AERO MODELLER

OCTOBER - - 1939
Vol. IV No. 47
PRICE - - SIXPENCE

FULLY ILLUSTRATED REPORT OF WAKEFIELD CUP AND MANY OTHER COMPETITIONS

ENTRY FORM FOR PHOTOGRAPHIC COMPETITION IN THIS ISSUE

THE AERO-MODELLER

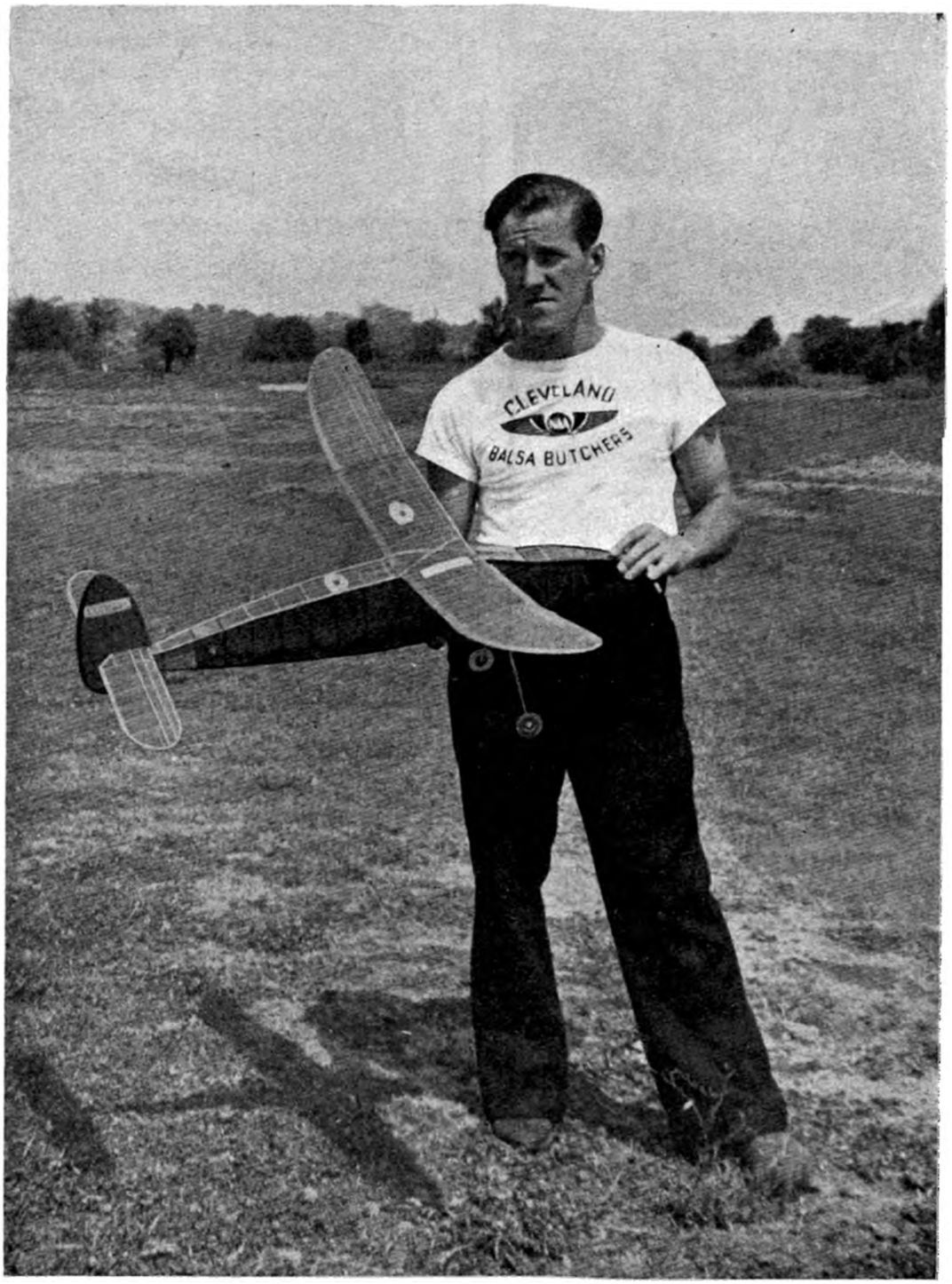
ALLEN HOUSE
NEWARKE STREET, LEICESTER

Phone: LEICESTER 65322

VOL. IV. No. 47. OCTOBER, 1939

CONTENTS

1939 WAKEFIELD CUP WINNER—



DICK KORDA

Our front cover photo shows Dick Korda receiving congratulations from Bernard McFadden, who organised the meeting.

OCTOBER - 1939
Vol. IV. - No. 47

Tel. Leicester 65322

The AERO MODELLER

INCORPORATING THE "MODEL AEROPLANE CONSTRUCTOR"

EDITORIAL

AST month we quoted from a letter we had received from Herr Paul Schroter, leader of the King Peter Cup team from Germany. Herr Schroter wrote to express his pleasure at the response he had received to his suggestion that English aero-modellers should correspond with German aero-modellers . . . and now some of them will be directing their energies in *other* directions. Yes, it's a topsy-turvy world, and one wonders where it will all end. Some of our readers are probably wondering where aero-modelling will end, or if this *is* the end of aero-modelling.

We can assure them very definitely that it is *not* the end of aero-modelling in this or any other country, and that whilst rallies and outdoor meetings must, for the time being, be postponed, indoor meetings, lectures and other winter activities of a local nature will certainly be carried on. We hear of one or two clubs which appear to have " panicked," and immediately closed down, but except for these the general feeling is that whilst large-scale activities must be suspended, that is all that will be necessary.

With this feeling we are in complete agreement. The hobby is now too well developed and established throughout the country to suffer a complete " defeat " . . . and would aero-modellers admit to this because of Hitlerism? Surely the answer is a determined " NO."

* * * * *

As to the international situation we have no comment to offer. The only Germans we have met—or men of other nationalities for that matter, have been *aero-modellers* . . . and to us they will continue to be aero-modellers, and we shall think of them in no other way. With this sentiment, coupled with the hope that in due course we shall all meet again on the field of International Model Flying, we take leave of our readers to dismiss this sorry business from our pages.

* * * * *

Of course, just as the large daily papers have had to reduce their number of pages, so have we been compelled to reduce the size of THE AERO-MODELLER for this issue. This is mainly a precautionary measure, until we see what stocks and supplies of paper are available. For the same reason we have held over the " Buyer's Guide " which we planned to present with this issue. Readers will please note that we have *cancelled* nothing. We have postponed, that is all, just until the country has had time to adjust itself to the new conditions. Next month's issue will contain several special features, not the least of which will be a fully illustrated article by Mr. H. J. Towner on his magnificent 1 in. scale Airspeed " Envoy." And, as usual, there will be a plan given away free; this time a fine blue-print of the Miles " Magister," with every part fully detailed in full size, for building a solid scale model of this R.A.F. trainer.

Probably a few of our readers will obtain their copy of this issue a day or two late, due to the limited rail service available for newspaper distribution. If any difficulty is encountered in obtaining a copy after September 25th will readers kindly notify us? It will be a great help if orders for regular delivery are placed in as many cases as possible, so as to avoid unnecessary distribution of extra copies. We would draw the attention of all readers to the entrance form for our photographic competition, which is printed on the back inside cover page of this issue. The three coupons taken from our July, August and September issues must be attached in the appropriate spaces provided on the entry form, which must then be posted to our Leicester offices to reach us not later than first post on September 30th. Full results will be published in our November issue.

* * * * *

Following this Editorial appears our Wakefield report. We congratulate Messrs. Stott and Lees on their work in compiling it, and especially on the photographs they obtained. We feel sure that our readers will appreciate the excellent photos of Dick Korda and his model . . . and do we go to America again next year?

* * * * *

Whilst we understand from the trade that there are good supplies of all accessories in the country, we advise readers to make up their stocks for their winter building at an early date. Many of our advertisers have recently issued new catalogues, and readers should obtain copies as soon as possible and make their choice from the wide range of models and kits available.

THE EDITOR.

WAKEFIELD CUP

On left we show Len Stott's model, "Flying Minutes," taking off, and on right Bob Copland's model just getting away. Below is Dick Korda's model taking off on its winning flight.

GOOD-BYE and good luck! With all the best wishes for a successful and happy trip, the 1939 British Wakefield Cup Team left Waterloo via Southampton for New York, on Wednesday, July 26th.

Mrs. Thurston, who had made a special journey in order to see the team off, presented each member with a red carnation and a black cat mascot for luck. There was also a good crowd of photographers and well-wishers.

The boys were all feeling very fit and looked exceptionally smart in their new S.M.A.E. blazers.

At Southampton the team had to face another battery of Press cameras, and an old north country friend, Joe Kenworthy, was present to see them off.

The voyage was uneventful, the weather improving, and as we neared New York the temperature soared up towards the 100 mark and we realised that our greatest problem would come from this direction.

This was evident from the great amount of time the boys spent down below in sweltering heat, prewinding and testing their rubber. A torque-testing device was made by Messrs Copland and Faulkner, and many interesting curves were plotted from the figures obtained.

The officers on board the Aquitania expressed a desire to see our models so we arranged an exhibition in the writing room. They were keenly interested and spent an hour examining them. In return they arranged for us to be conducted on a tour of the ship's engine room, etc., an offer of which we took full advantage, and had a most enjoyable time below decks.

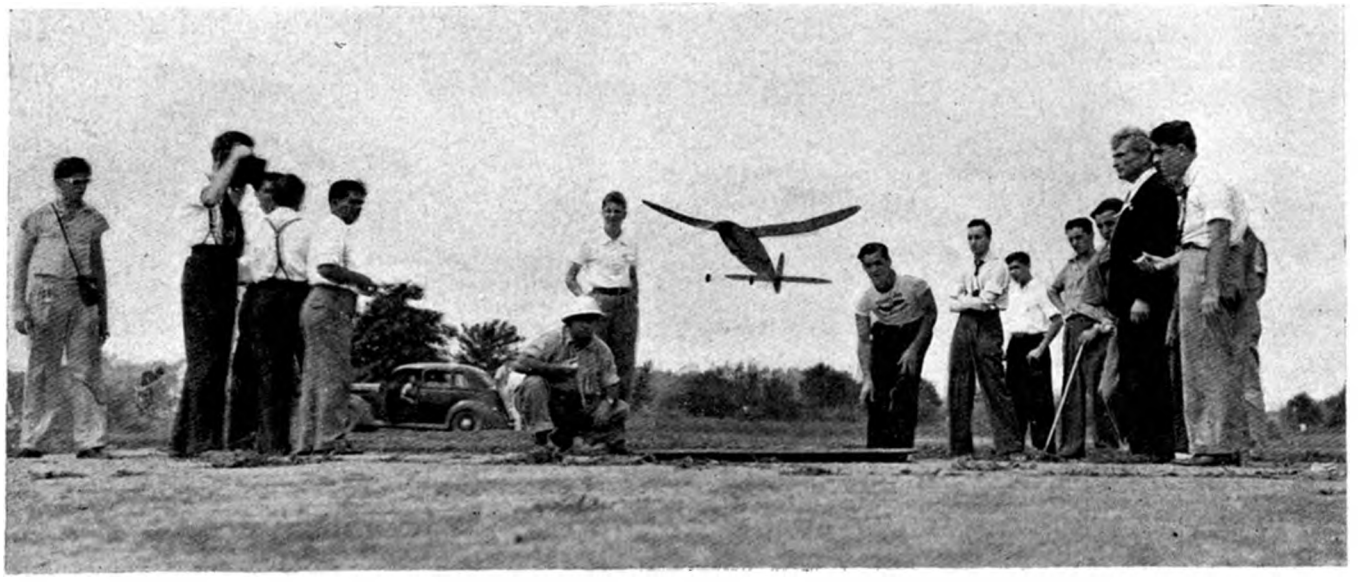
We arrived in New York on Tuesday, August 1st, and were met by the organisers of the contest, Irwin and Nat Polk, also by our old friend Frank Zaic, Mr. Lieu, Henry Moller and others, who escorted us to the Hotel New Yorker where provisional bookings had been made.

This was indeed a huge hotel, and in fact it was one of the largest and tallest in New York, being forty storeys high, and containing 2,500 rooms.

From our windows on the 18th floor we had a magnificent view of the city and the Empire State Building, which is the tallest in the world.

We learnt on the Thursday morning that Irwin Polk had suddenly been taken ill and had to be rushed to hospital and have an operation for appendicitis. As he was chiefly responsible for the organisation of the affair his brother had to carry on. We hope that by the time we go to Press he will be well on the way to complete recovery.

As the organisers had arranged no official programme until Friday the 4th we spent the next few days in sight seeing accompanied by Frank Zaic and Henry Moller. During this period a visit was made to the New York World's Fair, the Empire State Buildings,



COMPETITION

Report by

LEN STOTT and NORMAN LEES

and other places of interest. Two days before the contest, Hill and Faulkner were taken ill with a form of 'flu. The doctor was called in and they were confined to bed. The rest of the party were put on an antiseptic gargle course as a precautionary measure. On Saturday morning, the day prior to the contest, arrangements had been made to take all the competitors out to the flying ground, which was about 15 miles out of New York.

On arrival at the proposed flying ground it was immediately seen this was far from ideal, and an inspection of the spot allocated for the contest proved this to be quite impossible as it was sandwiched between a dense wood and the airship hanger. The remainder of the airport was under long grass except for the runways used by the full-sized machines, which of course could not be made use of. The alternative to this was the golf course attached to the aerodrome, which was equally unsuitable owing to being studded with numerous trees and shrubs.

The officials accompanying the team protested strongly against the unsuitability of both sites, receiving full support from the British and American contestants, including the proxy flyers.

After considerable pressure the organisers made an attempt to fix up an alternative site, but due to lack of available time before the contest this effort was unsuccessful, and there was no alternative but to use one of the sites mentioned.

After a meeting of the contestants and officials it was decided the golf course possessed fewer disadvantages than the aerodrome. According to English standards even this ground would be considered unsuitable for an ordinary club competition, much less an international contest.

Whilst awaiting the return of the officials, the boys had a flip round the city in one of the " blimps." This was an interesting experience, each airship taking up six passengers for each flight.

The day was broiling hot and a few of the more adventurous American boys put on more turns than was wise whilst test flying, and a few machines were even lost to sight in the clouds. Apart from one model which was fortunately not in the competition, the others were returned. Later in the evening, as the temperature dropped a little, our own boys got out their models and were soon putting in some good practice.

It was evident that our methods and ideas were totally different to those of the Americans. They almost all favoured short, thick motors which literally tore the models up, whilst our boys had longer motors and a steadier climb.

Under these conditions the flights obtained by the English team showed up very favourably, and the Americans freely admitted their apprehension for the contest.

We returned to New York about seven-thirty, and were just in time to hear the weather forecast for Sunday. This was bad from our point of view—becoming warmer, calm at first, wind increasing later in the day. This proved itself to be an accurate forecast.

