDER WITH COUNTER.

S. B. STUBBS,

86 Chain Lane, Littleover, Derby.

This is a propeller winding gear which also counts the number of turns which are put on the motor.

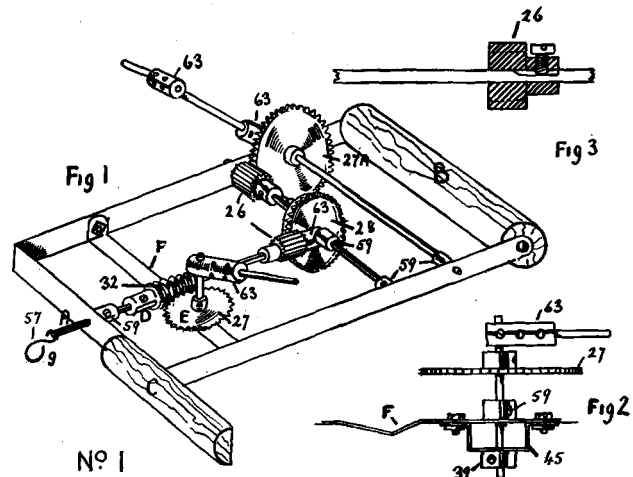
The winder is built almost entirely of Meccano parts; the numbers in the sketch refer to the number of the part given in the Meccano catalogue.

Figure 1 shows the complete winder, which needs little explanation. The end of the shaft A is drilled $\frac{1}{8}$ in. to take the hook G, which engages either the propeller shaft or the tail hook, thus permitting stretching while winding. The winder is held by the handles B and C, exactly like a breast drill. The worm wheel D is placed on the shaft A to engage the 50-toothed gear E, which revolves once for every fifty turns put on the motor. The pointer is placed above this gear wheel, as shown.

Figure 2 shows the counter in more detail. Note the kink in the strip F, which enables the gears D and E to engage correctly.

All the joints which take any strain *must* be treated as in Figure 3. The axle is filed flat, thus giving the gears a good grip.

The strips which form the frame *must* be braced strongly at the joints, otherwise the elastic motor will twist the frame badly. This bracing is not shown in the sketch in order to avoid confusion.

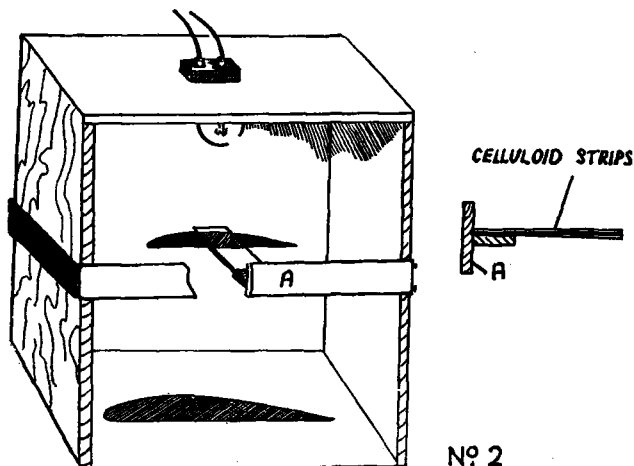


Four Second Prizes, each of 10s.

GADGET No. 2. A RIB ENLARGER.

G. DUNMORE,

22 Kingsway Road, Leicester.



This rib enlarger saves considerable time when drawing out tapered wings. It is composed of a box approximately 11 in. x 7 in. x 4 in.; the front panel and the bottom panel are dispensed with. At the top a flash lamp bulb is fitted. A piece of wood 1 in. x $\frac{1}{2}$ in. is then cut so that it fits across the width of the box; to this is affixed a piece of ply 1 in. wide, thus forming the "T" spar, as illustrated, A. Two small strips of celluloid 3 in. x $\frac{1}{2}$ in. are glued on top of one another at one end only, and then cemented to the centre of the "T" spar. The ply face of the spar should overlap the edges of the box by $\frac{1}{4}$ in., and two pins are driven in. A large elastic band is now placed over the pins and round the box, just tight enough to permit the spar to be moved up and down. Now take the rib that is to be enlarged and slip it between the celluloid strips. Then mark the desired chord on drawing paper at the bottom of the box. The lamp is now switched on. It will then cast a shadow of the rib on the paper, and all that is necessary is to focus the shadow by moving the "T" spar up and down.

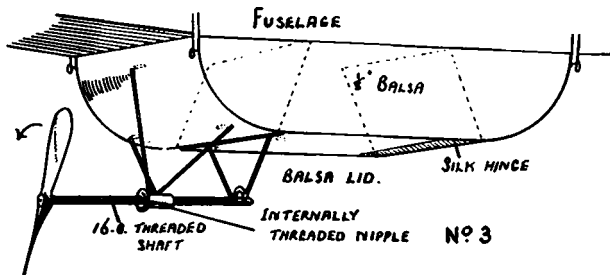
OUR COMPETITION PAGES

GADGET No. 3.

A PARACHUTE RELEASE.

F. FOSTER,

"Tryfan," Northend, Ditchling, Sussex.



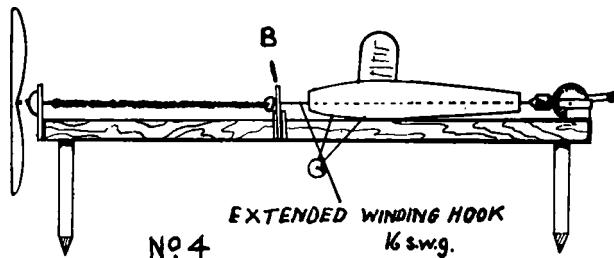
This release takes the form of a box strapped to the bottom of the fuselage. The door is hinged at the back end on a piece of silk. While flying the door is held closed by an arm of thin tinplate affixed to the front end. This arm rests on a 16 s.w.g. cycle spoke which has been threaded along a length of about three inches (a cycle dealer will do this); the thread stops just before the end, however. This is to prevent the shaft, when it has released the 'chute, from going right through the nipple. The threaded nipple is mounted on a tripod of 20 s.w.g. wire. Before each flight the screw must be returned after repacking the "brolly." For a 15 in. 'chute the centre part of the box should be about $2\frac{1}{2}$ in. \times $2\frac{1}{2}$ in. \times $\frac{1}{2}$ in., with the streamlined ends shut off by $\frac{1}{4}$ in. balsa. Do not make it too thin or the catch will press on the spindle and stop it working. The advantage of this release is that it operates at the top of the climb (after about 6-8 secs.).

GADGET No. 4.

A RUBBER WINDER.

G. BRUCE,

20 Raeburn Avenue, Dartford, Kent.



In competition flying the need for full turns on the rubber brings the danger of breaking rubber damaging the fuselage ever nearer. This danger can be overcome in more ways than one, but the following method has several advantages. It needs a tail plug or removable tail unit type of fuselage and the following gadget. The main essential is the extended winding spindle, which reaches right through the fuselage and so allows the rubber to be fully wound, and then drawn back into the fuselage. Winding, which is done from the rear, will be found to give a much steadier propeller run, as the troublesome knots of the last few turns are at the tail hook, and run

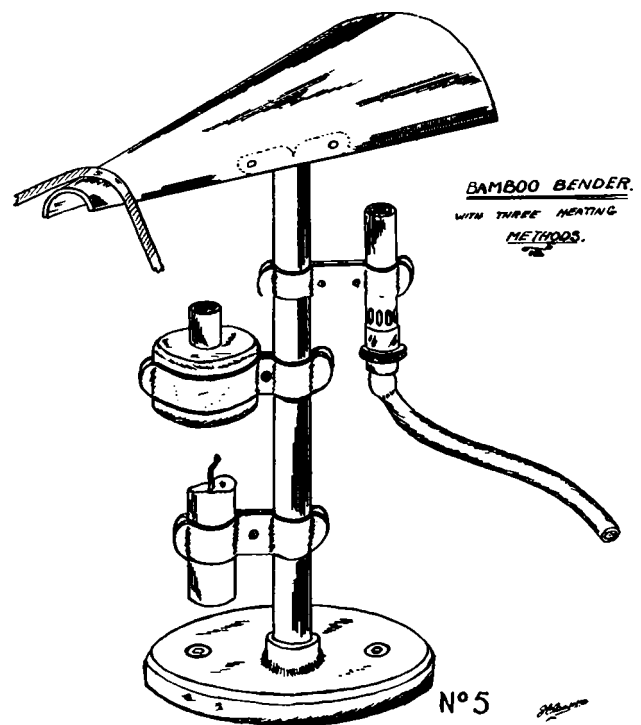
off last instead of setting up a skipping rope action at the front. An improvement would be to have a ply shield (removable) just in front of the nosepiece in case of rubber breakage.

GADGET No. 5.

A HEATER FOR BENDING CANE.

S. E. CAPPS,

48a Crown Road, Twickenham, London.



The action of heating cane by this method is very local, and the intensity of the heat can be controlled by up and down movements on the stand. Very small or large curves can be accomplished without trouble, and the speed with which these can be done is astounding, to say the least. Also by this method it is almost impossible to burn the hands. Practical tests have proved that this method is the best solution to cane bending. The construction of the heater is as follows:—The heater plate is made from $\frac{1}{4}$ in. copper sheet—the ductility of which makes it suitable for bending—bent to the shape shown in the sketch; from $\frac{1}{4}$ in. radius to $2\frac{1}{2}$ in. radius, by about 6 inches long. The upright is $\frac{1}{2}$ in. dia. brass tube, which is split and spread out at one end and riveted to the copper shield by small rivets, as shown by the dotted lines. The other end is screwed into a $\frac{1}{2}$ in. gas flange, which makes an excellent base. There are three types of burner one can use, firstly, methylated spirit, the container being taken from a model steam engine; secondly, the gas Bunsen burner and rubber tube, which are purchased; and lastly, the ordinary domestic candle. All these are held to the stand by suitable spring clips which allow freedom of movement and instant removal. The cost of the heater should not exceed 3s. 6d. complete.

OUR COMPETITION PAGES

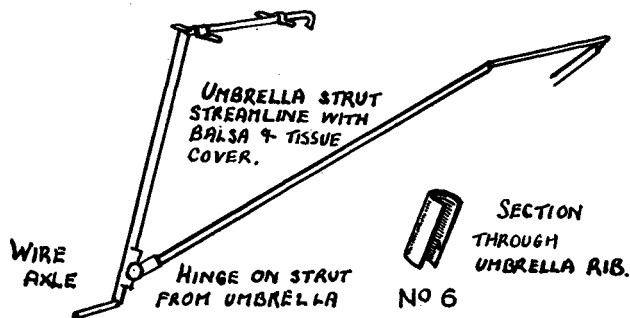
Three Consolation Prizes, each of 2s. 6d. kit, presented by Messrs. Aer-o-Kits, Sheffield.

GADGET No. 6.

A NOVEL UNDERCARRIAGE.

D. D. BEASLEY,

221 St. Ann's Well Road, Nottingham.



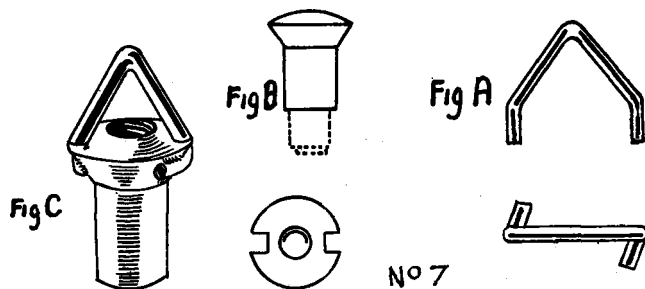
This type of undercart is very robust, and was last tested on a five-foot model driven by a.c. c.o. gas. In most houses an old umbrella is to be found. If this is stripped the struts will be found to be hinged about halfway. On the particular undercart which I built I used two of these struts, one on each side, with the hinge at the bottom and fastened to the axle wire. The struts are very strong but light in weight. They will not bend under strains, but if heated they may be bent to any desired shape. The hinge is quite strong, and the complete article may be folded up. The struts are faired with balsa, and the axle is just let into the channel and soldered.

GADGET No. 7.

AN AIRSCREW RETAINER HOOK.