Later in the evening came the check-up and weigh-in of the models. This proved something of an ordeal, lasting until 2 a.m., with Messrs. Houlberg, Cosh, York, Faulkner and Lees doing yoeman service in various capacities, the latter working with his slide rule until he fell asleep.

Quite a number of foreign models did not comply with the Wakefield rules and required numerous alterations. Korda's, for instance, was underweight, the cross section of his fuselage was small and his tail area too large. To overcome these faults he had to make the necessary adjustments, and submit his model for another re-check in the morning.

The great day arrived, and before we left New York for the contest the temperature was almost 90 degrees, and on our arrival at the field it was stifling hot as there was no wind whatever. In fact it was a similar day to that experienced at Gouyancourt, in France, last year. A fly tent was erected by the English team to protect their models from the sun, and after another weigh-in, the contest was soon under way.

In the draw for positions, New Zealand was first, followed by America, Great Britain, France, Canada and South Africa. As the New Zealand entry was scratched, the first machine to take off was that of America's No. 1 man, Dick Korda.

With a great " zip " his machine took off and climbed almost vertically, in tight circles. It attained a good height under power, and, still rising, it was evident it had contacted a thermal. Within a few minutes it was over a thousand feet, and soaring up with each turn.

In the meantime, Charlie Gibson, flying proxy for Fred Almond, who unfortunately could not make the trip,

wound up for his first flight, but broke his motor with only three-quarters of the turns on. By the time N. Lees was called upon to wind up, Korda's time was announced over the microphone as 22 minutes, and still soaring round in circles, almost over the take-off board —a heartbreaking sight for us.

We realised we were up against it, and when Lees rubber broke, this was blow No. two with a vengeance.

As Pacham had his model ready, he went off No. 3, but unfortunately, his machine was faultily adjusted, and failed to rise above about 100 feet, his time being 82 seconds.

By this time Korda's machine was still up in sight, having clocked 34 minutes and broken Bob Copland's world record.

The Canadian entry of Fred Bowers had also connected a thermal, and turned in a flight of 12 minutes.

Things were certainly not going too well, and when Copland took off we were hoping for better things. His model, however, took a different direction to Korda's, and made a normal flight of 165·4 seconds. About this time, Korda's model began planing down, and eventually landed within half a mile of the field after a wonderful flight of 43 minutes 29 seconds.

Spurred on by this achievement, Len Stott began winding for his first flight, and consternation was pretty complete when his motor broke in the middle. This was a most unexpected blow as we had carried out exhaustive tests on our rubber prior to the competition, and could only be explained by the terrific heat of the day.

It was now the turn of Gibson and Hill, but they could do no more than 128 and 80 seconds respectively. The Frenchman, Giovanni, whose machine was being flown by Shoenbrum, had just clocked 9 minutes, the third best flight of the day.

Len Stott now took his first flight which was something of a gamble, due to the fact that the nose-former of his 'plane had been knocked out when his motor broke. Our luck was still out, however, his 'plane made a normal flight of 150·75 seconds, thermals at this time being conspicuous by their absence.

A break was made for lunch, but this was brief, and the contest was soon on its way again.

Our greatest blow came now; a stiff breeze sprang up and the sky became overcast. It was obvious that it was impossible to improve on Korda's time. In fact, the Americans were so sure of victory that Korda was freely photographed with the cup—this before the second and third flights were made.

Copland made the best flight of the second round with 308·5 seconds, followed by Stott with 211·5 seconds.

The times generally decreased as the day wore on and the best flight in the last round was 195·4 seconds by N. Lees.

From the foregoing it can be plainly seen the contest was over after the first flight.

Once again the Wakefield Cup had been won by one outstanding thermal flight, and whilst not in the least begrudging the Americans their victory, one was left with a feeling of dissatisfaction that this trophy should be won in this manner.

There were showers of congratulations for Dick Korda, who is one of the best, and has been consistently successful for many years.

We attended a banquet on Monday evening at the Hotel Ambassadors, where the prize-giving took place. Bernard Macfadden presented the trophy to Korda and also handed over a cheque for 250 dollars to be distributed amongst the American team. There were many notable people present, including representatives of the Air Force, Navy, American Airlines, and Lord Wakefield's American representative, Mr. Hughes.

On Monday morning both teams were conveyed in a bus to American Airlines, in Newark, New Jersey, and had a very enjoyable trip in an airliner. This lasted an hour and we were permitted to visit the cock-pit in threes and watch the ship being controlled by the two pilots.

From here we visited the Kresge Store, in Newark, where we had lunch, and were appointed members of the Kresge Aero Club. The numerous speeches after lunch were very interesting, and Casey Jones, who runs an aeronautical training school invited us to have a look round his school. The leaders of each team were presented with Standard petrol engines.

Tuesday was spent in another visit to the World's Fair, and after lunch we called at Forest Hills and were introduced to Mayor La Guardia.

We left New York on the " Queen Mary " on Wednesday noon, and by this time were ready for a little relaxation. The crossing was most enjoyable, and as we neared England we began to feel more normal—and considerably cooler.

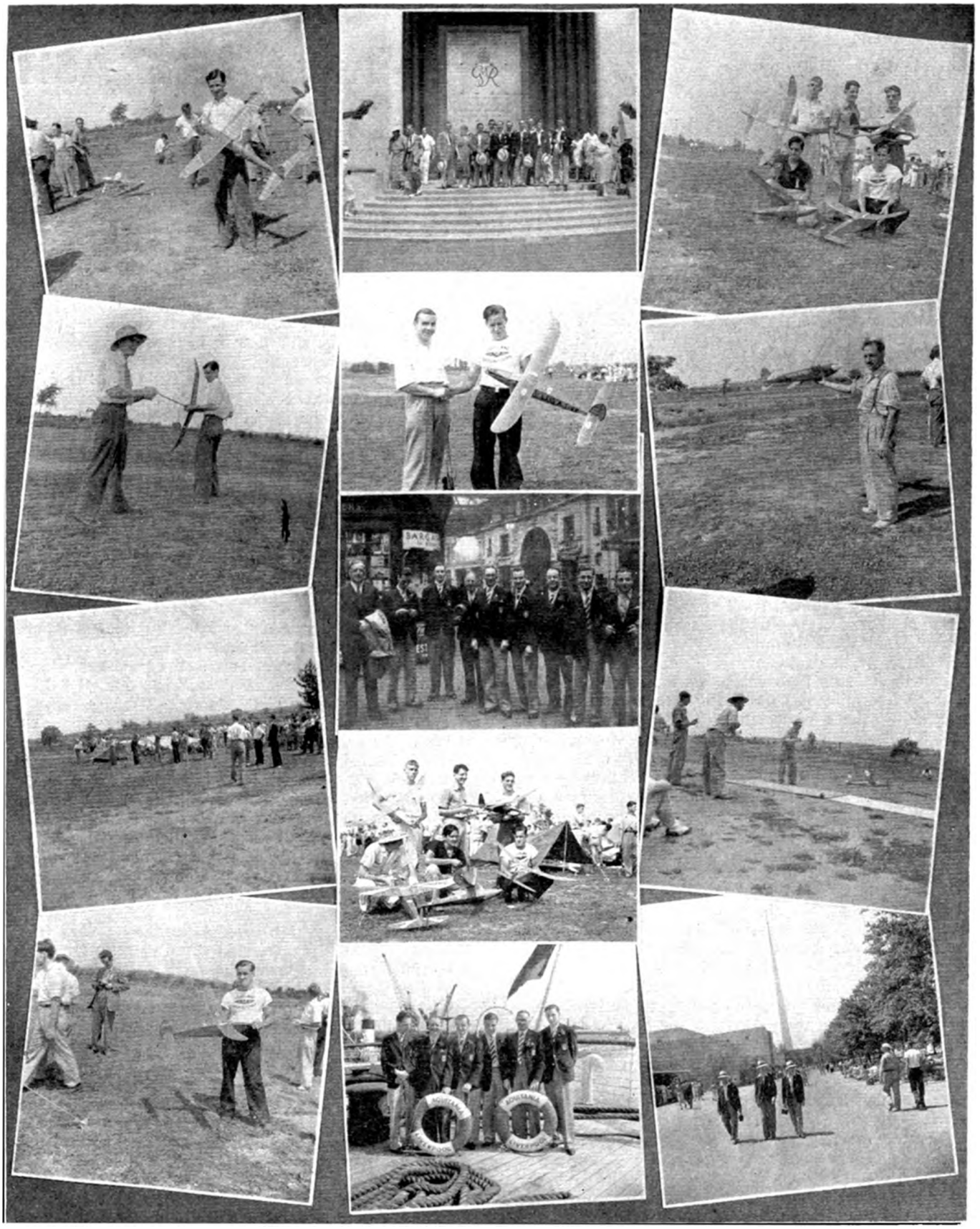
The Wakefield was again over, and though we had gained no honours on the field, we were far the richer in experience. The lessons we learned should be of great value to the team who will compete for the trophy in 1940.

WAKEFIELD INTERNATIONAL CONTEST, 1939

HELD IN NEW YORK, U.S.A.

Dick Korda (United States)	950·2
Fred Bowers (Canada)	272·66
M. Giovanni (France)	217·53
Robert Copland (England)	211·3
Norman Lees (England)	168·87
Robert Chaillie (United States)	159·88
Leonard Stott (England)	152·41
Levalle Walters (Canada)	150·88
Vincre (France)	126·33
Edward S. Booth (Canada)	125·86
Charles Gibson (England)	98·1
Reg. Parham (England)	98·0
Tournadre (France)	96·94
Chabot (France)	90·03
Phil Dalgetz (South Africa)	88·88
Ralph Baker (United States)	81·8
Chinaud (France)	64·66
Ronald Hill (England)	64·66
Ted Foti (South Africa)	59·58
James Thames (United States)	58·58
Barthelmy (France)	57·01
Spango (South Africa)	54·78
R. B. Leslie (South Africa)	45·88
J. Bohash (United States)	41·63
J. Dilly (Canada)	31·23
P. A. Connoly (South Africa)	30·5
Roy Nelder (Canada)	24·16
Earl Stahl (United States)	20·3
Endean (South Africa)	4·0

WAKEFIELD PHOTOS—



THE OAK —— —— AND THE ASH

By ARTHUR MOUNTSTEPHENS

" He pointed to a hefty replica of a ham roll, several of which he had gorged during the afternoon."

ONE side of our flying ground is bordered by avenues of trees which are the envy of other towns. It is said that every known British species and every known imported species of tree dwells somewhere in that noble colonnade. Arboriculturally, of course, that's fine. Aeronautically, it's rotten.

Our chaps have suffered much over those trees. Models have an irresistible attraction for them, and frequently a fir will make a cradle for some beloved biplane, or an oak a devastating buffer for the yielding balsa.

Latish one evening, Job and I watched his model make a bee-line in the direction of danger. With our hearts in our mouths we saw it shoot obligingly between two trees, and, turning left, skirt the trees on the other side. In due course it doubled back between two other trees, and we thought all would be well until it turned left again and gave us another anxious fifteen seconds.

" That's that," said Job.

That was that, for the 'plane, tired of the adventure, dashed into the branches of a huge tree and hung limply from the foliage. We walked towards it and found that the model had become pretty well embedded in the foliage. Fortunately, there appeared to be no kiddies about, and we went quickly to the farmhouse where we kept our poles used on these occasions. On our way, Job discussed trees.

We were back in less than fifteen minutes, making our way to the tree which both of us considered to be the culprit. We stood beneath it and peered into the dusky foliage. It was a particularly thick and savage-looking specimen of an oak that frowned upon us in the dull light of a cloudy sunset. Job's model was nowhere to be seen.

" Perhaps we've made a mistake in the tree," said Job.

There are a lot of oaks in the avenue, all very similar, so, walking to the right, we examined the other trees, but still did not see anything of the aeroplane. Coming back to the original tree, Job gazed at the ground thoughtfully.

" I'm sure this was the one," he said at last. " There's that piece of ham roll I dropped when we were looking at the model." He pointed to a hefty replica of a ham roll, several of which he had gorged during the afternoon.

But I wasn't at all satisfied about that, knowing Job as I do. When he gets excited over a model in danger, the field would be strewn with ham rolls, provided he had enough to go round.

I walked away from the trees a little, and with Job following, proceeded to the left, where a short distance away we spotted the model hanging from the branches of an ash. We helped it out with our poles.

I said, "This beats me. I'm pretty certain it pitched in an oak, but when we get back here again it's in an ash."

Job, not knowing the difference between an oak and an ash, merely grunted. He was quite satisfied, having recovered the model. There was no mystery at all, so far as he was concerned.

" I'm not quite sure," he admitted, " just where I did drop that ham roll."

He picked up a twig and a few odd pieces of foliage from the model and handed them to me.

" Well, I thought it was an oak," I persisted.

" Well, it don't matter, anyway," he said. " I don't want to know anything about trees. I've seen enough of 'em."

With that we went, and after saying goodnight to my friend I walked towards the moors. My wife happened to be away and I did not desire to get back too early.

It was after fifteen minutes solitude that I became aware of two things. One was that I was still carrying the foliage with which Job had presented me. The other, more interesting, was the fact that my hand was toying with something soft and smooth and round, not much bigger than a marble. I looked at it. It was an oak-apple.

If Job had been with me then, I should have said, " There you are. I knew it was an oak." To which Job would have no doubt answered, " Rubbish. I've seen those little round things on all kinds of trees."

Of course, an oak-apple might have become lodged in the ash, and I should have mentally accepted that theory had I not been certain from the first that the model had landed in an oak. I was curious. The 'plane had landed in an oak and we had pulled it from an ash.

For the want of anything better to do, I walked back to our field once more. Not that I expected to find anything really, but I could at least make another examination of the place and see if I could find some solution to the mystery.

Pausing once more beneath the oak, which I at once identified by the ham roll still lying there, I looked up

into the branches. I did not expect to see anything. Certainly I did not expect to hear anything. But I did hear something. It was a slight cough and something resembling a sob which came from the branches.

" Hi ! " I shouted.

There was an immediate response. " Oh ! Sir, I'm glad you've come back."

It was Amos, Job's son.

" Whatever are you doing up there? " I asked.

" I can't come down."

" Can't what? Anyway what are you doing up there? "

" I was walking along and I saw an aeroplane up here, and I shinned up and shook the branches, and it fell out and flew off and I don't know where it has gone off to."

" Well," I said, " why didn't you come down after? "

" I can't. I told you once before."

" Why not? "

" Because my foot is in a fork and it won't come out don't matter how I try. I didn't know it was our dad's model or I shouldn't have got up here. You know what he said last time he found me up these trees? "

I do know, but I was getting a bit tired of protecting Amos from his father's just anger.

Amos continued. " When I saw you and dad coming back I dare'nt move till you'd gone away, and then my foot was caught."

" Have you tried taking your boot off? " I asked.

" I hadn't thought of that."

" Think of it now then, and hurry," I said sharply.

" How can anyone take their boot off when it is caught in a tree? " he asked.

" Oh ! You don't have to move the tree. You unlace the boot and move your foot."

"Oh ! "

" Yes. Hurry."

There was silence. I noticed that it had begun to spot with rain. But for this I might have been safely inside my favourite pub. Irritated with the time he was taking, I ordered him once more to get a move on.