H. BOYS,

20 The Avenue, Whitley, Coventry.



This little gadget serves a number of purposes; it facilitates winding, retains the airscrew on its shaft, is easily removed for changing the airscrew, and forms a protection for the end of the shaft.

A 14 or 15 gauge cycle spoke nipple is used with a shaft of the same size. These parts should have *cut threads*, and not the usual rolled thread, and can be obtained from most good cycle shops. First bend from 20 s.w.g. wire a "V"-shaped loop, with the ends turned at right angles, as Fig. A. Remove the square portion of the nipple, and cut two slots with a

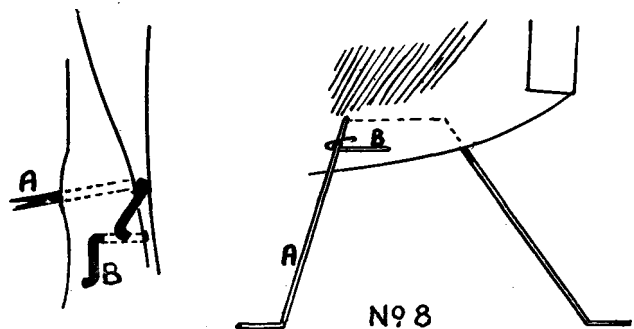
hacksaw, as Fig. B. File away the plating from round the slots to facilitate a good soldered joint. Spring the wire into the slots and well solder. Put a blob of solder in the thread at the large end of the nipple, to prevent it screwing too far on to the shaft. To prevent the solder from running too deep through, dip the spoke into some thick oil and screw it about $\frac{1}{4}$ in. into the nipple. Use killed spirits or Baker's solution for soldering. The complete article is shown in Fig. C. In use the nipple is screwed on to the airscrew shaft, and can be sunk flush with the face of the airscrew or spinner, and looks very neat. When used with a hook for winding it forms a universal joint, and does not put a lot of strain in the nose of the model.

GADGET No. 8.

A FREEWHEEL UNDERCART.

W. T. D. ARNAUD,

2 Quarryhall Terrace, Hamilton, Lanarkshire.



The first idea is a new type of shock absorbing undercarriage. The sketch depicts the lower portion of a fuselage. A is the normal type of undercart legs, made from stout wire, which carry the wheels. "B" is a length of springy wire passing through the fuselage and looping loosely about "A," as shown. The wire parts should be secured to the fuselage by brass bushings, bound to the longerons. On landing the wheels spring to the rear in the approved style, the rigid "B" serving to stiffen the spring. If the main legs are faired with balsa a clean, light undercart results.

The other drawing shows an airscrew boss, and is a new type of freewheel suitable for heavy power. "A" is the driving shaft, which is passed through the prop. and bent through 90 degrees and then crooked at one end. "B" is the clutch which passes via a brass bush through the airscrew at right angles to the driving shaft. The end is crooked as the other one, thus engaging under power and falling free when the "juice" runs out.

Editor's Note.

The Editor wishes to congratulate *all* the entrants for this competition on the high standard of their entries. It was only after considerable difficulty that the final awards were made, so excellent were many of the entries which just failed to gain prizes.

Judging by the great number of entries received, this competition was very popular, and it will therefore be repeated at an early date.

BOOK REVIEW

Petrol-Engined Model Aeroplanes. By C. E. Bowden. Published at 3s. 6d. by Percival Marshall and Co. Ltd., 13-16 Fisher Street, London, W.C.1. By post 3s. 10d.

The author of this book needs no introduction to our readers. Pre-war model enthusiast, and winner of many prizes for rubber-driven aircraft, Capt. C. E. Bowden has, in recent years, established himself as the leading expert on petrol 'planes, and his book will further enhance his reputation.

Commencing with a "brief history" of model aeronautics, in which he traces the development of model aircraft from 1914 to the present day, Capt. Bowden passes on to chapters on the power unit, ignition systems, and control of flight duration.

Following are three chapters on stability, design, and construction, in which the author, in a very able and straightforward manner, sets out the various principles underlying the design of petrol 'planes.



In the next chapter propellers are discussed, whilst in chapters 9-12 are given fully illustrated descriptions of several well-known prize-winning petrol 'planes built by the author.

The chapter on "Flying a Petrol Model," whilst short, is particularly valuable, reflecting as it does the sum total of so many years' practical experience.

With an introduction by Mr. F. J. Camm, himself a pioneer in Model Aeronautics, and an expert on petrol 'planes, the "hall mark" is set to a most valuable book, which every petrol 'plane enthusiast should read.

Capt. Bowden is well known to all our readers as a contributor to this journal since its early days, and the publication of this book will undoubtedly increase his popularity as a writer favoured with the ability to deal with his subject in a simple and "easy to follow" manner.

The book contains 174 pages and 93 illustrations, and is strongly recommended to all those interested in petrol 'planes. Not only can readers learn a great deal from its pages, but they may select a model and build it, with the "comfortable" knowledge that if they follow the detailed designs and instructions given by the author, their models will give an excellent performance.

That Capt. Bowden still remains an enthusiast for rubber-driven models is shown by the accompanying photograph—taken at the 1937 Rally organised by the Northern Heights Model Flying Club, in which he is seen being assisted by Mrs. Bowden, adjusting a very successful rubber-driven model of his own design.

Model Aeronautics.

Edited by Frank Zaic. Published at 15 cents by Model Aeronautics Publications, 88 East Tenth Street, New York, N.Y. Price in England 9d.; post free, 10½d.

Model Aeronautics is published every second or third month. Its purpose is to bridge the gap between the issuance of the *Model Aeronautics Year Book*—also edited by Frank Zaic, who is well known in this country as the leading expert in America on Model Aeronautics.

This little booklet will undoubtedly serve its purpose, containing as it does sixteen pages, five of which are entirely devoted to scale drawings of recent models—and very interesting notes and news from all parts of the world.

Many of our readers have "complained" that a year is too long to wait for Frank Zaic's Year Book, and the publication of this bulletin will prove of great satisfaction to them, though in no way detracting from the value of the "parent" book, and we congratulate Mr. Zaic on his enterprise in introducing his Bulletin, and assure our readers that they will find it of great interest.

BOOKS TO READ

The Design and Construction of Flying Model Aircraft. By D. A. Russell, A.I.Mech.E., A.I.E.E., M.Assoc.Min.E.E. Published at 5s. by the Harborough Publishing Co., 40 High Street, Market Harborough, Leics. By post 5s. 6d.

Aeroplanes and Aero Engines. By P. H. Sumner. Published at 15s. by the Technical Press Ltd., 5 Ave Maria Lane, Ludgate Hill, London, E.C.4. By post 15s. 6d.

The New Model Aeroplane Manual.

By L. H. Sparey and C. A. Rippon. Published at 3s. by Percival Marshall and Co. Ltd., 13A Fisher Street, London, W.C.1. By post 3s. 4d.

Zaic's Model Aeronautics Year Book, 1937.

Considerably enlarged, with many more drawings and data. Published at 4s. By post 4s. 3d.

Copies of all of these books can be obtained direct from the offices of THE AERO-MODELLER.

BRICKS

AND BRICK MODELS

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102 SHOE LANE, LONDON
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NEWS FROM THE CLUBS

THE MIDLAND RALLY

Held at Baginton Aerodrome, Coventry, on July 25th, 1937.

Full report by "Aero-Modeller" Staff Reporter

AERO-MODELLERS from all over the Midlands gathered together on July 25th, at Baginton Aerodrome, Coventry, for the annual rally. The clubs represented were:—Coventry, Midland, Birmingham, Leamington and Warwick, Rugby, Stonegate (Leicester), and Northampton.

The competitions started with a *Concours d'Elegance*, points being awarded for workmanship, finish, and appearance. This was won by Mr. W. Lightowler, of Coventry, with a parasol monoplane with a fuselage of circular cross section containing forty stringers. Second was Mr. A. E. Morrod, Coventry; and third, Mr. R. Timmings, of Leamington and Warwick.

Next competition was for the Brandish Cup for duration, each club being represented by a team of four. The average duration of each four competitors' best flights was counted, and was won by the Midland Club of Birmingham, with an average of 92.95 sec., and Warwickshire (Coventry) second, with an average of 88.97 sec.

The Lightweight Duration Contest for models between 2 and 7 oz. was won by Mr. R. Chainey, of Coventry, with an average of 76.2 sec. Mr. J. Harris, Coventry, 70.6 sec., was second, and Mrs. M. F. Clifford, of Birmingham, was third with 67.5 sec.



A fine scale Hawker "Fury" by a member of the Brighton and District M.F.C.

The Heavyweight Duration Contest for models between 7 and 12 oz. was won by Mr. W. Binnersley (Midland) with 77.2 secs. average of three flights. Second was Mr. H. A. Hassall (Birmingham), 81.3 sec., and Capt. C. E. Bowden (Leamington and Warwick) was third with 41.8 sec.

Nomination Contest was won by Mr. G. W. Rose; second was Mr. J. Fryer, both of Coventry. Each competitor had to state his own time, 30 sec. being the minimum.

Messrs. F. J. Skinner (Rugby) and A. Barr (Coventry) tied for parachute dropping. Models had to incorporate a fool-proof release. Forty points were allowed for design, and 20 points for each of three drops. Mr. B. W. Withers (Midland) won the Glider Contest. Mr. G. Dunmow (Stonegate) won a special prize for the best flying scale model, with a very nice "Miles Falcon."

The wind was very rough, and any model putting up a duration of a minute or more was blown out of the aerodrome, and, unfortunately, a lot fell in the lagoons of the sewage works. These were rescued with string and sticks, mostly without damage. Capt. Bowden brought two petrol models, but did not attempt to fly them, due to the high wind. One rather amusing incident occurred when Mr. Skinner's model dived at the spectators. All those in the line of flight ducked, but one wheel caught a man on his head without harm, and the model rose clear. It immediately turned round, and with

great ferocity dived again at the ground, making sure this time by going low enough, and dashed itself against someone's legs.

Two tailless gliders were brought from Birmingham. One, with a large nose made of sponge rubber, put up some very good glides. A tiny tailless model was flown by Howard Boys (Northants and Coventry) for about 20 sec. This model has been seen on two occasions to mystify swallows, the swallows flying close to investigate until after the model had landed.

The rally was very well organised by The Warwickshire Model Aero Club, which has its headquarters at Coventry.

Lancashire Model Aircraft Society.

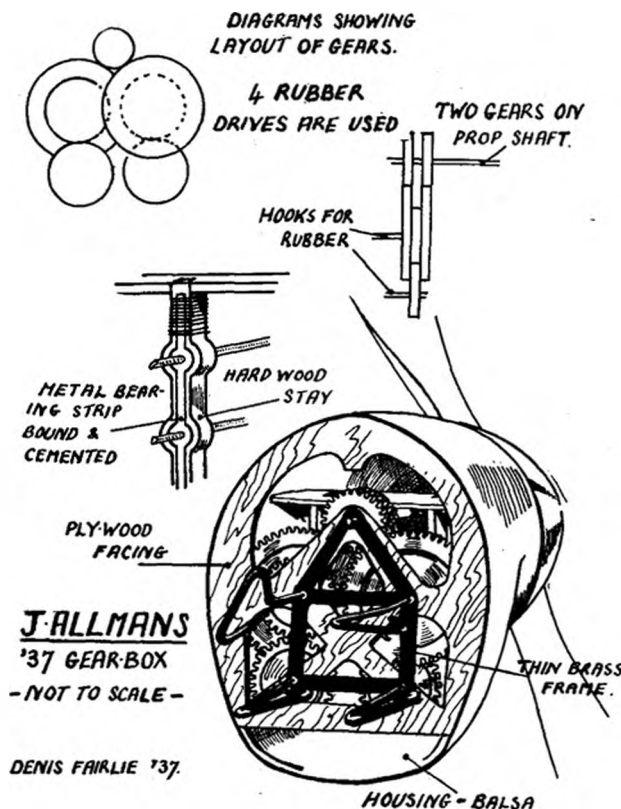
Hon. Sec.: C. S. Rushbrooke, 14 Ennerdale Drive, Ashton-on-Mersey, Sale, Cheshire.

Three competitions will be held at the Manchester Airport, Barton, on Sunday, September 5th, starting at 2.30 p.m. They are the S.M.A.E. Biplane Contest, Freshman's Contest (open to this year's members only), and a Junior Contest.

Full details of rules for the two latter contests are given on the competition fixture list.

On September 19th the Farrow Shield Contest will also be held at Barton, starting at 2.30 p.m.

Full particulars of membership may be obtained by writing to the Hon. Sec. at the above address.



LOOK OUT FOR THE SPECIAL REPORT IN OUR NEXT ISSUE—FULLY ILLUSTRATED BY OUR ARTIST, DENIS FAIRLIE—OF INTERESTING FEATURES OF COMPETITORS' MACHINES.

No. 66 (Newcastle, Staffs.) Air Leaguer Flight.

We held our first meeting on July 2nd, and our first competition on July 18th. This was held to determine Flight Leader, and I was lucky in winning with an average of 53.3 secs. for three flights. The runner-up obtained an average of 49.6 secs. The machine I used was a modification of a well-known design, 37 in. span, 12 in. propeller, 6 strands $\frac{1}{2}$ flat. We have our own clubroom and flying field, etc. The subscription is quite low. Although we are a small club as yet, our motto is, "More models than members." The best flight as yet by a member is 3 $\frac{1}{2}$ minutes (Gordon Light), and all our members have exceeded 60 seconds. Our planes consist of Duraplans, Lincolns, Gordon Lights, and, of course, machines of our own design, one in particular, a small 24 in. span model with a terrific climb, aptly named Mars Express; it certainly tries to get there. Average duration 40 seconds. One or two hush-hush models are on the go. We should welcome all Air Leaguers or would-be Air Leaguers in the district. My address is: 27 May Avenue, Maybank, Newcastle, Staffs.

Bradford Model Aircraft Club.

The months of June and July have been full of activity for the club, although the weather has caused some events to be postponed owing to high winds.

A large number of our members attended the Northern Rally at Barton. Mr. A. K. Bottomley was third in the gliding with his "Albatross," and Mr. R. F. L. Gosling was third in the scale model section of the *Concours d'Elegance* with his Miles Hawk Major, and second in the duration section with his "Itzit," a mid-wing twin-rudder machine built to this year's Wakefield rules.

On June 18th the Club R.O.G. Competition was held in conjunction with the Weston Cup. Results:—

| | 1. | 2. | 3. | Av. |
|--------------------------------|-------------------------|------|------|-----------|
| 1. H. E. Taylor, Falcon II. | Wt. 8 $\frac{1}{2}$ oz. | 88.5 | 86.5 | 69.5—81.5 |
| 2. L. Stott, Halex-Jax ... | Wt. 8 $\frac{1}{2}$ oz. | 82.5 | 90.0 | 66.0—79.5 |
| 3. R. F. L. Gosling, Itzit ... | Wt. 8 $\frac{1}{2}$ oz. | 73.8 | 65.4 | 83.5—74.2 |

Mr. Taylor was thereby placed third in the Weston Cup results.

On the same day Mr. Whitfield had 38 flights with his Comet II, driven by a Baby Cyclone, showing most consistent flights. Mr. Vaughan also was flying his Monocouque with Baby Cyclone, and made one flight of over 6 minutes.

The seaplane competition, which should have been held on July 27th, has been postponed owing to strong winds, although a large entry turned up in hopes of calmer conditions later in the day.

Strong winds also prevented us from flying the scale model contest on July 4th at Yeardon Airport. The models were, however, judged by Messrs. Collins and Palmer, of the Yorkshire Aeroplane Club. A Stinson Reliant, built by E. Paul, gained most marks, closely followed by a Heston Phoenix, built by H. E. Taylor. The flying part of the contest will take place during Sundays in September.

On July 11th there was a great deal of thermal activity on Baildon Moors, and various machines were carried to great heights by their help. C. B. Lewis, one of our junior members, was trying out a new machine, when it was carried up and eventually entered a cloud. Later it was found less than a mile from the launching point. G. A. Adcock also had a flight of over five minutes. None of these were timed, otherwise they would have beaten the club records.

Bournemouth Model Aircraft Society. Gala Day Notice.

A grand Gala Day is being arranged by the B.M.A.S., to be held at "High Post" Aerodrome, near Salisbury, on Sunday, September 5th, 1937.

The programme contains many interesting competitions for both rubber and petrol-driven models, for which valuable prizes will be awarded.

A warm welcome is extended to all clubs and societies, as one of the chief items will be the contest, for the first time, for the "Southern Counties Challenge Cup," for petrol-engined models.

This cup is to be held for one year and is open to all clubs. Full details of this important contest will be announced later. Entrance fee, for rubber, 6d.; petrol, 1s. All competitors flying will be entertained to tea at the Aerodrome Hotel as guests of the B.M.A.S. Will all those intending to compete in any of the competitions please write to the secretary, H. F. Weller, 55 Victoria Avenue, Winton, Bournemouth, and they will be assured of a right good time. Competitions to commence at 2 p.m. sharp.

Liverpool Model Flying Club. Affiliated S.M.A.E.

Hon. Sec.: N. D. Hughes "Finchleigh," Rose Row, Gatacre, Liverpool.

On Saturday, July 17th, we had the best attendance of the year at our Allerton ground. Among those present were Mr. E. A. Davis, our president, and Mr. W. A. Edwards, vice-president. Mr. Edwards had very bad luck when his 11-oz. glider had an argument with a concrete post. (The post was undamaged). This model is really remarkable, being very slow for its loading and has a wonderfully steady and flat glide.

Another member worthy of some space is Mr. L. A. Evans, who has two models which do exactly the same thing each time they are launched. Both of them are as silent as a sail-plane, yet they climb straight up to about a hundred feet and then continue to do a circling climb, ending by a lovely flat glide. Very consistent flying indeed.

Seven new models made their appearance: Two gliders by Mr. Hughes and Mr. Radley; one duration job by a new member, Mr. W. J. Ford; one "Aero-Lark" biplane by Mr. D. Evans; another model by Mr. Edwards, which climbs as if it were after the moon. Mr. Davis brought two new models, which are to be produced as kits by "Aeromodels Ltd." One is a scale "Hawker Fury," and the other is a high-wing monoplane, with lines like the D.H. Comet. (And it flies like it).

On Wednesday, July 21st, we had another good attendance at our clubroom, Lark Lane, and through the kindness of the proprietors of "Aeromodels Ltd." we were able to witness an interesting series of rubber tests, and take notes of same for future reference. Messrs. Ingram and Rigby had on view a fine set of photographs of club planes and events, including a nice petrol job they have built. We hope to see this in the air soon.

The Ulster Model Aircraft Club.

Hon. Sec.: J. H. J. Hawley, F.R.S.A., A.C.C.S., "Couleen," Shandon Park, Knock, Pe'fast.

Flying ground: Ards Airport (by kind permission of Lord Londonderry).

As July was a holiday month many of our members were away, and in consequence very little flying was done. The Secretary visited the Eournemouth Club and was well and truly initiated to the technique of flying petrol jobs. The direct outcome of this was that he brought a finished "Comet II" back to Ireland, and after thoroughly enjoying the hospitality of Mr. A. E. Brooks and his colleagues, returned home with the fraternal greetings and good wishes of the Bournemouth M.A.C. The U.M.A.C. reciprocates these greetings, and we understand that a visit from the B.M.A.C. is not altogether out of the question. A very cordial welcome awaits them (less the usual Irish fireworks).

Several of our members have recently completed new machines whilst our Chairman should certainly take up production seriously, for he builds a new machine (or so it seems) nearly every week.

As we have not yet reached full strength we are still open to receive applications for membership from those residing in the Province. The Secretary will gladly provide details.

Oxford Model Flying Club.

President: A. F. Houlberg, Esq.

Flying Ground: Port Meadow, Oxford.

Hon. Sec.: H. Forward, Esq., "Redriffe," Barton Road, Headington, Oxford.

A meeting was held on August 5th, at Mr. Exon's house. Arrangements were made for receiving the Banbury Club on Sunday, August 8th. After this Mr. Houlberg described the Wakefield competition.

Mr. Parker and Mr. Smith were elected members. We may hope for yet another petrol model, as Messrs. Griffith are building one.

Flying started about five o'clock on Sunday. Banbury brought three petrol models and some very successful flights were obtained. They were the first petrol models to fly over Port Meadow.

Mr. Houlberg's 12-ounce model made many consistent flights of 80 sec. and over. He raised the club record to 115 sec.

I hope that a very enjoyable evening was had by all.

Again I would ask those interested to get into touch with the hon. sec. or come to the flying meetings which take place on the polo pitch, Port Meadow, every Tuesday evening from 6.30 till dusk.

Liverpool Model Aircraft Society.

Quite successful outdoor flying meetings have been held each week, in spite of the unkind weather. Many new models have been produced and tested, several of the recently elected members obtaining encouraging results with first attempts.

Mr. E. Dillon, as an instance, got flights of from 82 to 110 seconds with his first model, a 36 inch span general purpose job—good work for a newcomer.

The old hands have been occupying themselves principally with Wakefield machines, two of these competing in the trials held in London recently. Mr. R. B. Sisson was unable to go to London, his 'plane being flown proxy by Mr. G. H. Roberts (also a member of our club).

This machine put up the best show of the L.M.A.S. contingent, averaging 201.5 seconds in the big event. On a flight previous to the competition, the 'plane remained in the air over 82 minutes, being later found undamaged a considerable distance from the aerodrome.

Mr. T. Comber, our other representative, got in quite a good competition average, his best flight being 2 minutes 48 seconds.

Both the above machines used gears, Mr. Sisson favouring twin skeins geared up to the prop., the gear assembly being the result of extensive bench tests, and is of special design and construction, to withstand the considerable torque imposed by the powerful rubber motors. This machine employs a lifting tail of generous proportions.

Mr. Comber preferred twin skeins geared together, but without step up, the prop. being of large diameter and blade area.

Several members are using single skein motors on their Wakefield jobs and getting very promising results.

The interest in the club's duration competition for the L.M.A.S. Cup (under 1937 Wakefield rules) is greater than ever this year, the diversity of opinion as to the best method having contributed quite considerably.

Brighton District Model Aeroplane Club (Affiliated to the S.M.A.E.).

President: A. G. Head, The Croft, Bigwood Avenue, Hove.
Hon. Sec.: H. J. Tugwell, 27 Stanley Street, Brighton.

On August 1st and 2nd twenty members visited Fairey's Aerodrome. Mr. Brigden was chosen as a proxy flyer for New Zealand. He was not able to accomplish any startling times, because the model that he was given to fly left much to be desired. Mr. Cohen entered for both petrol model contests, and Mr. Lucas for the Bowden, but no success was gained. Messrs. Head, Plant, Wynne, Brigden, Lucas and Ford attended the banquet to wind up a very enjoyable week-end.

August 8th.—The annual competition for the Lucas Cup was flown off at Portslade, the results being as follows:—

| | |
|--------------------------|------------|
| 1st, H. J. Tugwell | 379.8 sec. |
| 2nd, J. Cohen | 178.0 " |
| 3rd, F. Lederlin | 126.6 " |
| 4th, R. F. Brigden | 110.0 " |

Mr. Tugwell's winning flight constituted a H.L. light-weight record. Mr. Cohen, assisted by Mr. Gee, after unfortunately breaking a propeller, succeeded in making several good flights of 80 sec. on their Brown-engined Miss America. Messrs. Towner and Garry flew scale models with marked success.

The club records to date are:—

| | |
|------------------------------|------------------|
| Light-weight (under 5 oz.):— | |
| H.L. H. J. Tugwell ... | 6 min. 19.8 sec. |
| R.O.G. R. J. Wynne ... | 4 min. 10.0 sec. |
| Heavy-weight (over 5 oz.):— | |
| H.L. R. E. Richards ... | 4 min. 30.0 sec. |
| R.O.G. R. E. Richards ... | 1 min. 27.0 sec. |
| Scale:— | |
| H.L. H. J. Towner ... | 45.0 sec. |
| Petrol:— | |
| R.O.G. J. Cohen ... | 7 min. 30.2 sec. |
| Gliders:— | |
| H.L. M. Ford ... | 1 min. 29.1 sec. |
| Catapult:— | |
| F. Foster ... | 1 min. 48.0 sec. |

All aero-modellers visiting Brighton should get in touch with the Secretary, and they will be made honorary members of the B.D.M.A.C. during the period of their visit.