" I've took me boot off, but it won't come out," he replied.

" Rubbish ! " If the boot is off, your foot should come out.

" Oh ! I've taken off the wrong boot."

" Well, take off the right one."

" I can't. It's done up in a knot and I can only undo bows."

" Cut it, then."

" Our mum'll be cross."

" Never mind. I'll tie another knot. One more won't matter."

Silence.

" I've got it out."

" Come on down then."

" With me boot off? "

" No, idiot, put it on."

" I've dropped it."

" All right. Come on down."

He appeared at last, with a sheepish miniature of Job's own grin.

" Glad it was you, and not our dad come back," he said. I saw his eyes open wide as he looked at something behind me.

" What's that? " said a gruff and familiar voice.

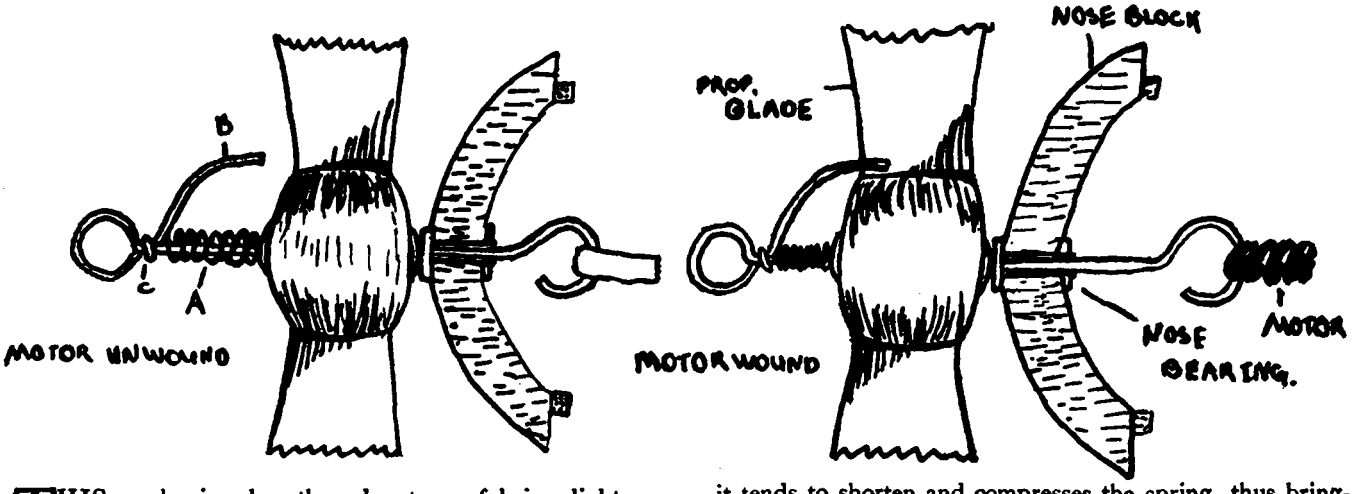
I turned and faced Job.

Here I must draw a veil. Amos, who had come through grave danger, and had been within an ace of safety, had fallen through one of those facetious traps of fate common to us all.

Job having got home and finding nobody there and the door locked, and with no money with him to buy chips, had come back for his ham roll.

A SIMPLE TYPE OF FREE-WHEEL

By G. COX



THIS mechanism has the advantage of being lighter, simpler and more compact than the old type, and it also brings the weight of the propeller farther back.. When the motor is unwound the propeller is free to revolve on the shaft, because the spring (A) pushes the driving wire (B) clear of the blades. When the motor is wound up it tends to shorten and compresses the spring, thus bringing the driving wire in contact with the propeller blade and causing it to turn. If the shaft is of a fairly large gauge one twist at (C) should be sufficient, but if a very powerful motor is used the turn should be soldered.

Notes on a Council Meeting of the S.M.A.E., held at the Y.M.C.A., Tottenham Court Road, on Wednesday, August 16th, 1939.

This date had been fixed at the previous meeting of the Council. Owing to the fact that Mr. Cosh had only returned from America on the evening of August 16th, there had not been any time for him to circulate an agenda. Attendance at the meeting was therefore not up to standard, and it was decided to only undertake routine matters and prepare an agenda for the next council meeting, which was fixed for August 30th.

Dr. Thurston took the chair.

It was decided that the minutes of the previous meeting should not be read until a full council was in attendance.

The chief matter that occupied the meeting's attention was a complaint from the north-west London area, which was put to the meeting by Mr. Bell. It was alleged that during the Wakefield Elimination Trials, a competitor, who had finally won a place in the team, had substituted a propeller for one lost during a flight. Mr. Brind, representing the Hayes and District M.A.C., gave the meeting further information. Mr. Wheatley, also of Hayes, arrived at the meeting later in support of Mr. Brind and Mr. Bell. The allegation was that the model, which had flown away, had been returned to the aerodrome minus the propeller. The owner then proceeded to the farm where the model had been found and subsequently returned with a propeller. The following day another propeller had been found on the farm, this, it was alleged, was the original one used on the machine, and it was forwarded to Mr. J. C. Smith, the Hon. Competition Secretary. Mr. Smith explained that owing to the urgency of the matter, he had called a special meeting of the officials of the Society, and that besides himself, Mr. Houlberg, the chairman; Mr. E. F. H. Cosh, hon secretary; Mr. L. J. Hawkins, hon, treasurer; and Mr. H. York, hon. Press secretary, had attended and discussed the matter at great length. Subsequently, the competitor in question was telephoned and asked to attend the meeting, which he did.

The officers of the Society told the Council that prior to hearing the competitor's explanation they held the same views as the Hayes club and they felt that substitution of propellers had been made. After hearing the competitor's explanation, another competitor, who was present when the first propeller was found, was interviewed. This gentleman confirmed the particulars that had been given to the officers. A third competitor was also interviewed and gave confirmation in writing that the second propeller was his property and had been lost from his model on the morning of the trials. The officers of the Society were fully satisfied that there had been no substitution. The Council, feeling that publicity had been given to the matter by the discussion which had taken place, desired that all the clubs should have the opportunity of having full details placed before them (this was impossible at the present meeting, owing to the small attendance). They thereupon requested that the subject should be reopened at the September meeting. They also asked that Messrs. Brind and Wheatley of the Hayes club, together with the competitor and his two witnesses, should be in attendance at that meeting.

At this junction, Messrs. Brind and Wheatley had to leave the meeting owing to the distance they had to travel to get home. Dr. Thurston, before their departure, wished it to be placed on record that the S.M.A.E. and all affiliated clubs thanked the Hayes club for the hospitality which was always received when visiting Fairey's Aerodrome. He also desired to thank the Hayes club for their "fatigue party," and the way in which that "crowd of fellows" cleared up the 'drome. Mr. Brind stated that recently Air Ministry officials were in constant attendance on the aerodrome and that those people making themselves objectionable by leaving litter and otherwise misbehaving themselves would be politely escorted from the aerodrome by the said Air Ministry officials.

A letter was received from Mrs. Joan Dray, in which she thanked the S.M.A.E. and affiliated clubs for their assistance. She stated that she had been enabled to give her children the necessities of life, and had been able to keep Gerald, aged 10, at the Grammar School. Mrs. Dray also enclosed a school report upon which the council congratulated her. Mr. Hawkins stated that the fund had totalled about £50. and that he had just received one guinea from the Brighton club. The whole of this amount had been sent to Mrs. Dray during the last seven months. Mr. Hawkins thanked all those who had so kindly assisted, and requested that any further donations should be sent as soon as possible to him at "Heathview," Meadowcourt Road, Lee, S.E.3.

Mr. Knight raised the question about the voting powers of clubs whose delegates were absent from area meetings. This matter was placed on the agenda of the next council meeting.

Dr. Thurston stated that he had received many letters of congratulations and appreciation on the organisation and hospitality shown to the foreign competitors in the King Peter Cup competition. The council expressed their thanks to all those people who assisted the S.M.A.E., and most particularly to our beloved patron, Lord Wakefield, not only for assisting the Society in running the competition and giving the concluding banquet, but for the very great honour he had conferred upon the whole movement by taking the chair at that function.

Application for two petrol enthusiasts to attempt to break the British duration record during the Brighton Club's Rally was received. The competition secretary, who stated that he would be present on that day, was granted permission to sanction these flights if the conditions were suitable.

Mr. Hawkins was requested to provide a balance sheet of the Wakefield and King Peter Cup funds. This he promised to have ready by the next council meeting

The following clubs were affiliated :—

Newcastle-on-Tyne M.A.C.	...	23 members.
Whetstone & District M.F.C.	...	25 ,,

Fairy Aviation (Sports & Recreation) Club	...	...	20 ,,
Edinburgh M.A.S.	...	...	19 ,,

S.M.A.E. Report—

A claim of 10 min. 24 sec. for the Caton Trophy, made by Mr. A. W. Lancaster, of the Bolton M.A.S., was referred back for the signatures of the timekeepers.

The following records were passed :—

A. C. Minion, Hayes & Dis. M.A.C. (Tow-Line Glider)	6 min. 35 sec.
A. B. B. Fox, Yeovil (Tow-Line Glider)	6 min. 39 sec.
A. B. Rainey, P.M.A.L. (Flapping Wing)	24·2 sec.
F. A. Bunce, High Wycombe M.A.C. (R.O.G. 0.1.P2.1. Twin Fuselage Pusher)	49·6 sec.

The following areas were represented at the meeting :—

North-East London. South-West London.
North-West London. North-Western Area.

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

H. York,
Hon. Press Secretary.

South Coast Gala Day.—*Concluded from page 668.*

Tugwell for the splendid way they got through the day, serving refreshments tirelessly and uncomplainingly in the hot sun. Their successful handling of the thirsty individuals was exemplary. To Mr. R. Bennett (announcer) and all the other officials who gave their time we offer congratulations on making the day so successful.

The organisers are greatly indebted to the following who generously contributed to the prizes :—

Model Aircraft Stores (Bournemouth) Ltd.; National Modellers Supply; Saltdean Model Aero Stores; Messrs. Blunt, Wynne and Tugwell.

RESULTS

Nearest to 45 Sec.

1. Mr. Finch (Rye) ...	...	45·5 sec.
2. Mr. Carroll (Portsmouth)	...	46·8 ,,
3. Mr. Paine (Portsmouth)...	...	39 ,,

Open Duration.

(Any Rubber-Driven Type. Average for three flights).

1. Mr. F. Briggs (Cheam) ...	3 min.	35·1 sec.
(Hayes)	8 ,,	13·4 ,,
2. Mr. V. S. Gathercol		
3. Mr. A. J. Weller (Surrey)	2 ,,	16·64 ,,
Best Flight of Day—		
V. S. Gathercol (Hayes) ...	5 ,,	25 ,,

Inter-Club.

1. Hayes (total for 4 members)	...	757 sec.
2. Gosport ,, ,, ,, ,,	...	668·5 ,,

South Coast Petrol Trophy.

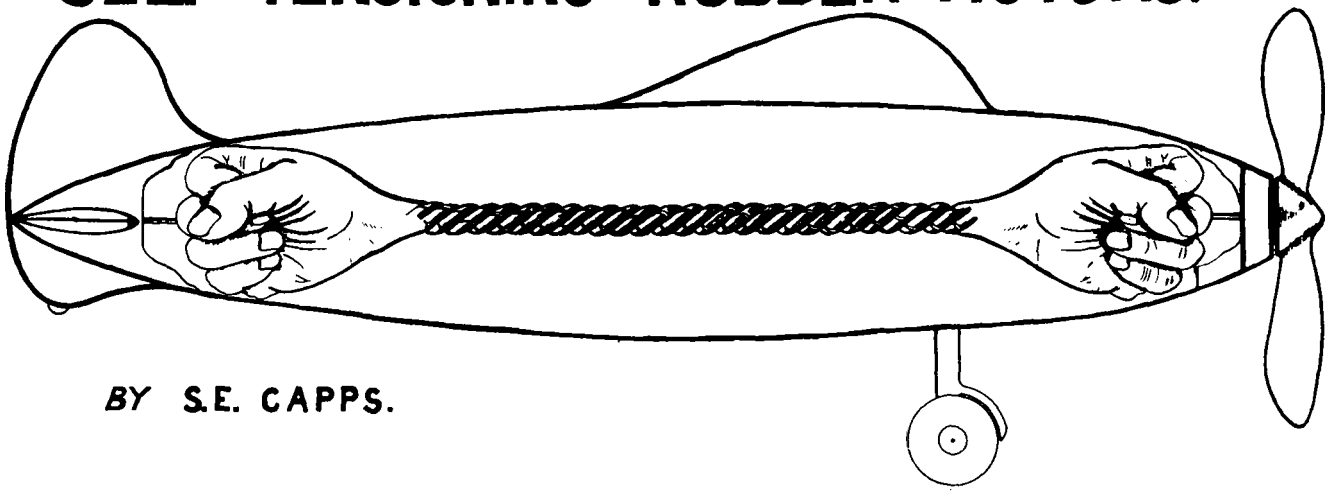
(Two Flights. 30 sec. motor run).

1. Mr. Coxall (Hayes) ...	...	93·7 sec.
2. Mr. Spencer (Cheam) ...	...	62·5 ,,
3. Mr. Wellens (Croydon) ...	...	46·8 ,,

Women's Contest.

1. Mrs. Weller (Surrey)	...	185·8 points
2. Mrs. Cook (Southwick)	...	167 ,,
3. Miss Wheatley (Hayes)	...	145·4 ,,

SELF-TENSIONING RUBBER MOTORS.



BY S.E. CAPPS.

IN this article it is hoped to describe, with the help of the accompanying sketches, methods of controlling the motor length when run out without the aid of mechanical devices.

There has been much said during the last two or three years of plaiting or knitting the rubber motor strands together into a kind of rope-like appearance, and strange as it may be, there are many who do not know why it is done.

The writer knows of one modeller in his district, who, when he heard that model motors were being plaited or knitted, made himself a large knitting ninny and proceeded to knit his motor into a form of rope. The extraordinary thing about this was he did not know why it was necessary, and said that he had done it because most fliers were doing it. This modeller was no schoolboy, and has now joined the local model club where it is hoped he will learn why such things are done to a model motor.

It may be by this that there are others who are actually in doubt as to the real reason for this also. For those I would say that plaiting or knitting the rubber motor is to shorten its overall unwound length to that of the distance between the motor hooks. This is done to prevent the long motor from sliding to either end of the fuselage and destroying the balance of the model while in the air.

If any of these modellers care to fly a model with a motor half again the length of the fuselage they will find out in no uncertain manner that when the motor runs out, the model will promptly stall and dive until it reaches the ground.

This it usually does in a frightful hurry, with the result that damage is caused to the framework.

If they now try a model with the motor just taut between the hooks they will find that after the motor has finished, the model will continue to glide flatly and constantly down to the ground, and land in a smooth manner.

" But they say we get a longer flight with the longer motor."

That is so, and to retain that longer duration with the longer motor it is necessary that something must be done to control the excess length when gliding down to land. This, then, is the reason why motors are plaited or knitted.