J. P. Lucas,
Press Secretary.

Wimbledon Model Flying Club.

Sec.: Norman (Junior), 145 Kingston Road, Wimbledon.

This club has now been in existence for five months, our membership standing at thirty-four, and there is still room for more members! We have a fine clubroom five minutes from Wimbledon Common, which is a great advantage. Prospective members should get in touch with the secretary at address above.

On Sunday, July 4th, the club held a general meeting on Wimbledon Common. The weather was very windy, but this did not stop Mr. Pinkham from making several flights of over a minute.

On Sunday, July 11th, we held another general meeting on Wimbledon Common, and twenty-five members were present. Mr. Norman had the N.6 with him. This is a four foot high wing cabin job; his best flight was of 115 seconds R.O.G. Mr. Ray was flying his Lincoln and getting consistent flights of over a minute. Mr. Cockral was flying a free-lance low-wing semi-scale job, and it was found to have a very fine climb.

On Sunday, July 18th, we all went down to Fairey's Aerodrome for the Wakefield Trials. Before lunch Mr. Norman flew his gas-job "Puss." His first flight was very good, but after tea he took her out again and had the bad luck to crack it up. After tea there seemed to be a lot of thermals about, and we all had some fine flights. Mr. Cockral put up a club record for scale jobs with his "Miles Falcon," his time being 28.5 seconds. At eight o'clock we all returned home after a very enjoyable day.



Mr. Fieldgate's (Wembley and District) fine autogiro. Has fully hinged blades which are controlled from cockpit. It is built entirely from balsa.

Harrow and District Model Flying Club.

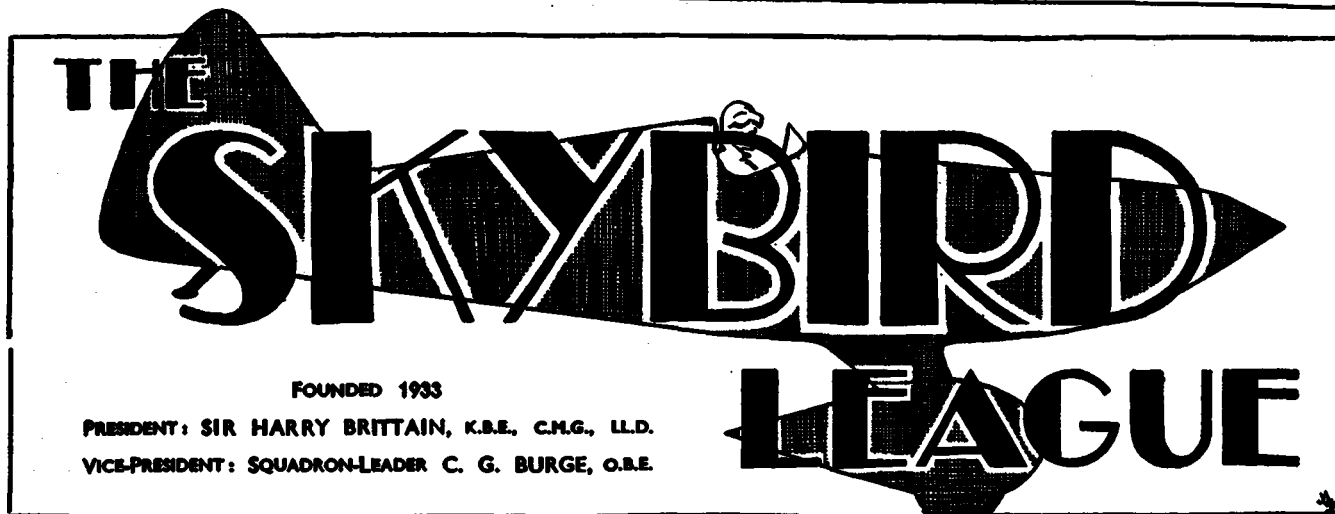
Results of our third and fourth major competitions are given below:—

- Third competition, on Sunday, at Hatch End:—
1. E. de H. Rountree, 69.1 secs. Average of 3 flights.
 2. A. G. Newton, 64.6 secs. Average of 3 flights.
 3. J. M. Hands, 54.4 secs. Average of 3 flights.
 4. L. McFarlane, 42.3 secs. Average of 3 flights.

- Fourth competition, on Sunday, at Hatch End:—
1. J. O. Young, 72.7 secs. Average of 3 flights.
 2. E. de H. Rowntree, 67.2 secs. Average of 3 flights.
 3. R. Bedford, 23.6 secs. Average of 3 flights.
 4. A. G. Newton, 23.3 secs. Average of 3 flights.

No Wakefield trials were held owing to the loss, and absence of, eligible machines on the day allotted.

However, one member, A. G. Newton, entered his machine for the Wakefield Trials proper on July 18th, and averaged 3 min. 30 secs. for three flights, being placed, I understand, seventh. It is hoped to arrange a novelty contest later, open to all clubs and also an inter-team contest with Wembley M.F.C. in August.



Headquarters: 3 ALDERMANBURY AVENUE, LONDON, E.C.2

Gossip From Headquarters

Handicrafts.

RECENTLY, our former Prime Minister, now Earl Baldwin, expressed his dread of this age of mechanical mass production. Mechanical mass production has undoubtedly killed the complete craftsmen in scores of trades. The vogue to-day is for the semi-skilled, because such workmen require little training and cannot command a qualified craftsman's terms. What these semi-skilled men lack in skill the machines overcome. Thus the master man is cast aside. And there is little incentive for the younger generation to become masters of a trade. Lord Nuffield, the great motor magnate, who must have owed much of his phenomenal success to his mastery of engineering, has just said that in his opinion the schools were not giving enough consideration to handicrafts. Brains were being developed for clerical followings, and handicraft skill was being neglected.

We cannot help reflecting that this is undoubtedly true, but we can modestly claim that such neglect of handicrafts is less serious when a boy pursues the hobby of constructive modelling, for this requires a combination of brains and skill. If this were not so there would be little to choose between the finished models. All intelligent adults, and especially schoolmasters, place the hobby of modelling on a very high plane, and the letters we receive from Skyleaguers repeatedly speak of the encouragement and support received from their masters.

This suggests that the neglect of handicrafts in school curriculum is rarely the fault of masters, but of higher authorities, who may still regard a man who works with his hands as of the lower species. If the world were to suffer a sudden cosmic catastrophe, which would be the most useful survivor; the man who could translate Virgil or the man who could make a wheel?

Russia Gains Long-Distance Record.

Following quickly upon their flight across the North Pole, Russian airmen have now gained the world's long distance record over the same Arctic course, beating the previous record by the substantial margin of 1,100

miles. They covered 6,700 miles in a non-stop flight of over 62 hours, using the A.N.T. 25-1 monoplane, which is powered with one 950 h.p. Russian engine of V-12 design. The monoplane was thoroughly equipped for its great flight, having a heated cockpit, flotation gear in case of a forced landing, and de-icers on the wings. Oxygen was used by the three airmen, Gromov, Yumashev, and Danilin, when they rose to 18,000 feet over the Canadian Rockies. The flight started at Moscow and the big monoplane finally came down owing to a petrol leak at San Jacuito, California. When the three heavily-clad figures staggered out of the machine in the warm Californian sunshine, they momentarily alarmed some farmers whom they approached. All they asked for was a bath, a meal and a bed!

The previous long distance record was held by Codos and Rossi, of France, who covered 5,666 miles in August, 1933. The last time that Great Britain held it was in the same year, when Squadron Leader Gayford and Flight-Lieut. Nichollets covered 5,309 miles in the Fairey monoplane.

"Dædalus."

Our caption is the title of a charming little quarterly magazine dealing with aviation and model aeronautics in East Anglia. We have received the summer issue, which is No. 8 of Vol. 3, and its neat pages are crammed with interesting news. Modellers receive prominent attention, particularly the Clare and District Club and the Phoenix Club. The latter, under Mr. V. W. Jones, is making remarkable progress. *Dædalus* warmly congratulates them on coming fifth in the "Skybird" League Club contest a few months ago, and their Leader for securing a place in the individual contest. At Lowestoft, Mr. Nicholls reformed the "Skybird" Club and arranged a successful exhibition at Messrs. Tuttle and Sons. The Editor congratulates Miss Ridley Hooper on adding yet more prizes to her already large collection by her success in the Air League's Drawing Contest and the "Skybird" Rally. Ipswich modellers are invited to get into touch with Miss Hooper with a view to forming a club.

District Commodore M. Kinchin Smith, who is the Editor, announces two model competitions open to all East Anglian modellers. The first is for scale models built from "Skybird" kits, and the second for flying models. The closing date for the first is August 31st, and the latter will be held at Ipswich Airport on Saturday, September 4th. Valuable prizes are offered, and all enquiries should be directed to Mr. M. Kinchin Smith, at Clare Priory, Suffolk.

A Distinguished Modeller.

Captain G. J. Powell, the Imperial Airways pilot, who commanded the flying-boat *Cambria*, in the second of the series of Atlantic flights, is an enthusiastic collector of aircraft models, and his collection is said to include all the past and present air liners of Imperial Airways in scale models. He flew the *Cambria* across from Foynes (Ireland) to Botwood (Newfoundland) in 17 hours 48 minutes. Captain Powell is only 29 years of age, but he has spent 8,000 hours in the air!

Please Remember, Skyleaguers!

Once again we appeal to all members to write their club or associate number at the top of every letter they write to headquarters. Let us again explain why it is so necessary to do this simple thing, not only for our convenience, but for the satisfaction of members, too. We receive a large volume of correspondence, a proportion of which does not come from members of the Skybird League. We make it our business to give full consideration to every letter received, but naturally we give preference to correspondence which contains a stamped envelope for a reply. The next important consideration is whether the registration or club number of the correspondent is stated.

Now, members, when you have completed your next interesting letter for H.Q. please do remember these points for our mutual benefit.



VICTORS!—Members of Club No. 459 (Acton), winners of the Middlesex Club Championship, 1937, with the silver challenge cup presented by District Commodore Eric St. John, and the airport presented by League Headquarters. (Left to right) John O. Jeffery, H. C. Rouse (Club Leader), D. M. Rouse and Neil Brown.

NEWS FROM DISTRICT COMMODORES

South Woodford, Essex.

We are very sorry to hear from District Commodore E. M. Allies, of South Woodford, that he is resigning his office of D/C, although it is for a very good reason. He is entering Queen Mary's College to study aeronautics this autumn. We wish him every success in his career, and we take this opportunity of recording our appreciation of the excellent work he has accomplished on behalf of the League and modelling. We feel sure that all Skyleaguers who have come in contact with D/C E. M. Allies will join us in expressing this appreciation. It is good to hear from him, however, that in spite of his necessary resignation he will continue to support the League whenever possible, while at present his keenness for "Skybird" modelling is as strong as ever. In his letter D/C Allies tells us that he has been helping R. H. Jacobs in arranging a competition and two exhibitions. On Coronation Day the W.M.A.C. held a rally of all clubs in the district, and the winner of the 1/72 scale competition was Mr. Charles, of the Harold Wood M.A.C., with a Gloster "Gauntlet," while Mr. C. Pratley, of the W.M.A.C., was second with his "Heinkel." On Empire Air Day they held an exhibition of models at North Weald Aerodrome. More than sixty "Skybird" models were shown and greatly admired by the large number of visitors, many of whom were heard to remark on the realistic and life-like nature of the models. On July 3rd the third Speech Day Aeronautical Exhibition was held at Chigwell School. Although fewer models were on view, and naturally there was not the crowd seen at North Weald, the exhibition was a great success. Many aged and not-so-aged parents were observed closely studying hollowed cabins and retractable "undercars," and then suggesting to their sons that they should take up modelling. We are sure that many of those "sons" took advantage of the parental advice on this occasion.

St. John's Wood, London.

District Commodore G. Meaden tells us that the C.O. of his Sea Cadet Unit expressed the view that the "Shipseries" would be very useful for teaching recruits the different sections of a battleship. He also gives us an interesting account of Empire Air Day at Northolt, which he visited with two other club members, and met many associate and league members, as well as D/C Eric St. John at his portable "Skybird" airport, which we fully described in our last issue. One member had the luck to fire a burst of machine gun ammunition from a No. 23 Squadron "Demon." The D/C also reports that seven members visited the R.A.F. Display. There is a prospective member with the lucky job of being part of the week at the Fairey Aviation Co.'s aerodrome at Hayes, while he also has access to Vickers at Weybridge. Naturally, he has some interesting first-hand news for the D/C, who adds that this lucky fellow was not very keen on model building until he had seen the D/C's collection, and now it is a case of "another 'Skybird' bug-bitten enthusiast." Good modelling to him, we say, and congratulations to the D/C for winning over another follower.

Honor Oak Park.

District Commodore Donald A. S. McKay, who is now a Sergeant R.A.F.V.R. and leader of Club No. 114, writes to Headquarters suggesting a mid-year photographic competition, open to all members regardless of their age, and divided as under:—

- | | |
|-------------------------------|------------------------|
| Section 1. Wartime photos | } of "Skybird" models. |
| " 2. Modern service and civil | |
| " 3. Miscellaneous | |

A suggested entrance fee of 7½d. (return postage odd 1½d.) for a maximum of four different photos per section. (7½d. per section of course). We would like members to send their views to H.Q. in order that we may judge if such a competition will meet with their approval and support.

Belmont, Surrey.

District Commodore R. H. Medley tells us that at the R.A.F. Display he met crowds of Skyleaguers, one of whom had taken along all his models (a small hand-case will carry quite a number of "Skybird" models), which were admired by everyone around him. Quite a counter attraction apparently. The D/C asks us to mention that he has fixed his Rally

NEWS FROM DISTRICT COMMODORES.—Continued.

for 2.45 p.m. on Friday, September 10th. He has yet to fix the meeting place. His own models will be on view, the latest of which, the "Grumman F.2.F.," he took to his school and found it very popular.

Alveston, Glos.

An interesting experimental undercarriage is being tried by District Commodore R. A. Barnwell with his "Grumman F.2.F." He writes: "I have built an experimental undercarriage for it, which is at present mounted on a balsa block until I get it all working properly. At the moment I cannot cope with lateral movements in opposite directions from one simple lever in the cockpit, although I am going to play with some small bell cranks soon, so the undercarriage I am fitting is of the type in which the top ends of the oleo legs slide on a vertical central tube which I have seen fitted to similar aircraft." Replying to the D/C, we have agreed that the undercarriage for the "Grumman" presents some difficulties if it is to operate effectively, but his sketch suggests a practical idea, although it will necessitate a fair amount of work cutting away the interior of the fuselage. We advised the D/C that part of the trouble could be overcome by drilling a hole in the nose of the fuselage, then blocking up the end, so that later the engine can be mounted in place. D/C Barnwell also informs us that he is exchanging drawings with J. O. Isaacs, of Southampton, and D. G. Gilmour, of New York, and hopes to increase his range of enthusiasts in this direction. His address for other interested members is Alveston House, Alveston, Glos. H.Q. has recommended to him another member, namely Associate Member R. A. Macfarlane (No. 1046).

Hull, Yorks.

D/C R. H. Glenwright, who is a Sergeant-Pilot in the R.A.F.V.R., reports his arrangements for a competition in his district, including Grimsby, and in the other direction Scarborough. It is of a literary character, for members have to give definitions for various features in aircraft and flying. Modellers who are interested may get in touch with the D/C at 11A Woodhouse Street, Hedon Road, Hull.

Southend, Westcliff and Leigh.

District Commodore C. L. Grocott reports that several of the local members have promised to attend at the Southend Flying Club on August 30th to meet their fellow Skyleaguers from the Clare district.

Arrangements have been made for the party to take tea at the club, and it is hoped with the co-operation of the Flying Club to give the members an opportunity of some "short flights (2s. 6d.) each over the Thames Estuary in the "Scion." Skyleaguer Norman Jones, of Club No. 265, hopes to attend and to exhibit some of his club's models. One member of Club No. 265, R. Imray, has made over 100 "Skybird" models.

CO-OPERATION WITH FLYING CLUBS.

IN our August issue we discussed the subject of widespread co-operation between Skybird Clubs and Flying Clubs. This month we make a practical contribution towards this objective by publishing herewith the most up-to-date list of Flying Clubs in this country, together with the names and addresses of secretaries, where these are available. We would suggest that it is preferable for Skyleaguers to get into touch with their nearest Flying Club only through their Club Leader or District Commodore. If members begin to write letters individually the Flying Club secretaries will be inundated with a large correspondence, when only one introductory letter would suffice.

A glance at the list will show that the Secretary's address is not always the same as the aerodrome, and as this probably means that he does not conduct the business of the club at the aerodrome, he does not want correspondence addressed to him at the aerodrome. Be careful about these small points. Most club secretaries do all their work voluntarily, and one does not want to add to it unnecessarily.

Forty-eight of these clubs receive a Government subsidy, and it is these whom we think may prove most beneficial to Skyleaguers. They are listed first. The remainder include many private clubs, such as those attached to the Services, while others are attached to commercial organizations or operate like the Government-assisted clubs, but without Government financial assistance.

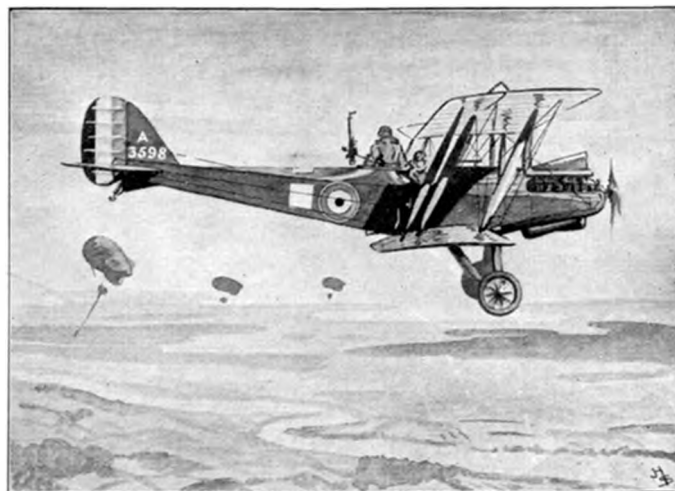
CIVIL FLYING CLUBS IN GREAT BRITAIN.

- London Aeroplane Club:** The Secretary, Hatfield Aerodrome, Herts.
- Lancashire Aero Club:** The Secretary (T. E. Burgess, Esq.), Avro Aerodrome, Woodford, nr. Stockport.
- Midland Aero Club:** The Secretary (W. H. Sutcliffe, Esq.), The Aerodrome, Castle Bromwich.
- Newcastle-upon-Tyne Aero Club:** The Hon. Secretary (F. L. Turnbull, Esq.), Municipal Airport, Woolsington, Kenton, Newcastle-upon-Tyne.
- Hampshire Aeroplane Club:** The Managing Director (W. L. Gordon, Esq.), Southampton Airport, Southampton.
- Norfolk and Norwich Aero Club:** The Secretary (John Taunton, Esq.), Municipal Aerodrome, Norwich, Norfolk.
- Bristol and Wessex Aeroplane Club:** The Manager (Capt. L. P. Winters), Bristol Airport, Bristol.
- Scottish Flying Club:** The Secretary (O. Cochran, Esq.), Renfrew Aerodrome, Renfrew.
- Herts and Essex Aeroplane Club:** Broxbourne. The Secretary (F. E. Darlow, Esq.), 27 Cavendish Avenue, Woodford, Essex.
- Cinque Ports Flying Club:** The Manager (W. E. Davies), Lympne Airport, Lympne, Kent.
- Liverpool and District Aero Club:** Hooton Park, Cheshire, and Liverpool Airport. The Secretary (Major J. P. Nickalls, Liverpool Airport, Liverpool 19).
- South Coast Flying Club:** The Secretary, Shoreham Airport, Shoreham, Sussex.
- Northamptonshire Aero Club:** The Manager, Sywell Aerodrome, Northampton.
- Leicestershire Aero Club:** Leicester Municipal Aerodrome, Braunstone. The Hon. Secretary (D. D. Longmore, Esq.), The Airport, Leicester.
- Ipswich Aero Club:** The Secretary, Ipswich Airport, Ipswich, Suffolk.
- Brooklands Flying Club:** The Managing Director (H. Duncan Davies, A.F.C.), Brooklands Aerodrome, Weybridge, Surrey.
- Cardiff Aeroplane Club:** The Secretary (Arthur S. Davies, Esq.), East Moors, Cardiff.
- York County Aviation Club:** Hon. Secretary, The Aerodrome, Sherburn-in-Elmet, Yorkshire.
- Yorkshire Aeroplane Club:** The Manager and Pilot-in-Charge, Yeadon Aerodrome, nr. Leeds, Yorkshire.
- Tollerton Aero Club:** The Secretary, Tollerton Aerodrome, Nottingham.
- Hull Aero Club:** The Secretary, Municipal Airport, Hedon, Hull.
- North Staffordshire Aero Club:** Staffordshire Airplanes Ltd., Meir Aerodrome, Stoke-on-Trent.
- London Transport (Central Omnibus) Sports Association Flying Club:** Broxbourne Aerodrome, Nazeing, Essex. Hon. Secretary, A. Edgar Kefford, 88 Gladstone Avenue, Manor Park, E.12.
- Wiltshire Flying Club:** Wiltshire School of Flying Ltd., High Post Aerodrome, Middle Woodford, Salisbury, Wilts.
- Witney and Oxford Aero Club:** The Managing Director, Witney and Oxford Aero Club, Witney Aerodrome, Oxford.
- Cotswold Aero Club:** The Hon. Secretary: The Aerodrome, Cheltenham Road, Gloucester.
- Insurance Flying Club:** Hanworth Aerodrome. The Hon. Secretary, 54 Leadenhall Street, E.C.3.
- Cambridge Aero Club:** Newmarket Road, Cambridge. The Secretary, 18 Jesus Lane, Cambridge.
- Redhill Flying Club:** The Secretary, Redhill Aerodrome, Surrey.
- London Air Park Flying Club:** London Air Park, Feltham. The Secretary, 7 Park Lane, W.1.

Owing to lack of space we are unable to publish the full list in this issue, but the remainder will duly appear next month.

THE R.E. 8

BY
JAMES HAY STEVENS



DURING half the period of the Great War—from 1916 until the close of hostilities—the bulk of the Army co-operation work done by the Royal Flying Corps was performed by the R.E.8. If its appearance would lead the casual observer to consider it to be an apparatus conjured up by the powers of darkness, its early behaviour certainly did nothing towards correcting the impression. Owing to certain troubles with the fin area, wing section, and a heavy engine, it had a very vicious stall, inevitably followed by a spin, from which it was difficult to extricate it. Many pupils were killed trying to fly the early R.E.8. Later, when its troubles had been greatly remedied, it lost its mephistophelian reputation and, instead, gathered a more homely one as a buffoon—this was more or less unavoidable with its curious outlines, which were peculiarly lacking in grace, and the fortuitous resemblance which “R.E.8” bore to the name of that famous comedian, Harry Tate. The machine was almost universally known by this soubriquet, which was given added weight by that gentleman’s acts (such as the deck chair and motoring sketches) being so surprisingly pertinent.

The R.E.8 was one of a series of aeroplanes produced by the Royal Aircraft Factory at Farnborough for reconnaissance work. The initials stood for “Reconnaissance Experimental”; all R.A.F. aeroplanes were “Experimentals.” The reader will remember the others—F.E., B.E., and S.E. The first R.E. was built early in 1914 as a high-speed development of the B.E.2, and it looked like a B.E. save for single-bay wings, a semi-circular tail-plane and elevator, and an Avro-like rudder. The engine was a 70 h.p. vee-eight aircooled Renault, which made the machine fast for its day. Another early R.E. which gained considerable fame in 1914 was the fourth of the line. This aeroplane was of large span and was rather pleasing in shape, with a well-cowled 120 h.p. Austro-Daimler engine in its nose. Piloted by Mr. Norman Spratt, the R.E.4 set up a world’s height record. Of the other R.E.s only the R.E.5 and the R.E.7 (the latter a large, unequal span biplane fitted with such varied engines as the 150 h.p. R.A.F., 160 h.p. Beardmore, or 250 h.p. Rolls Royce), need be mentioned before proceeding with the subject of this article.