The plaiting or knitting bunches the loose rubber together in a predetermined manner which still allows the full use of the long length to get that greater number of turns, and consequently longer flight, really is a means of causing the motor to remain in tension between the hooks when the power is exhausted.

The writer calls this self-tensioning, which seems to explain it more lucidly than plaiting or knitting. That control of motors, longer than the fuselage can be accomplished without much trouble, is a point that every modeller, after good flights, should know, and those methods shown here can be relied upon to give every satisfaction providing they are carefully incorporated in a model.

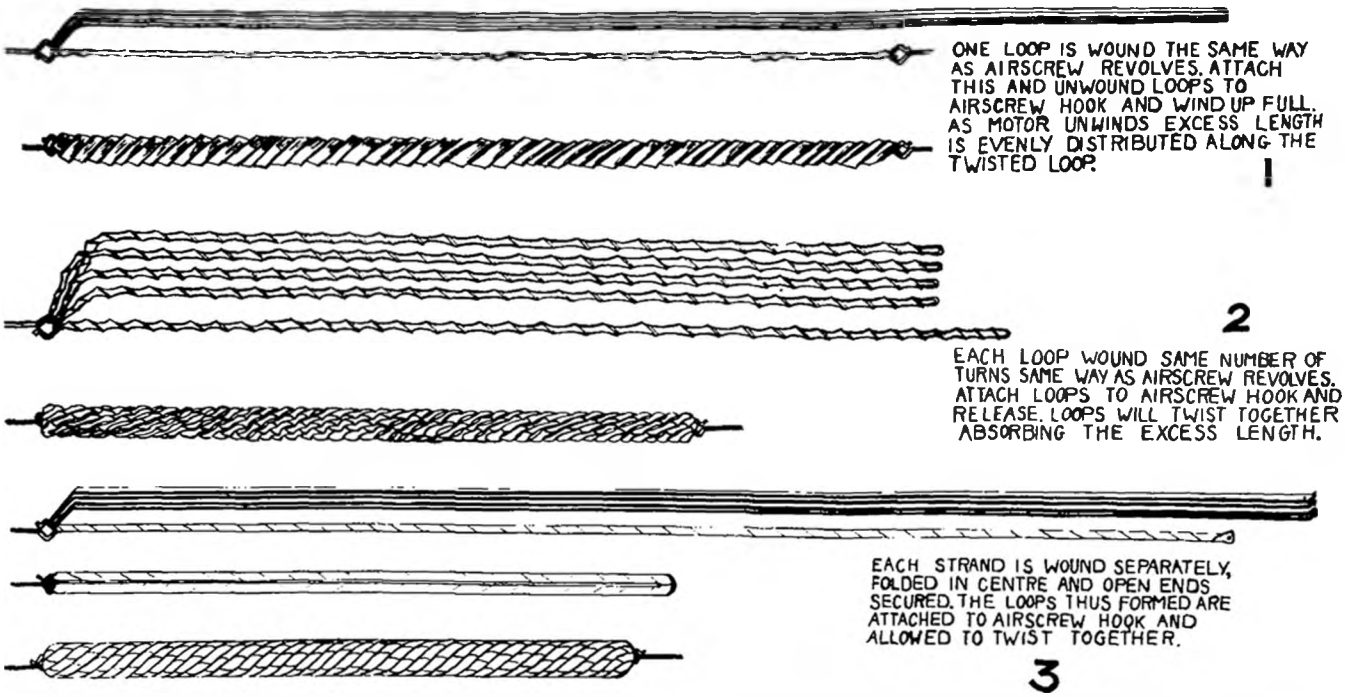
Self-Tensioning Method No. 1.

In this example, a motor, four loops $\frac{1}{4}$ in. × 1/20 in. rubber is 42 in. long, and the distance between the hooks is 34 in. One loop of the motor is given 100 or 200 turns in the same direction as the airscrew revolves. This and the other loops are next put on the airscrew hook, and the motor wound up. Then, if the noseblock is held and the airscrew released it will be found that when motor runs out, the looseness of the unwound loops will be evenly distributed along the wound loop, sufficiently tight enough to prevent the excess weight moving from one end of the fuselage to the other. The number of turns put on the loop is best found by experiment, as it is bound to vary with the different motors.

No undue strain is put on the single loop as this is unwound before the full motor is wound up, and does not carry the same maximum turns as the other loops.

Self-Tensioning Method No. 2.

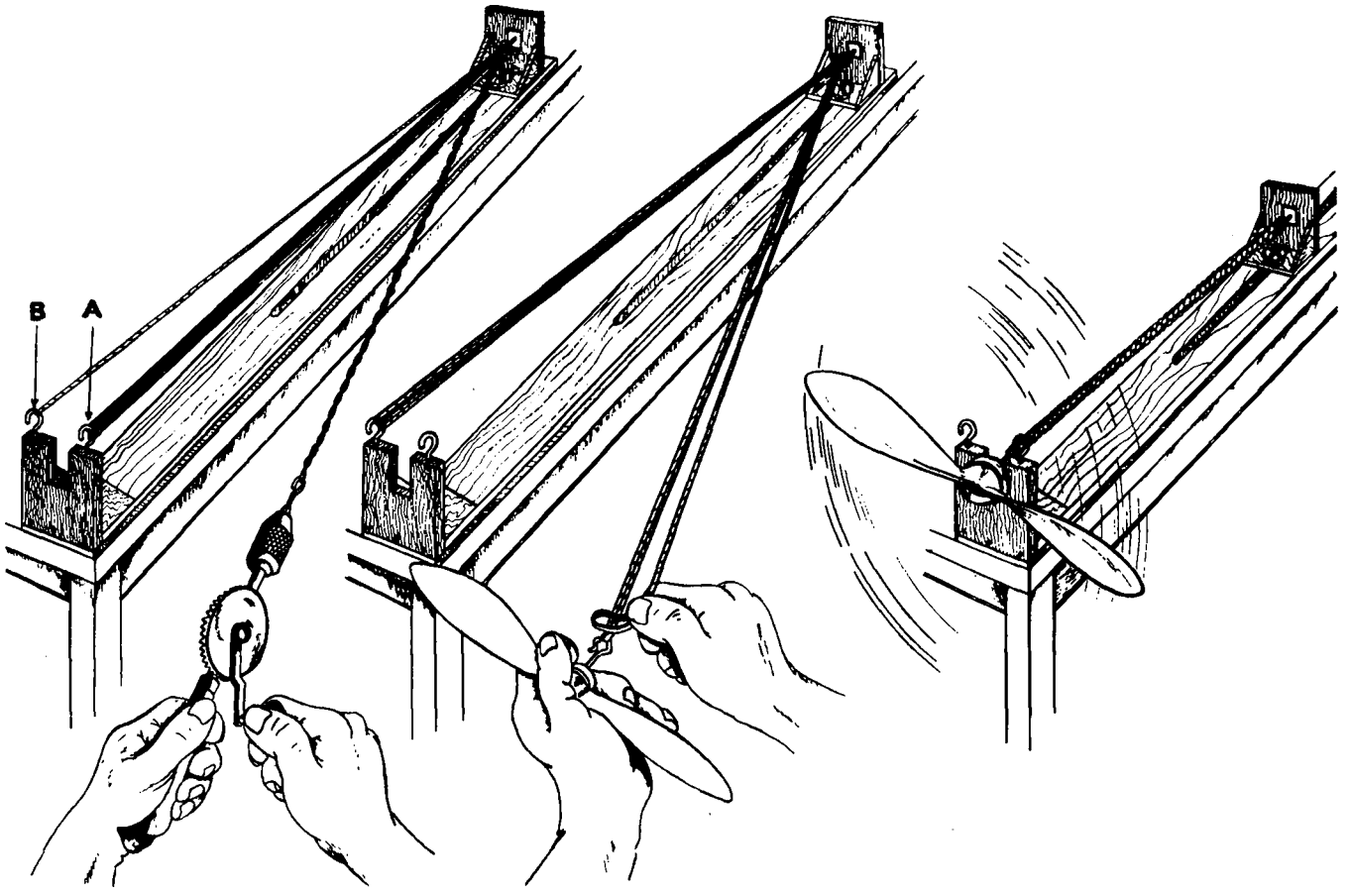
In this method, each loop of the motor is given an equal number of turns in the same direction as the airscrew revolves. These are then put on the airscrew hook and allowed to twist up together. A greater shortening of the motor can be had this way than with self-tensioning method No. 1.



Here, again, each motor requires individual treatment. and experiments must be made to determine the best number of turns to put on the loops. Self-tensioning method No. 2 in the sketches will give the modeller an idea of the procedure and the appearance of the motor when so tensioned.

SELF-TENSIONING METHOD No. 3.

Employment of this method will probably give the greatest shortening of the motor length than either of the preceding ways. But it is considerably more complicated as each loop is opened out into one long strand. This is carefully wound up until the coils just close.



This is shown in the sketch. It will be necessary to pierce a small hole in the end of the strand to insert the winding hook. These strands are next folded in the middle, and the two ends secured together. The loops thus formed are then placed on the airscrew hook and allowed to twist together as with the preceding methods. This will result in the skein taking the appearance as shown in the sketch self-tensioning method No. 3.

The writer has shortened a 4 oz. skein of rubber 72 in. long to just hang taut between hooks 38 in. apart. A motor such as this would be most suitable for a " Wakefield " type contest model, as one would have a highly powerful motor with a large number of turns. In this case about 1,500 turns on ¼ lb. of rubber. A motor of this power is probably greater than most require, but when used in a model with a total weight of 8 oz. in good trim, well, something is likely to happen in the way of super durations when it hops off the take-off board.

Self-Tensioning Method No. 4.

This is an adaptation of self-tensioning method No. 2, and is used where the motor is made up of a lot of strands of ⅛ in. or $\frac{3}{16}$ in. rubber strip.

The number of loops are divided into a smaller number of loops, each containing a number of the motor loops, each, say, have two or more. These are then treated as single loops and are wound up as before described in self-tensioning method No. 2.

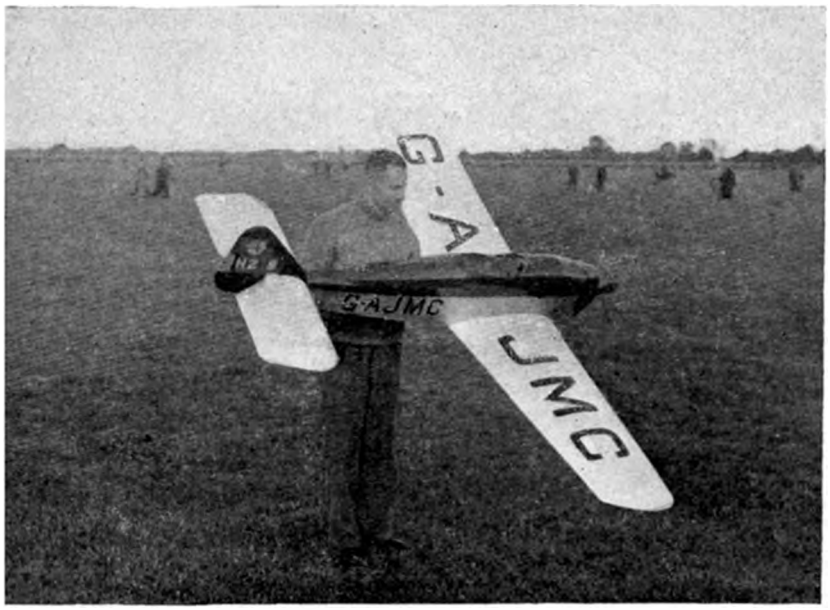
In conclusion, the writer would point out the necessity of observing the following points. The rubber must be good quality, and the motor must be built free of crossing strands as far as possible, free from any gritty substance that is liable to damage the surface, and must be very freely lubricated. Correct attention to all details in the descriptions, together with the above-mentioned points, should enable any modeller to shorten his motors to suit the hook positions without a great deal of trouble.

The amount of shortening that is possible is dependent on the cross-sectional area of the skein in relation to its length. In other words, the thicker a skein is, the greater the shortening that can be expected. For all the motor experiments carried out by the writer, the bench-tester for model airplane motors, described in The Aero-Modeller some while back, should be used, as with this necessary observations can be made that would be impossible if the motor is in the fuselage.

In the sketch the bench-tester is shown with the additional hooks A and B. As the loops or strands are wound they are taken from hook A and placed on hook B.

When all are placed on the airscrew hook, the nose-block is accommodated in the slot on the end where it can revolve safely. The rear member of tester carrying the end of the skein should be moved to the position corresponding to the distance between the hooks before motor is allowed to tension itself.

Attention to these details will ensure for the flier longer durations and freedom from crashing.



COMPETITION REPORTS

Frog Finals—National Cup—Bowden International Trophy —Sir John Shelley Cup

Held at Fairey's Aerodrome, August 6th and 7th, 1939

THE Frog Finals, which were held in the morning, attracted four entries of widely different types. Montgomery (Fife) and Chasteneuf (Blackheath) flew low-wing models reminiscent of the Fairey "Battle" and other single-engined Merlin-powered machines going into service with the R.A.F. Montgomery's model was fitted with an undercarriage that retracted immediately it had left the board. Vanderbeck (T.M.A.C.) had a slab-sided cabin biplane fitted with twin fins, and Guest (General Aircraft) a pre-war type Caudron. In the flying trials Vanderbeck, whose model was less semi-scale than the others, more than made up for the loss of points for originality by averaging 80·15 sec., which enabled him to obtain first place, with Montgomery runner-up 16·15 points behind.

After an adjournment for lunch the National Cup competition was commenced. The conditions were ideal, being warm with a light breeze, but there were not enough thermals to make "fly-aways" too frequent! Mr. Almond (North Kent) made the best flight of the day of 7 minutes.

The progress of the ladies in model flying was marked by the fact that several clubs included them in their teams, notably Miss Lundy, who flew for Northern Heights, the holders, and who was also included in their last year's team. Miss Kathleen Almond, aged 9, flew for North Kent, this year's winners, and on her second flight she did 4 min. 3 sec. Maybe other people there were her elders, but few her betters!

The growing popularity of the National Cup is reflected by the fact that this year 29 clubs competed, including one from Scotland.

In contrast to the previous day, the weather was very dull, with a slight drizzle in the earlier part of the morning. Nevertheless, 30 entrants for the Bowden lined up their models in the enclosure for inspection by the judges. This year there were no foreign entries, which is unfortunate, as their presence would have made the competition even keener than it was.

On inspecting the models, several of them were particularly outstanding. Mr. Wilson (Hayes) had a well streamlined black and silver parasol monoplane which performed very well; Capt. Rickard (Bournemouth) had a very neat strut-braced monoplane which was rendered interesting by the fact that, unlike most others present, it had a British engine; Mr. Wellens (Croydon) had the largest model, a silver high-wing monoplane of 10 ft. span. The streamlining was very good on this machine, especially the engine, which was completely cowled in; another outstanding model was a Comet Clipper from Leeds, whose finish and lining was beyond reproach.