Wartime Practice.

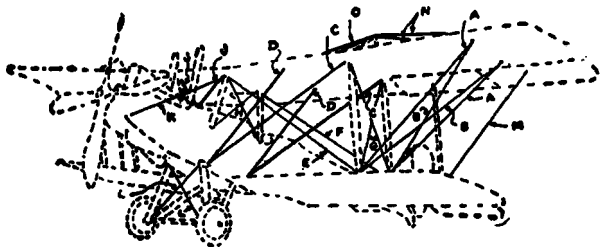
In construction, the R.E.8 was practically the same as the other R.A.F. aeroplanes, which in themselves were more or less typical of the general practice of the day. Spruce and ash were the timbers most generally used—ash for the more highly stressed members, engine bearers, longerons and the like; spruce for the lighter parts—fuselage, side struts, lattice ribs and interplane struts, which last, owing to their streamline shape, were of a large cross-section for the loads which they had to carry. The various struts composing the structure were braced internally and, in the case of the wings and tail unit, externally with a multiplicity of wires.

The wings of the R.E.8 were of very unequal span, with but a single pair of interplane struts on each side. The vast overhang of the upper planes was supported by landing wires from king posts over the interplane struts, and by flying wires from the lower ends of the interplane struts. Before proceeding with a description of the interplane wire bracing, the split ailerons on the upper planes have to be mentioned. Owing to the large, meagrely supported overhang, the ends of the upper planes, if they did not exactly wave in the breeze, certainly flexed considerably, and, to avoid the ailerons becoming jammed, the latter were made in two sections. The ailerons on the lower planes and the inner sections on the upper planes were connected by wooden struts; the outer sections on the upper planes were operated by wires. A point to remember when modelling is that the aileron cables ran *externally* from operating levers beneath the fuselage to points beneath the front interplane struts, and thence by pulleys through the wing to the tops of the aileron struts. The aileron balance cable joined the top ailerons on each side by means of fittings above the aileron strut attachments—the cable sagging cheerfully some six inches above the upper surface of the top centre section. The outer aileron sections were connected to the lower ends of the aileron struts by streamline wires. This all sounds very complicated, and, for the modeller’s benefit, a blue print of the general arrangement drawing (full scale) is supplied with each Skybird kit.

It would involve too many words, and in any case it

is almost impossible to describe lucidly the myriad wires required to brace the main planes, and for this reason we have included a diagrammatic sketch with an attached key. The upper and lower centre-sections were often covered with celluloid panels in order to improve the pilot's view.

BRACING WIRES.



| NAME. | DESCRIPTION. | INDEX LETTER. |
|------------------------------|----------------|---------------|
| Outer flying wires ... | Streamline ... | A |
| Outer cross flying wires ... | " ... | B |
| Inner flying wires ... | " (double) ... | C |
| Inter flying wires ... | " (double) ... | D |
| Front landing wires ... | Cable ... | E |
| Rear landing wires ... | Streamline ... | F |
| Incidence wires ... | " ... | G |
| C/S. incidence wires ... | " ... | H |
| C/S. cross bracing wires ... | " (double) ... | I |
| Drag wires ... | " ... | K |
| U/C. bracing wires ... | " ... | L |
| Aileron wire ... | " ... | M |
| Outward king post wires ... | " (double) ... | N |
| Inward king post wires ... | " (double) ... | O |

Fuselage Details.

Although the R.E.8 had an almost straight top line to the fuselage, the upward-sloping longerons created an optical illusion which made the machine appear to have a broken back. The fuselage was flat-sided and only slightly rounded on the top decking. Except for plywood stiffening round the gun ring and on the top decking in front of the pilot's cockpit and the metal cowling on the engine bay, the fuselage was entirely fabric covered. The pilot had a fairly full range of instruments, for which the wide fuselage supplied ample room on the instrument board. Protection from the elements was given by a long funnel-shaped windscreen, under which was mounted the compass. A synchronized Vickers gun was mounted externally on the port side of the fuselage. The observer was equipped with either one or two Lewis guns on a Scarff ring mounting. When engaged on photographic duties, a camera was fitted externally on the side of the fuselage. The engine, a 150 h.p. R.A.F. 4a, was mounted with a four degree upward thrust. This engine was an air-cooled vee-twelve and was, like the machine, a product of the Royal Aircraft Factory. The typical R.A.F. four-bladed airscrew, cooling air scoop, and chimney-like

exhausts, were very distinctive features of the aeroplane.

The tail unit was typical of the Farnborough designed aeroplanes. The tail-plane (which had a variable incidence gear for flying trim) and elevators were of very large area. The fin and rudder shapes and areas were subject to modification; that shown on the G.A. drawing is one version, and you may conceivably see photographs of others. The tail skid was steerable by means of cables from the rudder bar.

The undercarriage was the same as that on the B.E. machines—two plain wire-braced vees with a steel tube axle lashed to their apices by rubber cord. The fixed axle fairing acted as a spreader bar for the vees.

A Famous R.E. Pilot.

Despite certain deficiencies in performance and structural strength, the R.E.8 put in some extraordinarily fine work with the squadrons in France, and also as a general purposes machine in the Near East. It was during the active service life of the R.E.8 that an important change was made in the operation of artillery "shoots." In the early days, and up till 1916, the observer had maintained contact with the battery. In 1917 it was decided that the actual artillery observing should be done by the pilot, and that the observer should concentrate upon defence and general observation work. Whether this change was in part due to the R.E.8 being very stable—until she was actually stalled she could be flown "hands off" quite easily—I do not know. There is a perfectly authentic story of a R.E., in which both the pilot and observer had been killed, flying for some hours until its petrol was exhausted, and then landing more or less safely. That incident gave rise to some good ghost yarns in the messes on the Western Front!

A famous pilot not often connected with two-seaters, who flew both as an observer and, later, as a pilot in the R.E.8s of No. 15 Squadron, R.F.C., was Colonel (then Lieutenant) Barker, Canadian ace of fifty-four victories. A few details of one of the machines flown by Barker might be of interest to modellers. Painted the customary dark green, with clear doped cream-coloured under-surfaces, wings and fuselage painted with the tricolor cockades, and a red, white and blue rudder, the machine had the following special markings: Squadron marking, a white square on the sides and top of the fuselage, and the machine number, A 8598, painted in white on the fin. A particular marking of Barker's own was a skull and crossbones painted on the front of the engine cowling beneath the airscrew boss. This particular aeroplane is shown in the sketch which heads this article.

So much for a brief note on a veteran aeroplane which will be remembered with mixed feelings by all old pilots of the Wartime Corps Squadrons.

SKYBIRDS OVERSEAS

An enquiry comes from Rajkot, India, from Harsukhlal Avichal Sanghani, for the latest issue of THE AERO-MODELLER, which we have been pleased to send out, together with a back number of our original *Skybird Magazine*. We hope to hear of the modelling activities of our Indian friend.

* * *

From Singapore comes a request for particulars about the Skybird League, the writer, Mr. Thos. Morgan, giving as his address A. (S) Company, 1st Bn. Middlesex Regiment, Gillman Barracks, Singapore. S.S.

Correspondents Wanted.

We have had a letter from Associate Member William H. Holroyd, who is very keen to get into communication with Associate Members in South Africa, Australia, Canada, and any member in one of our island colonies. Any Skyleague in those parts of the British Empire who is keen to correspond on aviation matters with the home country should write to William H. Holroyd, c/o League Headquarters, and his letter will gladly be forwarded. We are sure that this opportunity will be taken advantage of overseas.

SUPER—SKYBIRDS

By District Commodore K. E. NICHOLLS

PART TWO

COMMENCE by having all the shaped and finished parts ready, together with a tube of cellulose glue, fairing paste, pliers, set-square and rule.

It is usual to fix the wing to the fuselage first; if a biplane, the lower wing. Glue alone is ordinarily strong enough for the joint, but on a large model, or one intended for use as a car mascot or similar purpose, use two rivet pins as well. These are almost headless nails, and will not show if filed slightly after knocking in. Small holes should be drilled for them first, however, to avoid splitting.

Check squareness to fuselage by placing the model over the plan view on the blue print, or use a set-square. See that the angle of incidence is correct, and also that the fuselage lies squarely on the wing when seen from the front.

When the joint has set hard, proceed to fair the wing to the fuselage. Of course, war-time types do not have to be faired in this way, and it is sufficient to fill in any slight cracks in the join and rub down.

Using the three-view plan, mark out the boundaries of the fairing on the wing and side of fuselage. The fairing is built up with plastic paste or plastic wood, applied in three or four layers. A thin diary pencil, previously wetted if using plastic wood, will enable you to "roll" the paste on to obtain a smooth rounded surface. Be sure to thin the paste out at the boundaries on fuselage and wing, and after each application trim "overhanging" material to these boundaries with a sharp razor blade. When using plastic wood speed is essential, as the material quickly hardens and refuses to shape.

A word on large fillets. On some aeroplanes (D.H. "Comet," Fairey "Battle," Supermarine "Spitfire," etc.), the fillets are very large, and extend a long way behind the trailing edge of the wing. When making fillets like these, some support must be given to the plastic material until it sets. Using the blue print, a tracing is made on grease-proof paper of the entire trailing edge of the fillet, and this is pasted in position to form a platform on which to build up the fairing, as already described. In a few cases the leading edges have to be similarly treated. When thoroughly dry, the fillet should be smoothed down with fine sandpaper and small round file, particular attention being paid to the edges. When finished, it is best to give the fillet two coats of clear cellulose to counteract any absorption.

The tail unit can now be added. Check squareness in plan and front elevation and adjust for any offset in the fin, then fair, if necessary, as for a wing. It is best, too, to add the tail wheel or skid at this stage, afterwards chipping off unwanted glue and cleaning up the whole empennage ready for painting.

The undercarriage is now tackled. On the earlier models with wire vees, the lengths of the compression legs and radius rods must be marked off along the vees, making small nicks with a triangular file, and bends made at these points where required. It is most important that the undercarriage struts enter the fuselage straight, i.e. without an unsightly bend just outside the hole. On the real aircraft the struts are usually bolted to

the longerons, and it is this effect you must reproduce. Where radius rods meet at the centre line of the fuselage, the hole has to be made slightly larger. Another case in which clean bends must be made is when pin axles are used. Hold the wheel hard against the head of the pin, and nick the pin with a file on the inside of the wheel before bending. A tip for cross-axle models. I, personally, am very averse to burring the ends of the axle to make the wheels stay on, and use the following method.

Cut a strip of typing paper, about $\frac{1}{2}$ in. long, the exact width of the measurement between the vees (or track) and roll this tightly round a needle to form a tube. Glue the join with Durofix, and when dry flatten slightly to form a stream-shape. Glue the ends of two small pins and pin the wheels through the vees into the ends of the tube. A neat and correct axle is the result. Give the paper tube a coat of cellulose before painting the model. By the way, it is best to paint the wheels before assembling the undercarriage, not forgetting to touch up the pin heads afterwards.

Another method. On the "Camel" and "Nieuport Scout" aeroplanes, the axle was actually tied to the bottoms of the vees with rubber cord, which formed the shock-absorbers. I copied this by using plain vees instead of ones with loops, and tied the axle to them with brown cotton.

Now to deal with the top plane of a biplane model. I usually leave the centre-section struts uncut and use these to guide the wing into place. First make sure no holes are blocked with sawdust, glue, etc. Lay the top plane upside down on the table, and invert the model. Guide the long centre-section struts to the holes, and right the model, pressing the wing down gently and squarely until it is just above the interplane struts (previously glued into their holes). Glue the tops of these and guide them to the holes in the top plane. Press the plane until the correct gap is obtained, then check for squareness with the lower plane; also stagger, and leave to dry.

Clip off protruding ends of struts close to the wing and file the stubs with a fine file.

By the way, though this article does not deal with painting the model, it is best to paint the top of the fuselage (that is, the part under the centre-section), and the underside of the top wing, before assembling.