The two most unusual models there were those of Mr. Worden and Mr. Coxall. The former had a strut-braced cabin biplane, and the latter a large low-wing monoplane with lines not unlike those of a Miles Hawk. Mr. Coxall disproved the belief that low-wing models do not fly, by making not only three very successful flights, but also by lifting the Bowden Trophy!

When flying was commenced the lack of wind and the damp, slippery state of the grass proved such a handicap that only 50 per cent of the entrants succeeded in taking-off. Mr. Ross (Northern Heights), however, scorned the use of the take-off board, and made three perfect take-offs from the grass.

At the end of the three rounds it was found that Coxall, Ross and Stubbs were the only competitors who gained a maximum of 180 points for their flying. After adding the points previously awarded for streamlining, the results were:—

1. J. M. Coxall (Hayes) ... ... 200 points (which was the maximum obtainable).
2. E. Ross (Northern Heights) ... 195 ,,
3. R. Stubbs (Essex Power) ... 181 ,,

After an interval of half an hour, during which an excessive amount of unrestricted and dangerous testing took place, the Sir John Shelley Cup was started. At this stage I should like to point out that Mr. J. C. Smith was greatly handicapped in his organisation by the lack of a public address equipment, which had not been ordered for the meeting. Mr. Smith appeared, armed with a large megaphone, whose owner, I understand, has on occasions used words through it which are by no means as golden as those of Mr. Smith.

In the Sir John Shelley competition the models did not find it so difficult to take off as earlier in the day. One of the best performers was a "Redwings" biplane, which made three perfect flights. The competition resulted in a close fight between Messrs. Rowe (Bournemouth), Ross (Northern Heights), Almond (North Kent), Blunt (Brighton), and Byfield (Hayes), who eventually finished in that order. Only 7·25 points separated Rowe from Byfield.

THE SOUTH COAST GALA

Held on Portslade Downs, on Sunday, August 20th, 1939

On left, Mr. J. M. Coxall, with his low-wing petrol 'plane, winner of the Bowden Trophy. On right, entrants for the South Coast Gala Trophy for petrol 'planes lined up for inspection of time switches. Below, competitors at the petrol 'plane competitions at Faireys.

THE unprecedented numbers attending this popular gala, organised by the Brighton and District Model Club, must all agree that the weather was on their side; windy, perhaps, but those waiting their call for the competitions, and spectators, too, welcomed its cooling freshness. Because, and not in spite of, its velocity, many creditable performances were achieved. The 5 min. 25 sec. of V. S. Gathercol (Hayes) was magnificent, and within a minute of beating the ground record of the Brighton Club.

Many old faces were present, and Dr. and Mrs. Thurston were, as usual, present. Clubs from all over the country were represented, including Lancashire, Yorkshire, Lincolnshire, Derbyshire, and all the southern counties. Transport facilities were provided for those coming by train to Portslade.

T. Lance, of Brighton, looked like sweeping the board with his beautifully-designed model, four of which he has already lost whilst on a trimming flight. In the nearest 45 sec. competition, Finch, of Rye, turned the tables on Brighton by winning with a margin of error of only ·5 of a second.

In the Open Duration, the first three, namely, F. Briggs (Cheam), V. S. Gathercol (Hayes), and H. J. Weller, in that order, are to be congratulated on their splendid times.

In the Inter-Club, Hayes again took first place for the second year in succession, with Gosport running a good second.

The Petrol Contest aroused a great deal of interest, and proved to be one of the high spots of the day. J. Coxall, of the Hayes club, won in handsome style, with a margin of 30 sec. over his nearest rival. Mr. Coxall deserves his success as his model is one of the most stable and consistent models which has been flying this year. D. A. Russell, flying his semi-scale, high-wing job made a splendid first flight, which, had he repeated, would have placed him among the winners. Spencer (Cheam) took second place, with Wellens (Croydon) third.

The women's contest proved to be both interesting and entertaining, Mrs. Tugwell and Mrs. Thomson both launching their first ships very efficiently, it may be added, but the latter, having a total disregard for her timekeeper, who in his eagerness to escape annihilation forgot to stop the watch! The placid expressions on some of the ladies' faces whilst operating spoke well for the assimulation of knowledge from their aero-modelling boy friends!

The day concluded with prize-distribution by Mrs. Thurston, who spoke enthusiasticaly on the joy and good comradeship which attends these gala days, in congratulating the winners on their splendid performances. She expressed the hope that the South Coast Gala Day would be a regular event in the model aeroplane world. In thanking Mrs. Thurston for her generosity and kindness in patronising the meeting, Mr. I. C. Lucas, hon. organiser, extended to all the visitors, competitors and friends his warm appreciation for their attendance, coupled with the thanks of the rest of the Brighton club. In conclusion, Mr. Lucas verbally tendered an invitation for their presence next year. One cannot conclude this report without special praise and mention of Mr. I. C. Lucas for the indefatigable spirit and keen energy he has put into making this gala day a success. For months past he has worked unceasingly in arranging " ways and means." Nor must we forget Mrs. and Miss Towner, and Mrs.

(*Please turn to page* 658).

LETTERS TO THE EDITOR

(and one for "Clubman" too)

Dr. A. P. Thurston,
President of the S.M.A.E.,
329 High Holborn,
London, W.C.1.

MY DEAR PRESIDENT,

Our national team has informed me of the remarkable success of the competition recently held in London for the Cup of our King, emphasising particularly the importance of your personal participation in the organisation of this competition. I take pleasure to extend you in the name of the Royal Yougoslav Aero Club, as well as in my own, our deep gratitude and cordial congratutions upon such a splendid accomplishment of your task.

Mr. Mirosavljevic tells me that the highest factors of your country had honored the competition with their special attention. We highly appreciate this mark of distinction, all the more so as we consider such competitions as most valuable for the development of aeronautical construction craft and for a closer communion of the young constructors of all nations.

I beg you, my dear President, to express to Lord Wakefield in the name of the Royal Yougoslav Aero Club, as well as in my own, our deep gratitude for the patronage he so kindly extended to this competition and for his wide and generous support to it.

I have been also informed of the wonderful kindness and hospitality shown to the Yougoslav team during its stay in England. The members of the team are greatly elated by the reception offered them in London and are full of praise and gratitude for their British hosts.

Allow me, my dear President, to tell you again how thankful the Royal Yougoslav Aero Club, our national team and I are to you and to Madame Thurston, who has so kindly participated in the organisation of the competition, for your splendid efforts.

Very truly yours,
(*Signed*) TADIJA SONDERMAJER,
President.

DEAR SIR,

Thank you very much for your kind letter. I have built the "Hurricane" glider and enjoyed it very much. I look forward to THE AERO-MODELLER each month.

I am only twelve and a girl, and I feel that I am too young to join all those wonderful clubs, but I shall just content myself by making models and, of course, reading THE AERO-MODELLER.

Yours truly,
JANET MOSS.

Ardmore,
Farnborough, Hants.

DEAR SIR,

May I voice in your columns the general feeling of discontent among petrol model flyers at the type of competition offered to them by the S.M.A.E. Council.

I discussed the problem with numerous "petroleers" on "Bowden and Shelley" day, and I can only wish that the Council could have heard the comments.

There is a feeling that the S.M.A.E. are "out of touch" with power flying, and some modellers, rightly or wrongly, feel that there is a strong movement against power flying in the S.M.A.E.

I personally am determined not to support any competition in which fixed duration is the salient feature, as this lowers design to the lowest level.

In an effort to be constructive, may I suggest that the S.M.A.E. import one or two experienced practical power flyers and form a small power committee to handle power matters, which I know would be an improvement on the present General Council system.

To the great body of petroleers I would say "This is *your* problem; let your opinions be known."

Yours faithfully,
A. WILSON,
Hayes and District M.A.C.

"THE CLUBMAN,"

DEAR SIR,

The members of the Windsor Model Aero Club have asked me to inform you that they appreciate the manner you are adopting in the presenting of the Club Reports. At first they were a little dubious, but now I can assure you that they are behind you to the last member.

From my point of view also I appreciate your ideas, and I can say without qualms that I don't think you have missed one *important* item of news value from my report.

Congratulations to your answer to a most difficult need.

I am, yours faithfully,
GEO. K. BLETCHER,
Press and Publicity Sec.,
Windsor Model Aero Club.

P.S.—Refer any grousers to us; we'll tell them a thing or three.—G.K.B.

DEAR SIR,

It gives me great pleasure to thank you very sincerely on behalf of the committee and members of Dundee Model Aeroplane Club, and, I think I am safe in saying, on behalf of all Scottish model aero clubs, for your very generous and unexpected offer to donate a cup for the winners of the newly-formed Scottish Model Aero Clubs' League Competition.

We gratefully accept your offer, and suggest that you defer handing over the cup until we have consulted with other clubs in the league regarding the trophy.

It is very good of you, and shows that you have faith in the movement in Scotland, as the league is as yet only an idea in the making. It is up to the Scottish clubs now to prove that your confidence is not misplaced, and I have no doubt that they will do so.

The league scheme is the outcome of the Clyde Model Dockyard Cup, which started the ball rolling when Mr. C. Alexander, of Edinburgh M.F.C., suggested to Mr. G. Sowter, of Glasgow, organiser of the Clyde competition, that it would be a good thing if some arrangement could be formed to link the clubs together.

So, while Dundee eventually took over the formulating of a scheme, honour must go to these lads for getting the clubs together in the first instance.

In conclusion, may I thank you again for your sporting offer, and assure you that we shall do our best to make the league the success which it could undoubtedly be made.

Yours faithfully,
WM. NORMAN GUILD,
Hon. Sec., Dundee M.A.C.

DON'T WAIT FOR Mr. HITLER

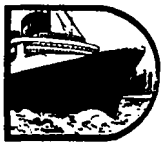
Don't wait for Mr. Hitler to decide your fate, be the master of your own destiny. Do not wait for better times, the ideal opportunity never arrives. We have to make the best of existing conditions, a duty we owe to ourselves and to our country is to make the best of abilities **now**; we cannot wait for those abilities to develop unaided—they must be trained.

By becoming efficient in your vocation you can give the best service to your country and to yourself. The more you increase your earning power the better it is for your country and for yourself personally.

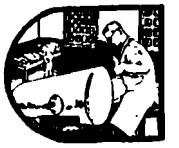
War or no war, earning power always brings its possessor to the front.

YOU CANNOT MAKE MONEY BY SAVING. If your save 10s. per week for 10 years you have only got £260, but if you spend 2s. 6d. per week for 12 or 18 months on a correspondence course, you give your brains a chance to earn thousands of pounds, then there is no need to save. Savings are likely to vanish, but earning capacity is a permanent investment.

DO ANY OF THESE SUBJECTS INTEREST YOU ?

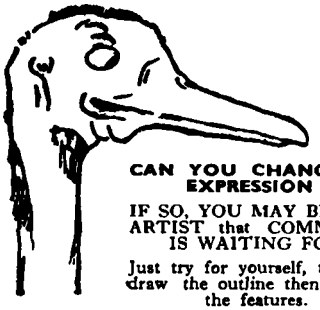




Accountancy Examinations
Advertising and Sales Management
Agriculture
A.M.I. Fire E. Examinations
Applied Mechanics
Army Certificates
Auctioneers and Estate Agents
Aviation Engineering
Banking
Blue Prints
Boilers
Book-keeping, Accountancy and Modern Business Methods
B.Sc. (Eng.)
Building, Architecture and Clerk of Works
Builders' Quantities
Cambridge Senior School Certificate
Civil Engineering
Civil Service
All Commercial Subjects
Commercial Art
Concrete and Structural Engineering
Draughtsmanship. All branches
Engineering. All branches, subjects and Examinations
General Education
G.P.O. Engineering Dept.
Heating and Ventilating
Industrial Chemistry
Institute of Housing
Insurance
Journalism
Mathematics
Matriculation
Metallurgy
Mining. All subjects
Mining. Electrical Engineering
Motor Engineering
Motor Trade
Municipal and County Engineers
Naval Architecture
Novel Writing
Pattern Making
Play Writing
Police, Special Course
Preceptors, College of
Press Tool Work
Pumps and Pumping Machinery
Radio Communication
Radio Service Engineering
Road Making and Maintenance
Salesmanship, I.S.M.A.
Sanitation
School Attendance Officer
Secretarial Exams.
Sheet Metal Work
Shipbuilding
Shorthand (Pitman's)
Short Story Writing
Speaking in Public
Structural Engineering
Surveying
Teachers of Handicrafts
Telephony and Telegraphy
Television
Transport Inst. Exams.
Weights and Measures Inspector
Welding
Wireless Telegraphy and Telephony
Works Managers


If you do not see your own requirements above, write to us on any subject. Full particulars free.

Study at Home in your Spare Time



CAN YOU CHANGE MY EXPRESSION ?

IF SO, YOU MAY BE THE ARTIST that COMMERCE IS WAITING FOR

Just try for yourself, trace or draw the outline then put in the features.

There are hundreds of openings in connection with Humorous Papers, Advertisement Drawing, Posters, Calendars, Catalogues, Textile Designs, Book Illustrations, etc., etc.

60% of Commercial Art Work is done by "Free Lance" Artists who do their work at home and sell it to the highest bidders. Many Commercial Artists draw retaining fees from various sources; others prefer to work full-time employment or partnership arrangement. We teach you not only how to draw what is wanted, but how to make buyers want what you draw. Many of our students who originally took up Commercial Art as a hobby have since turned it into a full-time paying profession with studio and staff of assistant artists—there is no limit to the possibilities.

Let us send full particulars for a FREE TRIAL and details of our course for your inspection. You will be under no obligation whatever.

Jim Duck **ART DEPT. 119**

I HAVE HELPED THOUSANDS OF OTHERS

. . . and when I say thousands, I do not exaggerate, as I can produce well over 10,000 unsolicited testimonials from grateful students who, through our postal Training, have achieved their life's ambition.

If it is your desire to make progress and establish yourself in a good career, write to us for free particulars on any subject which interests you, or if your career is undecided, write and tell us of your likes and dislikes, and we will give you practical advice as to the possibilities of a vocation and how to succeed in it. You will be under no obligation whatever. It is our pleasure to help. We never take students for courses unless we feel satisfied they are suitable. Do not forget that success is not the prerogative of the brilliant. Our experience of over thirty years proves that *the will to succeed* achieves more than outstanding brilliancy.

Dept. 119, THE BENNETT COLLEGE, SHEFFIELD

EVERY DEPARTMENT IS A COMPLETE COLLEGE: EVERY STUDENT IS A CLASS TO HIMSELF

JOURNALISM

Short Story, Novel and Play Writing

There is money and pleasure in Journalism and in Story Writing. No apprenticeship, no pupilage, no examinations, no outfit necessary. Writing for newspapers, novels or pictures is not a gift; it is a science that can be acquired by diligent application and proper guidance. It is the most fascinating way of making pastime profitable. Trained ability only is required, we do the training by post. Let us tell you all about it.

DEPARTMENT OF LITERATURE 119

If you attend to this now, it may make a wonderful difference to your future.

COUPON—
CUT THIS OUT

To Dept. 119, THE BENNETT COLLEGE LTD., SHEFFIELD

Please send me (free of charge)

Particulars of.....

Your private advice about.....
(Cross out line which does not apply)

.....

.....

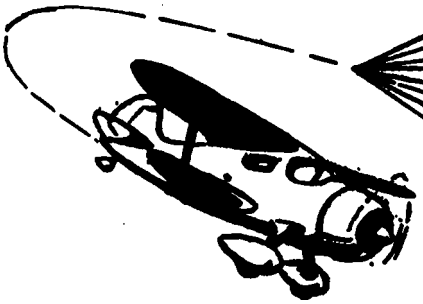
PLEASE WRITE IN BLOCK LETTERS

NAME.....

ADDRESS.....

.....

.....



SOLDERING

By PETER GARROD CHINN

EVERY aero-modeller, especially the petrol model builder, should have a thorough knowledge of soldering, yet few realise how much there is to learn on this subject. Some know sufficient to make a reasonable job, others, unfortunately, do more harm than good, and usually end up by resolving henceforth to avoid everything connected with soldering. However, even those who fall into this latter category are not so unyielding to their resolutions that they would miss the opportunity ot acquiring their lacking knowledge, and so, as a result ot this article, it is hoped that the hobby will possess a few less " non-solderers."

Much of the trouble experienced in operating model petrol engines can be traced to the ignition circuit, and electrical trouble is invariably caused by poor contacts. To get maximum efficiency, all connections should be soldered. But before entering into the reasons for making soldered electrical joints, let us examine the tools and materials used.

First the copper bit, or soldering iron, as it is more commonly called. These weigh from half a pound upwards, and although the modeller might be tempted to purchase a lighter and more easily handled bit, he is well advised to obtain a heavy one, since a small iron will retain the heat only long enough for a light job. With an electric soldering bit, of course, the weight is not important, the size being judged by its wattage. For general model work, the 75-watt size is quite adequate.

Soldering bits are in two types, the straight bit and the hatchet bit. The straight bit is the most suitable for model aircraft construction, although a hatchet bit is useful for soldering sheet metal seams.

The process of soldering with a copper bit is called soft soldering, and the solder used for most purposes is " tinman's," which is an alloy of approximately 50 per cent lead and 50 per cent tin, with a small quantity of other metals, including bismuth. It melts at about 370 degrees Fahrenheit, and can be used successfully on copper, tinplate, lead, bronze, gunmetal, mild steel, brass, zinc, wrought iron, and nickel silver. Good quality solder, bought in rods, crackles when bent. This is termed the " cry."

Metals with low melting points, such as bismuth, pewter and tin, cannot be united with ordinary tinman's solder. For these metals, " pewterer's " solder, which contains about 50 per cent bismuth, 25 per cent lead, and 25 per cent tin, and which melts at approximately 208 degrees Fahrenheit, is used.

Before solder can be applied to any point, the metal must be thoroughly clean. This is one of the reasons why a chemical preparation, known as a flux, is used. Other purposes of a flux are: to assist in the flow of the solder, and to prevent an oxide from forming.

It is with this latter statement, that we begin to see why electrical joints must be soldered. Metal contacts which become oxidised through the action of the atmosphere, are poor conductors, and in consequence a loss of current occurs unless this oxide is removed and prevented from forming again.

Soldering with a flux is the only way of doing this. Scraping the contacts is of no use, since the metal will oxidise immediately after.

There are three main types of flux, zinc, chloride, commonly known as " killed spirits," resin and tallow. Zinc chloride, which is the most widely used, is suitable for most metals, and may be prepared by dissolving scraps of zinc in diluted hydrochloric acid, until the solution ceases to effervesce. All traces of this flux, however, must be removed from around a finished joint, otherwise the metal will corrode. It is for this reason that killed spirits must not be used in electrical work, one of the proprietary non-acid fluxes or resin should be used here. Resin may be made considerably easier to apply by dissolving in methylated spirit. About four oounces of resin to the pint of alcohol makes a suitable solution, although, of course, such a large quantity will not be required.

The correct flux to use when soldering lead, is tallow. The jointing surfaces, however, need to be scraped free of oxide immediately beforehand, since this flux has no cleansing action.

Spirits of salts—diluted hydrochloric acid—in its "unkilled " state, is a suitable flux for soldering zinc.

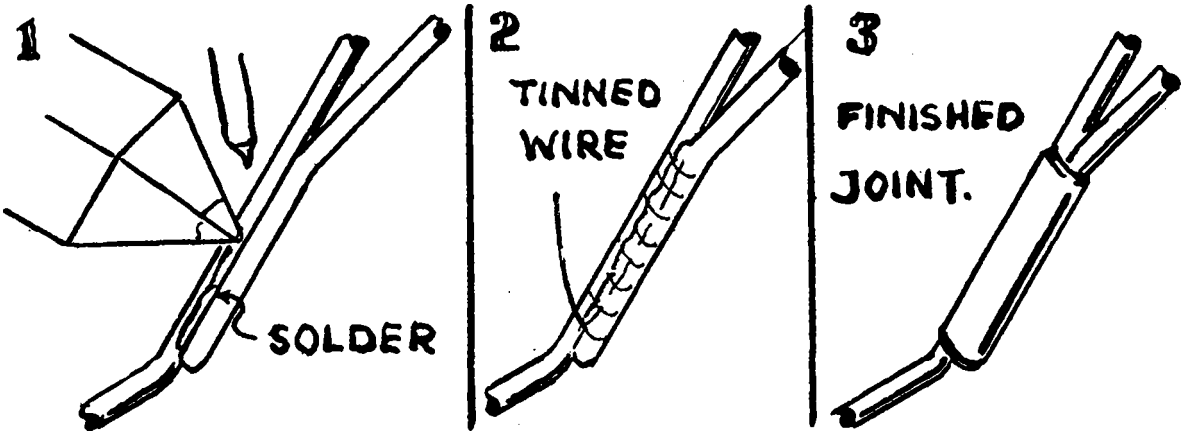
Now to turn to the actual procedure of soldering. First the copper bit must be " tinned "; it is important that all four sides of the tip are properly covered with solder. The most convenient method of doing this is as follows: Procure a shallow pan, a tin lid, providing it is free of paint or lacquer may be used, and into this place a few pieces of solder and some flux. Then thoroughly clean the bit—with a file, if necessary—and after fluxing and heating, rub each side of the tip in the pan until it is completely covered.

Subsequently, when the bit is heated, care should be taken to see that this tinned tip is clear of the flame.

This brings us to the method of heating the bit. If it is an electric bit there is no need to worry, but a plain bit requires more attention. A bunsen burner or gas ring is the most convenient, especially if the latter is fitted with an iron cowl, which will conserve the heat. Directly the flame turns green, the bit will be near the correct heat, although the exact temperature can only be judged by experience. The continuous heating in a gas flame is detrimental to the copper surface, and the bit may become corroded. This may be prevented to a certain extent if a practice is made of lowering the gas when the bit is simply being kept hot. However, the iron is bound to become corroded in time and, whilst not an essential it is a good idea to purchase a block of sal-ammoniac, on which to clean the bit. The bit is removed from the flame, and with a few quick strokes of an old file, each side cleaned of any old solder. It is then

quickly wiped on a rag and rubbed on the block of sal-ammoniac—avoid inhaling the fumes given off during this operation—then wiped again and tinned in the usual manner.

Having tinned and heated the bit, the part to be soldered is thoroughly freed of grease and dirt, then fluxed. The bit is next applied to the joint and directly the flux begins to vaporise the solder is touched to the iron at the point of contact. The solder will then flow around the joint, any knobs or lumps of solder being smoothed out with the hot bit.



It must be understood, however, that the joint to be soldered must be brought to a heat that will melt the solder, in order that the solder will adhere, and it is at this point that the large bit proves its worth.

Sometimes trouble is experienced in preventing a wooden attachment from becoming burnt by the heat conducted from a joint being soldered. This can usually be remedied by twisting a damp rag around the metal a short distance from the part to be joined.

When joining heavy steel wire, such as in a petrol model undercart, the following procedure should be employed.

After making sure the surfaces to be soldered are quite free from excess dirt, apply flux and press the parts together in the required position, preferably clamping in a vice. The bit is then applied, and solder run into the joint. It should then be bound with fine tinned wire, again fluxing. The bit is applied once more, adding a little solder if necessary.

This will make a good strong joint, which, apart from welding, can only be bettered by a brazed or " hard " soldered joint. The average modeller will probably believe that these latter types of joints are beyond his capabilities or equipment, but those who possess a blow-lamp for brazing, or a bunsen burner for hard soldering, will find that neither of the two methods requires any great skill, and a few words on these subjects should not be amiss.

A hard soldered joint is considerably stronger than the more familiar soft soldered one. Brass and most hard metals can be very successfully jointed, but metals with low melting points cannot, for obvious reasons, be united by hard soldering.

For model work a bunsen burner will generally provide ample heat. For larger jobs, however, a gas blow-pipe and bellows are necessary, the latter preferably being of the foot-operated type, and fitted with a reservoir.

The solder used is " silver " solder, which is obtainable in rods or thin sheets. The flux is borax and should be made into a stiff paste with water.

The procedure is to first clean the surfaces to be soldered, then apply the borax and heat in the bunsen flame. The flux will swell, until, when the metal is almost red hot, it will melt. The joint is then fed with solder, and when sufficient has run in to form a good joint, the work is removed from the bunsen flame.

For brazing, a blow-lamp is advisable, since a higher temperature is required than is used for hard soldering. In large jobs a coke hearth is necessary, but to the aero-modeller this will rarely be of any use. Brazing is particularly applicable to hard steel work, although, of course, almost any hard metal can be jointed.

The solder or " spelter," as it is called, is actually brass in a granular form, and consequently may be modified to meet the requirements of various metals.

Thus, on a metal with a high melting point, it would be safe to use brass containing a large percentage of copper. Whilst a metal with a comparatively low melting point would need a spelter with a smaller proportion of copper and a larger zinc content.

The best results are obtained by mixing an equal quantity of powdered borax with the spelter. The borax will be found easier to pulverise if it is first heated slightly.

The rest of the procedure is the same as that for hard soldering, except that a hot metal rod is used to transfer the spelter to the joint.

After hard soldering or brazing the work should not be quenched in water, but allowed to cool slowly.

Finally, there is the " sweated " joint. Sweating is soft soldering without the use of a bit, the jointing surfaces first being given a thin film of solder, and then heated whilst being held rigidly together. Another method is to heat the joint and apply the solder whilst it is being kept hot, as in the case of hard soldering.

Both these systems make quite strong joints, and are very convenient where lack of space prohibits the use of a bit.

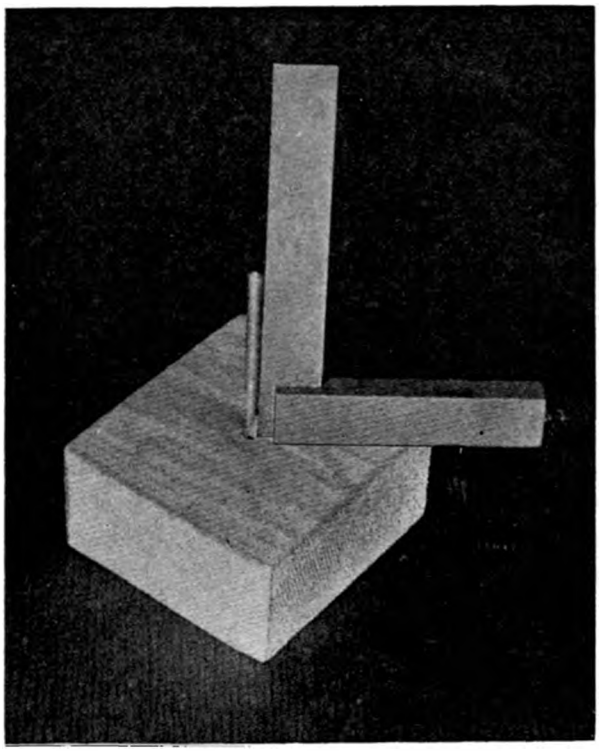
In conclusion, let it be borne in mind that the secret of successful soldering is to have a clean joint, sufficient heat, and, as in all stages of model aircraft construction, an unlimited supply of patience!

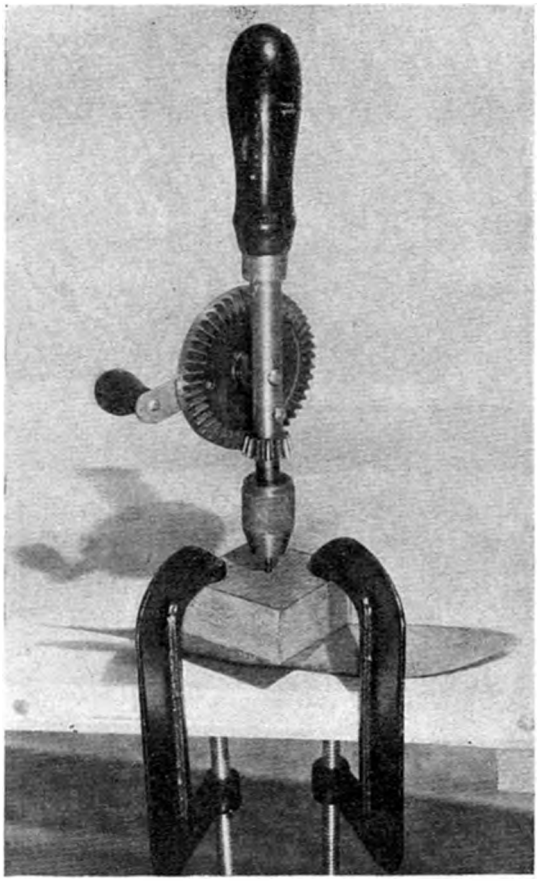
A DRILLING JIG

By S. H. RUTHERFORD, A.M.Inst. E.

AT a time when I had no drilling machine or lathe I devised the following method of drilling holes truly perpendicular to the surface of a job, and used it successfully for drilling such things as propellers and wheels, which must essentially run truly on their spindles.

A piece of hard wood about 2 in. square by 1 in. thick was first drilled as truly as possible through the centre with a twist drill of the size required for the final hole, held in a hand brace. One surface of the wood block was then filed or chiselled up truly perpendicular to the hole, testing for accuracy by inserting the drill in the hole with its shank projecting on the prepared side of the block, and holding a square against it at several positions.





When the surface had been trued up the block was laid on the surface to be drilled with its true surface in contact with the job, and with the hole over the spot to be drilled. The block was then clamped in position and the job drilled by feeding the drill, held in the hand brace, through the hole in the block.