Complete the model by adding the radial engine (if any), and if a military model with a radial engine, see that the gun channels come opposite a gap between the cylinders. Add all details like horn balances, wireless aerial masts, pitot tube, aileron control levers, flare brackets, etc. When everything is "on," go over the whole model and clean off unwanted glue before giving the final coat of cellulose.

If attention has been paid to the foregoing points throughout assembly, the model should emerge from the "paint shop" free from the ailments usually found in the tyro's first few models. I propose to devote a future article to methods of representing details on "Skybird" models—for it is detail which catches the eye of the competition judge!



SKYBIRD LEAGUE NEWS

NEW CLUBS

Since the last issue of *THE AERO-MODELLER*, the following new clubs have been registered in the Skybird League:

| | | | | | |
|------------------------------|-----|-----|-----|-----|-----|
| Birmingham | ... | ... | ... | ... | 515 |
| S. Kensington, London, S.W.7 | ... | ... | ... | ... | 516 |
| Southsea | ... | ... | ... | ... | 518 |
| Torquay | ... | ... | ... | ... | 517 |

ASSOCIATE MEMBERS (LATEST REGISTRATIONS).

District Commodores, Club Leaders and lone modellers can be put in touch with fellow members through Headquarters if a stamped addressed postcard or envelope is enclosed for reply. In all enquiries registered numbers must be quoted.

| |
|--|
| 1042. L. Woodcock, Bradford, Yorks. |
| 1043. W. V. Abraham, Dulwich, S.E.21. |
| 1044. J. M. Macdonald, Southwold, Suffolk. |
| 1045. D. Roxburgh, Knock, Belfast. |
| 1046. E. A. Macfarlane, Hertford. |
| 1047. J. A. Axon, Oldham, Lancs. |
| 1048. K. E. Curtis, Nerbury, S.W.16. |
| 1049. I. M. Fraser, Leigh. |
| 1050. E. D. Ward, Lewisham, S.E.13. |
| 1051. D. Campbell, Sawren Walden. |
| 1052. S. A. Lovett, Banstead, Surrey. |

District Commodore Appointments.

Scotland has a long reputation for supplying leaders of men. There is, however, a vacancy in leadership that she is not yet filling. Although there are many active Skyleaguers across the Border, particularly in Glasgow and Edinburgh, there is no District Commodore. There is plenty of scope for this rank, especially for the two centres mentioned. Will any Club Leader or other enthusiastic members who would be willing to undertake the office of D/C kindly apply to Headquarters for the necessary papers?

This also applies to other districts—will our readers please note?

Haileybury Sends a New Member.

We are very glad to welcome as an Associate Member (No. 1046) R. A. Macfarlane, who is up at Haileybury College, Hertford. In his love for aircraft R.A.M. is following a family tradition, for his father is a Wing Commander, R.A.F., which no doubt gives him more than the usual facilities for seeing the "real things." As R.A.M. is also interested in scale drawings we have placed him in touch with D/C Barnwell, of Alveston, Glos. Incidentally, he has completed 47 "Skybirds." A selection of his models were on view at their Speech Day Art Exhibition, and R.A.M. was besieged with questions.

"Skybirds" Leads Another Member to the R.A.F.

One of the many items of news that particularly gives us satisfaction to receive from time to time is as follows: "It may interest you to know that it was through making your aeroplanes that I became interested in flying, and I have now just completed my exams for the R.A.F. College, Cranwell." So writes Mr. J. E. Lambert, of Kensington. Heartiest congratulations, J.E.L. As "Skybirds" inspired you to this splendid career the League will always have a keen interest and regard for your progress.

An Award from H.Q.

Skyleaguer A. Buchan, of Hull, has been awarded a "Skybird" Certificate of Merit for a very excellent photograph submitted to H.Q. of a Supermarine "Spitfire" model, which he assembled and painted. Congratulations, A.B. We hope to see more of your good work.

Air-minded Tynemouth Scholars.

How gratifying it is to find the industry of our members, and the Skybird League itself, receiving increasing interest amongst the country's Press. One of the best of the summer Press reports was published in the *Shields Daily News* for June 21st, together with the very human photograph reproduced

on this page. We give a summary of this excellent article:—

"Several scholars of Tynemouth School, Tynemouth, are so keenly interested in aviation that they have formed themselves into a league of air-minded craftsmen. They adopted small-scale modelling as a hobby, and such was the popularity of this hobby that 13-year-old G. Whitfield became a member of the well-known Skybird League. His models were the envy of the school, and he entered his snub-nosed Bristol 'Fighter' in a 'Skybird' competition, and won first prize in an open competition for boys under 14 years.

"His enthusiasm spread quickly and he founded a branch of the Skybird League. The branch now holds regular meetings, and although teachers of the school are in no way connected with the movement, the educational value of the work is realised and appreciated. One of the main objects of the Skybird League is to inculcate a sound fundamental knowledge of aerodynamics through the medium of scale model aeroplane construction. Some idea of the progress that has been made by the boys was forthcoming when the staff and scholars of the school were invited to examine a number of models they have constructed. 'Planes built by the members occupied the spacious hangars, while others were preparing to 'take off.' Not a single detail is forgotten. Incidentally, an excellent model of Gatwick Airport, presented to G. Whitfield by Messrs. Airport Ltd., Gatwick Airport, for his competition success, was also on view."



Photograph by courtesy of The Shields Daily News.
Skyleaguer G. Whitfield, of Tynemouth School, showing two keen friends the "Skybird" model which won him first prize in an open competition for boys under 14.

Activity in Torquay.

We are looking forward to registering a new club in Torquay, Devon, shortly. An interesting letter from Mr. G. Goff, of that famous resort, gives an indication of healthy activity in "Skybird" modelling. He has applied for the necessary details from H.Q. to form a club, and adds that he and D. Greenslade have been in contact for many years, and constructed many "Skybirds" between them. They started modelling on "Skybirds" and are still making them. They made contact with D. W. Bullocke, of the Royal Garage House, some months ago and started him on "Skybirds." Now he is manufacturing them faster than Fairey Ltd. can produce their "Battles." The fourth member, we understand, is K. Hoskin, of Sherwell Valley Road, who has made many "Skybird" models. We wish them success and good modelling.

A Show at School.

Skyleaguer R. Sharp, of Woodford Green, is another of those fortunate modellers whose hobby is encouraged at school. He tells us that he had received permission with two friends to give a display of "Skybirds" at their school on Visitation Day. His collection now totals 28.

Quick Progress.

"I only heard of 'Skybirds' a few months ago, and with great temerity I purchased a 'Hart,'" writes A. J. Davidson, of Aberdeen. "This first endeavour at modelling was not a great success, but I persevered and I have to-day 26 'Skybirds.'"

Congratulations, A.J.D., whom we hope to register as a Skyleaguer shortly. He visited Montrose Aerodrome, where he found that his knowledge of "Skybirds" helped him to identify the different types of R.A.F. machines, and thereby increased his interest.

Huddersfield Unairminded?

We like the undaunted spirit that so many Skyleaguers innocently reveal. Consider this as an example: "Every member is doing his best to encourage friends to become new members, but Huddersfield seems to be very unairminded, which outlook and opinion we hope to change." That paragraph is extracted from a letter from Leader G. Horsfall, of Club No. 506 (Huddersfield). We admire the determination of G.H. and his fellow Skyleaguers, and we trust that by now they have found a suitable place for a club-room. We hope, too, that Roger Booth, one of their latest members, has fully recovered from his illness.

Taking a Cue from Hendon.

The dazzle effect of a Fairey "Battle" which took part in the Headquarters race at Hendon appealed to Skyleaguer G. Barnett, of Loughton, and he has painted his own "Battle" in a similar style. We agree, from the excellent drawing he has sent us, that the result is very effective. This Skyleaguer finds that his "Skybird" badge causes much curiosity at his school. He is usually asked to identify any aeroplane that passes over his school and answer aeronautical problems. A nice compliment, G.B. As this Skyleaguer has been unable to form a club in Loughton, and is anxious to join one, we have put him in touch with District Commodore E. M. Allies.

A Letter from Paris.

Skyleaguer J. Scrope (Associate Member 133) sends us a most interesting letter from France. At Orly Aerodrome he witnessed the arrival of about 250 machines for the Exposition Rally, amongst which were about a dozen of English manufacture, including a Miles "Hawk Major" without any "trousers." The fly-past was a wonderful spectacle, as about 200 machines took part, including 100 Dewoitines, one of which developed engine trouble at an awkward moment and had to land in the river to avoid the crowd. The plucky pilot was fortunately not hurt. Skyleaguer Scrope adds that model aircraft were displayed in most of the pavilions at the Exposition, and there was a full-sized "Gull," namely G.-ADZO. The rest of the Skyleaguer's letter shows that he missed nothing aeronautical during his visit.

A Progressive Club.

A good report concerning Club No. 500 comes from Skyleaguer J. A. Watson, of Hampstead. The club possesses about seventy models and has several more, including the "S.P.A.D." and "Spitfire" in the offing. They have added another "Battle" and a "Hendon" to the fleet lately, which makes two "Battles" and two "Hendons." The club is thinking of purchasing films and cameras to snap their models. A good idea, 500. And congratulations, Skyleaguer Watson, on the new member. There is obviously plenty of enthusiasm behind this club. When that camera gets going we hope some results will appear in THE AERO-MODELLER.

From Thornaby-on-Tees.

We are happy to hear of a new "Skybird" enthusiast who hails from Thornaby-on-Tees, in Yorkshire. He is R. Towers, who has "tried a 'Skybird' constructional kit and found

it quite easy to build." The result was a "delightful model." So he is anxious to learn all about the League. We hope to hear again from him. Meanwhile, good modelling, R.T.

"Spitfire" Popular at Farnborough.

From Farnborough, famous for its R.A.F. Experimental Station, we hear that every member of Club No. 516 has a "Spitfire." So writes Skyleaguer A. Halls, who, by the way, has passed on the leadership of the club to P. S. Hicks Beach, senior, as he commences the new term at Oundle. We hope, A.H., that we shall still be hearing of your "Skybird" activities. At the same time we welcome P. S. Hicks Beach as the new leader of No. 516. We have been promised a copy of the club's magazine.

Changes at Grimsby.

"It is with regret coupled with pride that I have to announce the resignation of Mr. T. Watt, who has gone the way of all flesh and joined the R.A.F." Thus is the opening sentence of a letter from Skyleaguer J. Channing, leader of Club No. 480 at Grimsby. But he is already filling the gap in his ranks in all probability with Associate Member N. Stevenson. He is keen to add a Flying Section to his club, and Headquarters has written to encourage him. It may mean enrolling more members, who would then turn to "Skybird" modelling, especially in the winter months. Incidentally, H.Q. has also written direct to Skyleaguer T. Watt to wish him success in the R.A.F., and invited him to become an Associate Member if his service allows him the opportunity of constructing models. He is now A.C.2 T. Watt, and stationed at Uxbridge.

News from Wimbledon.

This month's reports from Club Leaders are particularly heartening, for they nearly all say, "Our club is progressing." Club No. 497 (Wimbledon) is no exception to the rule, we are pleased to hear. Leader L. Forwood sends us a short but "meaty" report. They have their own magazine now; title, *The Aero Monthly*. A good tip comes from L.F. too. He finds that clothes pegs come in useful for keeping newly-stuck parts of models together. He is anxious to form a "B" flight, and all modellers in Wimbledon and district who are interested should get into touch with him at 29 Courthouse Villas, Wimbledon, S.W.19. This go-ahead leader has set the following intelligence test for the position of "A" flight leader and second-in-command:—

- (1) "Pretend you are a flight leader, describe a dog fight which took place over the lines during the Great War, in which you and your flight took part."
- (2) "Give all the details you know of the Fairey "Fantome.""
- (3) "What are the registration letters for these countries: Estonia, Columbia, Siam, Panama, Luxembourg, Mexico and Paraguay."

Club No. 508 (13th Squadron), Wandsworth.