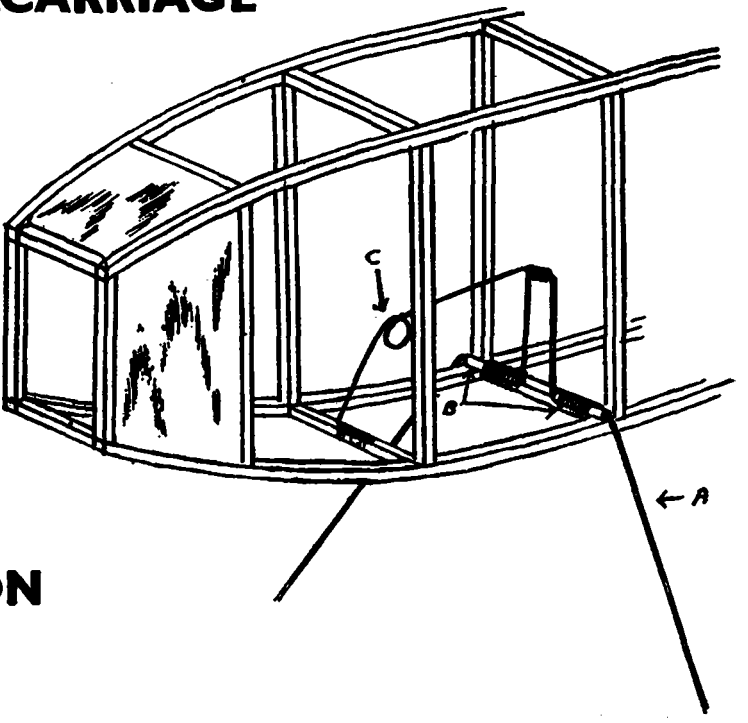
If care is exercised throughout the operation the hole will be found to be truly perpendicular to the surface of the job.

SOME MORE GADGETS—

A VERY SIMPLE UNDERCARRIAGE

By C. BROWN

THE main legs (A) should be bent to the correct shape, and while doing this the brass tubes (B) and the spring (C) should be slipped on. Next these are manœuvred into position inside the fuselage, and the brass tubes bound and cemented to the appropriate spacer. All that now remains is to bind the end of the spring (C) to the spacer and the undercart is complete. Balsa fillets may be added to all the joints at the maker's discretion to make an extra strong job. The legs (A) should be 18 S.W.G. wire for medium weight and 16 S.W.G. for Wakefield machines. A balsa fairing around the legs will still further improve the appearance.



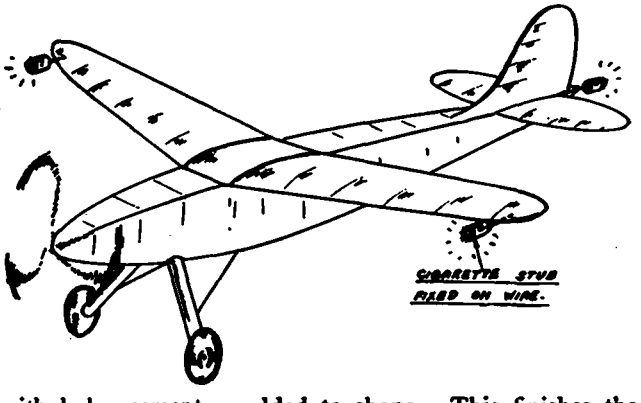
NAVIGATION LIGHTS ON MODEL AIRCRAFT

By GEO. WHITFIELD

HERE is a simple and cheap method of fixing navigational lights to a model aeroplane.

The lights are fitted in three places, one on each wingtip and one at the tail.

The wing lights are assembled as follows:—Into the leading edge of each wing, about 1 in. from the tip, a length of wire of 1½ inches is fixed. These are cemented firmly, and may be "faired into" the leading edge



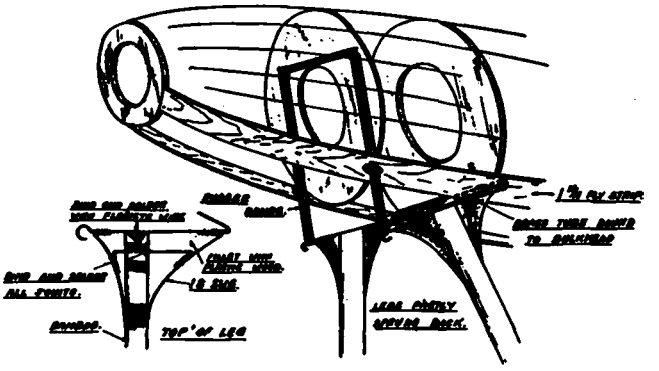
with balsa cement moulded to shape. This finishes the wings, and now for the tail light. This is assembled in the same manner as the wing lights; only the wire is cemented into the tail block, and, of course, faired off.

To use the lights you simply cut a cigarette into three parts, light each part, and then push it on to the wire at the wing tips and tail.

There is certainly no danger of fire, but if you are frightened, wet the parts of the model near the cigarette end, and all will be well.

ANOTHER UNDER-CARRIAGE

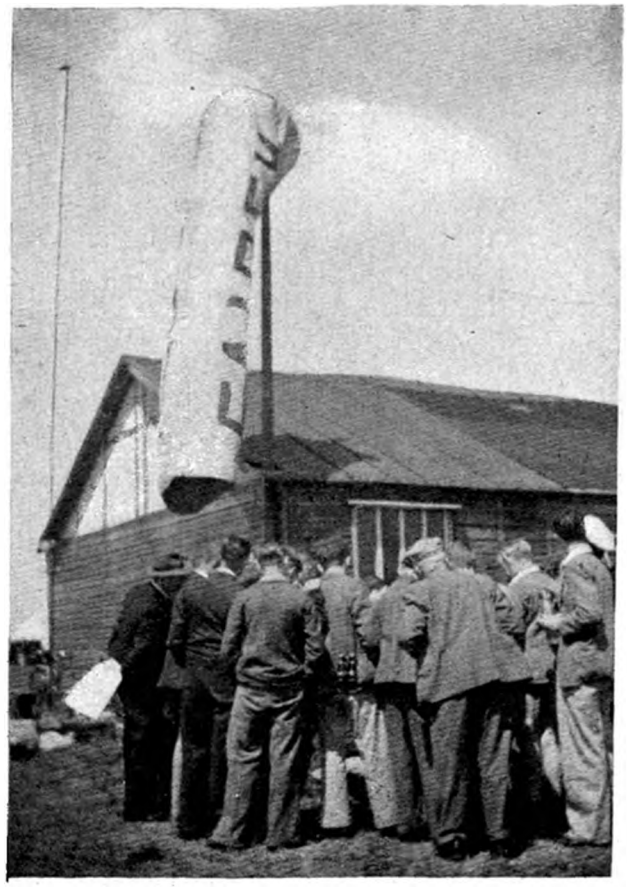
By G. HORTON



THE bamboo legs are filleted at the top with wire, as shown. The rear corner of the fillet goes into the brass tubing which is bound to the bulkhead. This allows the legs to swing backwards, but the front fillet ends in a hook which is attached by bands to hooks in another bulkhead. Thus the backward swing of the legs on striking any obstacle is taken by the bands.

After finishing wire work fix leg on to the fuselage through a piece of paper, so as to mould a perfect streamline fillet on to the body. This may be taken off and the excess paper trimmed. Finally finish with sandpaper and dope.

AT THE SIGN OF THE WINDSOCK



IN mentioning the new catalogue of the Premier Aero model Supplies last month we omitted to mention the fact that in addition to several designs by Mr. C. A. Rippon, the catalogue contains details of three models designed by the British record holder, Bob Copland. The Northern Star must be one of the most popular models in the country, and is the winner of many a club contest. The G.B.3 is the model which established for Bob his British R.O.G. record of 33 min. and also helped Great Britain to win the King Peter Cup in 1938. The third of the trio is the Starlet, which is a small model, and may be flown indoors, out of doors or round the pole.

All these kits are very complete and make up into very attractive models. Premier, whose address is 2A Hornsey Rise, London, N.19, are also the sole manufacturers of the famous Run-true bobbins. Their catalogue should prove of interest to many of our readers.

* * * * * *

A new catalogue to hand is that of Cloud Model Aircraft, of 304 High Street, Dorking, which now has 30 pages and 40 illustrations for the sum of 3d. At the beginning of the catalogue is an excellent article, " Hints on Building and Flying Models," by R. J. O'Neil, who is responsible for designing a number of the models in the catalogue. Two recent petrol 'planes are " The Clipper," a 6 ft. wing span kit at 39s. 6d., and the Amco " Golden Eagle," designed for small engines, at 30s. Cloud also ask us to draw special attention to the fact that they are now sole distributing agents in the British Isles for Nathan Smith's coils, condensers and other products of this well-known firm.

New accessories which Cloud have just put out are " Silver Streak," a new waterproof metallic finish for silk or paper; larger sizes in brass tube, aluminium tube and steel wire, and the new super " Mark Time " timer. Cloud claim that they are the first firm in the country to market this new timer, which weighs only 1½ oz., and times 0 to 120 sec. The price is 12s. 6d.

* * * * * *

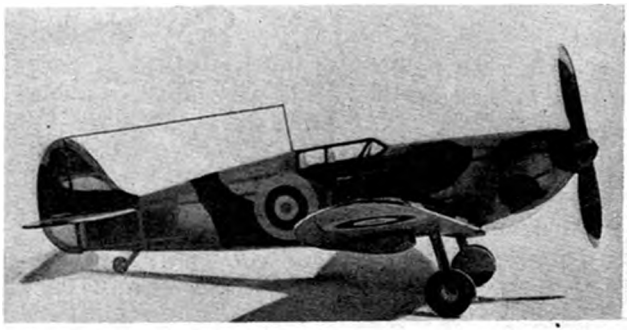
Latest addition to the Cloud range of models is the Leopard Moth. Designed by S. R. Crow, this model holds the rise-off-ground British record of 1 minute 49 seconds. The scale is 1 in. to 1 ft., giving a span of 36 in. in the model. We have had one of the kits for building this model, and, having examined same, are pleased to report that it is of very good quality. All ribs, bulkheads and certain fairing pieces are clearly marked on first quality balsa. The propeller is completely finished, and nicely balanced. Ample supplies of tissue, cement, rubber lubricant and strip material are included in this kit, which we can thoroughly recommend to all but complete novices. For these latter there are a number of models to choose from, full particulars of which appear on Cloud's full page advertisement on the back page of this issue.

* * * * * *

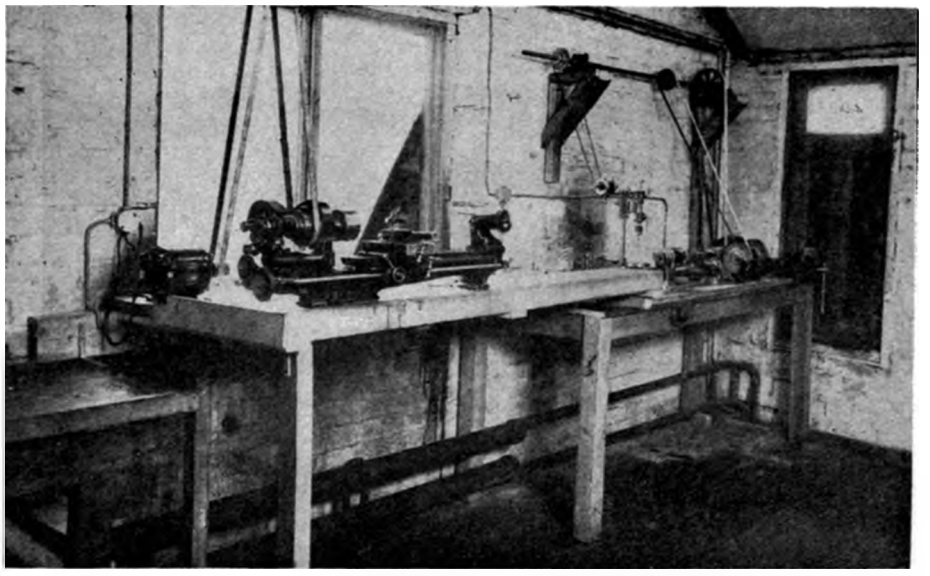
Last month our Test Pilot reported on a model of " White Wings " which he had built from a kit supplied by the Model Aerodrome, 144 Stratford Road, Birmingham. Unfortunately it was not possible to include the usual advertisement which appears opposite these reports. However, Model Aerodrome advertisement dealing with this model appears on page 670 of this issue. " White Wings " is one of the nicest models we have tested, and as the kit is priced at a figure within the reach of all aero-modellists, we have no doubt but that many of these little models will be built and flown before the season is over.

* * * * * *

On page 660 appears an advertisement of A. M. Sweeten Ltd., of 38 Bank Hey Street, Blackpool. This firm specialises in flying scale model kits, the latest of which is just out, and is of the Supermarine " Spitfire " shown herewith. Span is nearly 17 in. and length is



18½ in. We have examined one of these kits, and were impressed with its completeness. Sweetens tell us that it is of entirely British manufacture. All ribs, bulkheads, etc., are clearly marked on first-grade balsa. Cement and tissue fixative are supplied, and a partly finished propeller. Finished wheels, hubs and two pieces of transparent material for the cabin top. A full set of latest R.A.F. circles is supplied, and sheets of tissue in an attractive shade of brown. The model will make up very attractively, and we understand is capable of giving a good performance. As a replica of one of Britain's fastest fighters, we expect that many young aero-modellers will build up this model. Full instructions, with a booklet of hints and tips, are also included with the kit.



* * * * * *

The photograph above shows a corner of the large repair workshop recently equipped by the Model Aircraft Stores (Bournemouth) Ltd., of 127b Hankinson Road, Bournemouth. This firm has always specialised in catering for the petrol 'plane enthusiast, and this latest addition to its works is further evidence of its desire to support this branch of model aeronautics as widely as possible. All types of model aircraft engines are serviced from a large stock of spares, so that prompt attention is assured. Estimates for repairs and overhauls will be given free. With the flying season coming to an end, now is a good time to get one's engine serviced. Several new models have recently been introduced by the Bournemouth firm, of which full particulars are given in their advertisement on the front inside cover page of this issue.

* * * * * *

On page 666 appears an advertisement of Studiette Handcrafts, of Kent Street, Birmingham. This firm offers a wide range of the well-known British-made " Dixon-Scalecraft " solid scale kits, a number of flying scale kits, and a large range of accessories. A coupon is attached to the advertisement, which, if filled in and posted to Studiette, will bring in return a copy of Studiette's latest catalogue and address of nearest agent from whom supplies of these products can be obtained. A " shadow-shading " camouflage outfit, for scale models, is offered at a low price; and a set of R.A.F. circles, from ¾ in. to 2½ in. diameter, is another attractive feature advertised.

* * * * * *

Messrs. Turnbridge Manufacturing and Supply Co. Ltd., 52a/62a Longley Road, Tooting, London, S.W.17, are regular advertisers in THE AERO-MODELLER, and this month their advertisement appears on page 645. Offering their products under the registered trade name of " Joy," this firm specialises in dopes and pastes of all kinds. Dope for silk, tissue, both clear and coloured; pastes for fixing tissue, balsa and hardwoods. Rubber lubricant, banana oil, waterproof dope and silver dope are also offered in tins at all prices. We have been using several of this firm's products during this season with very satisfactory results. Traders are invited to write for particulars of special kit packs for display purposes, and should refer to Dept. " K."