Reporting on the School Exhibition held on July 16th and 17th, Leader Daniels states that there was no time to get the super R.A.F. 'drome finished, so a sand table was used in the Geography Room. The exhibition was divided into three parts: Civil, R.A.F. and a section showing fighting 'planes 1914-1936. The Supermarine "Spitfire" kit which the club won in the D/C's recent test was shown and a number of photographs. A complete civil aerodrome was laid out on a board, together with twelve "Skybirds" and a Miles "Hawk Major," made from odd pieces of wood by the leader of "C" Flight. The sand table was adapted as a temporary aerodrome in the desert, with a "Skybird" hangar and mess huts, while an oasis at the bottom of a hill revealed a crashed "Gauntlet." There were about eight planes on the aerodrome, and we can readily agree with Leader Daniels when he adds that "this aerodrome was undoubtedly the centre of attraction, owing mostly to its novelty." Congratulations to him and Club No. 508 on a very imaginative and creative exhibition. It deserved success.

Improved Modelling at Norwich.

We were sorry to learn from Skyleaguer Victor W. Jones, who leads Club No. 479 (Norwich), that he had "come off second best" in a collision with a lorry, which gave him a fractured right arm. We are now very glad to hear that he has recovered, and has got down to business again. Club affairs are steady at Norwich, and the members have been

going through a course in navigation. Modelling has improved, although there is perhaps a lack of finishing touch. But we know that practice will bring that along. The club held its first outing on July 10th with a visit to Great Yarmouth to see the aircraft carrier H.M.S. "Furious." The members are very keen on the forthcoming exhibition which is to be held in Norwich, and Victor Jones has talked matters over with District Commodores K. E. Nicholls and M. Kinchin Smith. The club also hopes to retain the Sykes Trophy in the East Anglian Skybird Rally and bag a few other prizes in the bargain. Good luck to 479.

Club 491 in Clover.

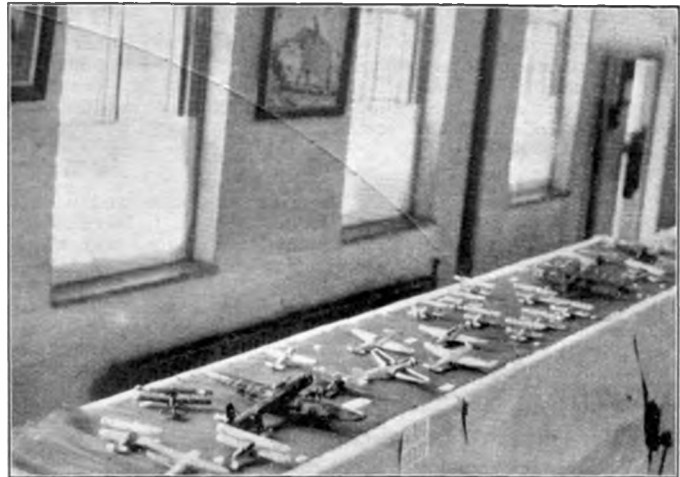
We are delighted to hear that the enthusiasm and push of Club Leader P. Went and the kind co-operation of Squadron Leader T. Warne-Browne have resulted in Club No. 491 taking possession of a hut for their modelling activities. Once a fortnight they will have the advantage of being assisted and supervised by an airman, himself a very keen modeller, in the model section workshops of the Station "Arts and Crafts." Members of the club have written essays on their visit to the Gosport Aerodrome on Empire Air Day, and the Squadron Leader kindly judged them, the results being:—1st, John Moore; 2nd, F. J. Walker; 3rd, M. Hale; 4th, L. Bevis. He has already been struck by the members' knowledge of aircraft types and their memory for details. Club No. 491 is certainly very fortunate in having the support of the Squadron Leader, and we are sure they all appreciate it.

Display at Middleton-on-Sea.

A very successful display has been held by Club No. 451 (Middleton-on-Sea). No less a sum than 15s. 4½d. was taken at the "box office," Leader P. Maynard informs us, although he adds that "a question arose about the ½d." The weather was fine, the windily nearly absent, so that the aircraft suspended over the 'drome did not wobble about. The fine and numerous array of models included modern and wartime types, while amongst the civil machines were the Mount Everest Expedition's "Wallace," a "Seagrave" and an "Atalanta." From the leader's report we gather that there were 52 modern military types, 49 wartime types and 20 civil types. Incidentally, Leader Maynard is interested in painting white numbers under the "Battle's" wings, and to assist him H.Q. advises him to fix the ordinary black transfer first and then paint over with white paint. If poster colour is used this can be washed off if a mistake is made and the job started afresh. When the paint is dry it will be necessary to apply a protective covering of varnish (as supplied with the new painting set) or clear cellulose. Otherwise the paint will rub off easily and spoil the work.

Exhibition at Whitley Bay.

The fourth annual exhibition of the Park School Model Club (No. 314) at Whitley Bay was held in July with great success. "Skybirds" played no small part in it," writes Sky-leaguer N. J. Campbell, their leader and organiser. About forty "Skybird" models were entered by the various clubs in the district, and were of such a high standard that the judging, carried out by N.J.C. and Sky-leaguer George Riding, proved very difficult. The special award of merit for the best model went to Basil Taylor (Club No. 314), who had four "Skybirds" on view besides other models. In the open "Skybird" competition the junior prize was won by Associate Member Alan Brown, and in the senior class Club No. 440 took first and second place through Harold Reid and George Taylor. The prizes, which were presented by the Park School Model Club, valued 10s., and in addition, the local "Skybird" agent, Mr. T. T. Ford, presented a "Shark" kit. Further prizes out of club funds included in the exhibition awards were three "Skybird" kits and two "Shipseries" kits. Mr. J. H. Stevens' popular book "Scale Model Aircraft" was also a prize. Sky-leaguer Campbell is to be congratulated on his splendid work. The exhibition won an excellent Press notice, which mentioned that all the "Skybird" models were built to scale, so that visitors were able to appreciate the difference in the sizes of the various types; and that Mr. N. J. Campbell, who is the school woodwork instructor, showed his "Skybird" model with which he recently won the international "Skybird" competition. A good impression of the lay-out of the models is obtained from the illustration on this page.



Exhibition of Skybird models by Club No. 314 (Park Senior School, Whitley Bay).

HAPPY ENDINGS

"Yours till a 'Fighter' throws a 'Gauntlet' at a 'Gladiator' and breaks his 'Hart.'"—H. F. Treves, London.

"Yours till I drop anchor."

—G. C. COTTON.

"Yours till my 'Shark' 'Battles' with a 'Gull' watching a 'Dragon' 'Spitfire' at a 'Seal.'"—P. MAYNARD.

"Yours till the 'Comet' loses its tail."

—RAYMOND E. EDWARDS.

"Yours till a 'Vildebeeste' begins to 'Spitfire.'"—K. ROBERTS.

"Yours till a 'Shark' has a 'Battle' with a 'Swordfish.'"—A. BOWYER.

NAUTICAL NOTES AND SHIPSERIES MODELLING

From Skybirds to Shipseries.

Sky-leaguer G. C. Cotton, who has been an active member of both the Skybird and Shipseries Clubs, has now left school, and he informs us of the interesting news that as ships are his primary hobby he is going to devote his time to the Shipseries League. He would like to see the League achieve more prominence, for as he rightly declares, although we have aircraft our country still depends upon the sea. In particular he would like to see Shipseries models of the "Bremen," "Strathmore" and "Orion." We have no doubt that in time Sky-leaguer Cotton will meet with his desires.

Shipseries for Melbourne.

Nautical modellers will be interested to know that Shipseries models to represent the Spithead Coronation Naval Review have been dispatched to Melbourne, Australia, for an exhibition.

Navy Week.

Needless to say, Shipseries played their part in Navy Week. At Chatham and Portsmouth the models were on sale, and those at Chatham were utilised to demonstrate a convoy and other naval manoeuvres. Here, incidentally, it would be fitting for Skybirds to co-operate with the Shipseries, for even during the Great War of 1914-1918 naval convoys were usually escorted by seaplane, flying boats, blimps and occasionally aeroplanes until they had passed into the open sea.

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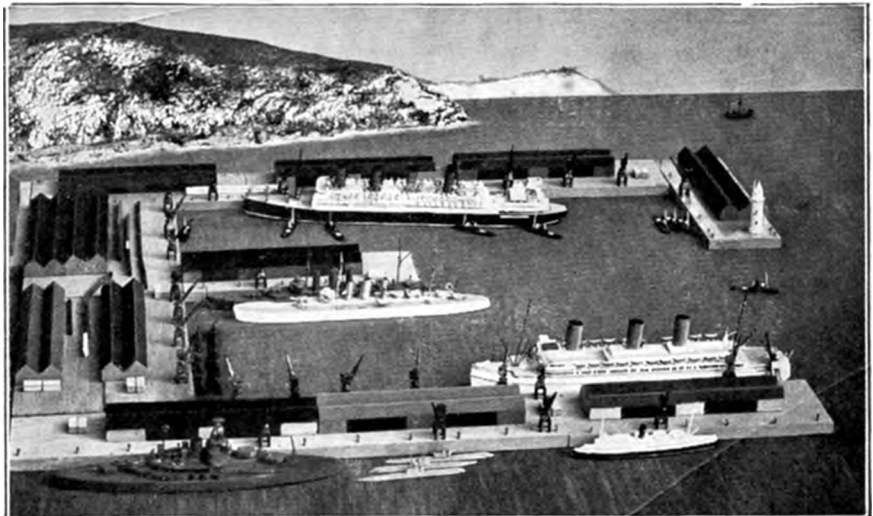
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| No. | Ships of the Royal Navy. | Sets. | Assembled and Painted. |
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| 1. | "Hood" | 3/6 | 7/6 each. |
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| 3. | "ROYAL SOVEREIGN" (class) | 2/8 | 6/- " |
| 4. | "COUBAGEOUS" (class) Aircraft Carrier | 2/6 | 6/- " |
| 5. | FLOTILLA LEADER "BRUCE" (class) 2 in box | 2/- | 5/- pair. |
| 6. | "IRON DUKE" (class) | 2/6 | 6/- each. |
| 8. | "LONDON" (class) Cruiser | 2/- | 5/- " |
| 7. | R.M.S. "EMPERESS OF BRITAIN" | 4/6 | 12/6 each. |
| 9. | R.M.S. "AQUITANIA" | 5/- | 15/6 " |
| 10. | R.M.S. "QUEEN MARY" | 5/- | 15/6 " |

SERIES "E." ACCESSORIES.

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| 20. | Battleship Grey Paint (flat finish) | (per pot) | 4d. |
| 21. | Shipperseries Painting Outfit, Six Poster Colours and Brush | 2/- | |
| 14. | Printed Slip (lounge deck windows, etc.) | (each) | 1d. |
| 15. | Rocks (Strongcrete) Painted, small size | 4d. | |
| 17. | large size | 9d. | |
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| 18b. | ditto with Promontory and Lighthouse | 2/- | |
| 19. | Alum Bay and Needles Rocks (4-piece set) | 7/6 | |
| 23. | Display Set—7 cast models, Ships of the Royal Navy | 2/6 | |

| | | |
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| No. 24. | Ditto, 6 cast models, Ships of the Merchant Navy | 2/6 |
| 0. | Docks (in six sections) each section complete with Wharf, Shed and three Cranes ... (per set) | 6/- |
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| 8. | Guns, 4.7 Destroyer type | 4d. |
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| | Grumman | 3d. |

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| | N.A.C.A. cowlings for:—Bristol, Armstrong Siddeley, Pratt and Whitney, or Wright Motors | 2d. |
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| 47. | Gordon Exhaust Pipe | 1d. |
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| D. | Gauntlet | 2d. |
| E. | Wartime Camel, SE5 Nieuport | 2d. |
| F. | Fury, Hart | 2d. |
| G. | Phoenix | 2d. |
| H. | Bristol Fighter | 2d. |
| I. | Shark | 3d. |
| J. | Heinkel | 3d. |
| K. | Spitfire | 3d. |
| L. | Grumman | 2d. |

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| R. | Gipsy Camel | all 1d. each |
| S. | Camel | |
| T. | Electra | |
| U. | DH4 | |
| V. | Fury | |
| W. | L.V.G. CV. | |
| X. | W. Wallace | |
| Y. | Gordon, Seal | |
| Z. | S.E.5 | |

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| 40. | Spat on Pin | 1d. |
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| 5 | Sopwith "Camel" | 4½" | 2/- | 6/- |
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| 13b | Bristol 188a | 11" | 5/- | 12/6 |
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