SPECIAL FEATURES IN NEXT MONTH'S ISSUE

AIRFOILS IV. (R.A.F. 33, R.A.F. 34, CLARK Y.H., N.A.C.A., 2R$_2$12) - *By J. W. B. Cruickshank*
ANOTHER STORY ABOUT JOB - - - - *By Arhur Mountstephens*
A SIMPLE REVOLUTION COUNTER - - - - - *By Douglas Young*
CLUB ACCOUNTS - - - - - - - - *By "Diganos"*
THE AIRSPEED "ENVOY" - - - - - - *By H. J. Towner*
Full particulars of this magnificent 1" to 1' flying scale model, with full list of material, and particulars of plan
TESTING PETROL PLANES - - - *By J. C. Smith, Hon. Comp. Sec., S.M.A.E.*
WHY I AM CARRYING ON WITH MY MODEL-BUILDING - *By C. S. Rushbrooke*
THE MILES "MAGISTER" - - - - - - *By S. A. Linstead*

A FULL-SIZE BLUE PRINT OF THIS MODEL GIVEN AWAY FREE. SCALE ¼ FULL-SIZE = 11½" SPAN. ALL PARTS FULLY DETAILED FOR BUILDING A SOLID SCALE MODEL

CLUB NEWS

By the "CLUBMAN"

Gordon Larson, with a "Comet Zipper" (Brown engine), second place winner, in the recently held American model airplane meet for petrol 'planes.

WELL, fellows, as I write these words we are once again plunged into an unholy mess of war. Where it will end, its effects, and the ultimate good derived are all points not given to any of us to foresee, but I think I shall be a true prophet if I say that those of us in the aero-modelling fraternity who are of an age to undertake national service, are not, and will not, be wanting in doing our duty. Hobbies must go by the board for the time being, and in one respect I would pass on a tip to those of you who have the responsibility of club management and finance in your hands.

Do not, unless conditions warrant, wind up the club completely. I feel that the best method is to straighten the affairs up-to-date, call your committee together, and consign the effects, etc., over to a trusteeship of responsible members until such time as conditions allow the resuming of normal activities. Where possible, it is best to select as trustees those members who would, for one reason or another, be ineligible for active service. When this has been done, advise all your members of the position, and suspend organised activities until further notice.

Naturally, it may not be necessary to be quite as drastic as this in certain instances, especially in clubs where the majority of members and executive are juniors, unaffected by the demands of military service. However, the question has been raised by many worried secretaries, and I pass on the advice for what it is worth. Obviously, it will be practically impossible to run S.M.A.E. events, as timekeepers must be over 18 years of age, and, therefore, mainly liable for a hasty departure.

Well, I don't know what your reactions are, but, being one of those peculiar people known as the "typical Englishman," I've had a hearty bout of cussing, reviewed the position from all angles, and settled down to do my best to get the whole thing over as soon as possible. Think—only another two or three weeks and we'd have finished the competition season! We won't know now who wins the Plugge Cup, etc., and all my beautiful charts have been worked out for nothing! If, for no other reason than that, my foot's aching to give someone a wallop in the pants!

One thing I do feel, however, is a hearty disgust with conditions that suddenly make myself and chaps like Schroeter, and the companions I met at the King Peter Cup event, enemies, looking at each other through the wrong end of a gun. If I am any judge of people, they, as well as I, do not wish to kill the fellows they flew against at Faireys. However, it is not given us ordinary folk to say "yes" or "no," and like us, they have their duty to their own country to do. My one hope is that I may never have to meet one of those chaps with a gun in my hand!

Weather has certainly been more of the stuff we like lately, and one or two figures have been hoisted higher up the scale recently. Do any of you compare the times others put up against your own efforts? Makes some of my efforts look a bit sick in comparison. I'm looking for a type of record that has never been thought of yet, then if I only get a couple of seconds, I'll be a British record holder. Won't that be naice!!

I suppose its no use passing comment on various happenings and decisions made at the last council meeting, as most of these items will perforce be shelved for the time being. I would criticise most heartily, however, the entire lack of both interest and consideration of clubs in the S.E. London area. A club that has the initiative to try and put things on the basis required under the rules recently laid down, deserves at least courtesy, if not consideration, and I am glad to note that a time limit has been placed on the individual representation of such clubs. In fairness to those who are doing their best to put things on a national basis, and carrying out the wishes of the council, I say more power to any move that will bring to an end the indolence—I might almost say "insolence"—of some of the clubs who should know better.

But let's see what you have all been doing during the period prior to all this upset, starting off with one or

two " latecomers " from last month. I have only included the most interesting of these, it obviously being unfair to those who keep to schedule to take space for those who are too dilatory to keep up to time.

First comes a report of an open meeting staged by the MACCLESFIELD M.A.S., which took place on July 30th, and was, in consequence, too late for report in the last issue. Owing to a misunderstanding, the date clashed with a similar meeting of the Bolton club, and attendance suffered in consequence. Members of the Lanc. M.A.S. took most of the honours, with Mr. F. Bailey of this club lifting the championship of the day. together with the John Taylor Cup. Full results were :—

EVENT 1.
H.L. DURATION. (Average of 2 flights).
1. A. A. Mills (Lancs.) ... ... 91·25 sec.
2. J. Horritt (Stockport) ... ... 91·2 ,,
3. F. Bailey (Lancs.) ... ... 78·0 ,,

EVENT 2.
R.O.G. WAKEFIELD. (Average of 3 flights).
1. A Hemmingway (Sheffield) ... 45·3 sec.
2. H. Hill (Lancs.) ... ... 41·06 ,,
3. E. Heath (Macclesfield) ... 16·6 ,,

EVENT 2a.
EXTRA EVENT. R.O.G. OPEN. (Average of 3 flights).
1. C. Martin (Macclesfield) ... 86·66 sec.
2. F. Bailey (Lancs.) ... ... 75·0 ,,
3. J. Williamson ... ... 58·46 ,,

EVENT 3.
GLIDING. (Average of 2 flights).
1. F. Bailey (Lancs.) ... ... 20·5 sec.
2. W. Holland (Macclesfield) ... 11·0 ,,
3. C. Martin (Macclesfield) ... 8·75 ,,

CHAMPION OF THE RALLY FOR THE JOHN TAYLOR CUP.
F. Bailey (Lancs.) ... ... 9 points.

J. G. Eifflander put up a flight of 18 min. 3 sec. a few days after the open meeting, giving the lie to some caustic remarks made about the ground! It was hoped to run a special inter-club event for a fine 15 guinea cup, in conjunction with the Lancs. M.A.S.

Another open meeting was that held by the MILDENHALL M.A.C., the weather being all that was desired. (Sounds strange saying that, after all the frousy conditions we have had this year!)

Quite a few flights during the rally were timed O.O.S., the best being 6 min. 2·6 sec. by F/Sgt. Darling of the home club (unfair advantage).

The final results were as follows :—

No. 1 EVENT.
(GAMAGE RULES). 41 Entries.
SENIORS.
1. F/Sgt. Darling (M'hall M.A.C.) ... 242 sec.
2. Mr. A. Hodson (Clare M.A.C.) ... 131·5 ,,
3. Mr. K. Willoughby (Cambs. M.A.C.) 125·5 ,,

JUNIORS.
1. J. W. Darling (M'hall M.A.C.) ... 57·5 ,,
2. M. J. Hill (Igranic M.A.C.) ... 14·9 ,,

LADIES.
1. Mrs. Baines (Dagenham M.A.C.) ... 80·6 ,,

No. 2 EVENT.
GLIDING.
1. Mr. W. Baines (Dagenham M.A.C.) 109·6 sec.
2. Mr. Barrett (Unattached) ... ... 86·6 ,,

No. 3 EVENT.
PETROL.
Insufficient Entries.—No Contest.

No. 4 EVENT.
(WESTON RULES). 19 Entries.
1. Mr. A. Hodson (Clare M.A.C.) ... 164·6 sec.
2. F/Sgt. Darling (M'hall M.A.C.) ... 111·8 ,,
3. Mr. R. Hinks (Luton M.A.C.) ... 106·5 ,,

No. 5 EVENT.
TIME LIMIT. (Nearest 30 sec.).
1. Mrs. Darling (M'hall M.A.C.) ... 29·4 sec.
2. Mr. Stroudly ... ... 41·2 ,,
(After Tie).

No. 6 EVENT.
MASSED HAND-LAUNCH.
Last Down ... Mr. Harlow ... Igranic M.A.C.
Lucky Spot ... Mrs. Darling ... M'hall M.A.C.

Mr. Mackenzie, of the BLACKHEATH M.F.C., has had his seaplane British record ratified, the time being 8 min. 16 sec. Fred Gray entered his petrol model in the Hamley Trophy contest, and placed 17th—this with the first test-out of the machine.

Unfortunately, it was not possible to announce the rally of the LUTON AND D.M.A.S. in last month's issue, but the event was run off in perfect weather, with six or seven clubs competing. There were thermals galore, witness the flight made by S. Yelloly of 9 min. o.o.s. (His model, of course! !)

Main events were as follows :—

No. 1.
OPEN DURATION. (Any Type Model).
Average 2 flights.
1. S. Yelloly (Northern Heights) ... 270·0 sec.
2. J. O. Young (Harrow) ... ... 190·8 ,,
3. Sam Collins (Northern Heights) ... 170·0 ,,

No. 2.
DURATION. (Wakefield Type).
Average 3 flights.
1. Ivor Hall (Northern Heights) ... 160·5 sec.
2. E. W. Evans (Luton) ... ... 156·8 ,,
3. L. J. Rowell (—?—) ... ... 156·0 ,,

No. 3.
GLIDING CONTEST.
1. B. Smith (Luton) ... ... 141·6 sec.
2. Mr. Baines (Dagenham) ... ... 124·3 ,,
3. Ivor Hall (Northern Heights) ... 122·6 ,,

Really, some of you make me weep tears of berlood. After admitting that the " error would have been avoided if he had sent in the proper address," ye secretary of the EDINBURGH M.F.C. complains that the incorrect details were given in the club list last month. However, always willing to oblige, I give here the correct name and address to which all correspondence for this club should be addressed : A. C. Warwick, 4 Hermand Crescent, Edinburgh II.

A splendid day out was enjoyed by members of the BRIGHTON AND DISTRICT M.A.C. at Rye, where an inter-club contest took place with the Rye A.M.C. Results were as follows :—

EVENT 1.
NEAREST 50 SECONDS.

1. H. Towner (Brighton) ... ... 49⅘ sec.

EVENT 2.
OPEN DURATION.

A. Sanders (Rye) ... ... average 111⅜ sec.

EVENT 3.
INTER-CLUB CONTEST.

1. Brighton ... ... 646 sec.
2. Rye ... ... 488 ,,

EVENT 4.
CONCOURS D'ELEGANCE.
(1) *Flying Models*

1. H. Towner ... ... Brighton
2. J. Tugwell ... ... Brighton

(2) *Scale Models.*

1. H. Towner ... ... Brighton

My attention has been drawn to another mistake in the list of Plugge Cup positions, recently printed, the HAYES AND D.M.A.C. claiming to have scored 76 points in the Weston Cup event. I am sorry this error has been made Hayes, but can only repeat that I printed the list as supplied by the S.M.A.E., and correction must finally come from them. A visit to the Brighton club brought many successes, the club winning the inter-club event, with Mr. Gathercole putting up the best time of the day with a flight of 5½ minutes. Mr. Coxall won the South Coast Petrol Trophy, this being his umpteenth success in this class.

The CHELMSFORD S.M.E. have compensated the loss of half of their flying ground by collecting a few thermals; L. Appleton, contacting one of these, and raising the club biplane figure to 61 sec., while R. Smith made a H.L. glide of 48 sec.

Mr. K. Whitelegg, of the BROMLEY M.A.C., has won the club " Treasurer's Cup " event with an average time of 57·4 sec., Messrs. L. Smith and F. Lawrence being the runners-up, the latter placed sixth in the Bowden Trophy.

Interesting news comes from the TUNBRIDGE WELLS M.A.C. of a gadget for reducing engine speed after the initial climb, also an electro-magnetic controlled rudder, a second time switch actuating the gadget, giving left, right and neutral direction.

The SOUTHWICK M.A.C. held its annual Gala Day on August 18th.

The weather was ideal for flying, and a great crowd witnessed some interesting events. The last event of the day was a " visitors' " race, which proved a great attraction, the prize being a " kit."

Appended are the events and results:

Event.	Winner.	Sec.
1. Massed Launch	J. Cook ...	108·75
2. Glider Cup	H. W. Dearing	88·2
3. Massed Launch	P. Awcock ...	98
4. Ladies' Cup (4th round)	Mrs. Dearing ...	101·5
5. Heavy-weight Duration	A. Coughtrey ...	127
6. Team Race	J. Cook's team	655
	F. Serase's team	369
7. R.O.G. (longest duration)	L. Williard .:.	78
8. Visitors' Race	Mrs. Tuohy ...	71
9. Free Lance Cup ...	P. Awcock ...	125·5

In event No. 6 (Team Race) Mr. A. Hart, flying a Cloud Zenith, obtained a flight of eight minutes o.o.s.

Four members of the LEEDS M.F.C. travelled down to London for the Bowden and Shelley events, Mr. Reason keeping up his good form. Certain criticisms are made of the way in which the events were conducted —other reports amplify the criticisms, I may add—the main items being that, though stated in the rules that all machines should be in the enclosures by 11.30 a.m., the enclosures were not even erected until 12.30 p.m. Also, one " well-known person " was allowed to enter the enclosure ten minutes after the official closing. It seems a word or two of explanation is desired somewhere.

A report from the LANCASHIRE M.A.S. emphasises the successes of their members at various open meetings in the area. Unfortunately, owing to illness and other factors, it was not possible at the last minute to get a full team to Fairey's for the National Cup event, only two members flying in the contest. These, however, flew to such good purpose that they put up the best average of the teams present, but some mysterious interpretation of the rules decreed that their times be halved, bringing the position back from first to sixteenth. With the full backing of other clubs in the area, the secretary is to ask for a revision of the published results.

Mr. R. A. Byatt, of the WEST SUSSEX M.A.S., has raised the club H.L. record to 6 min. 20·2 sec., while Mr. Warring's new machine clocked 145, 180 and 205 sec. on its first day out. Nice going. This same machine flew away at the South Coast Gala and landed at Lancing, eight miles away, after an estimated flight of 40 min. Whew! Get your bikes out.

Mr. R. J. Ross, of 59 Normandy Avenue, Barnet, Herts, is desirous of forming a club in his area, and would be pleased if those interested will get in touch with him. He is a past member of the Ealing Club.

On Sunday, July 30th, the WAKEFIELD (YORKS) M.F.C. held the " nearest 45 " competition. The fixture was arranged at short notice, and caught some of the lads unawares. For a change the weather was almost " flyable," and except for the stiff breeze, things went off quite well. The winner was J. Bennett, who put up a very close time of 45·7 sec., flying a large new model of his own design. Mr. Ramsden, senior, was a close second with a flight of 46 sec., all the more praiseworthy, as he was flying his biplane, which seems to be about the most successful model he has yet built.

The WOKING AND D.M.A.C. held an inter-club meeting with the Farnborough Club, and were well and truly cleaned up, only gaining four out of ten places—the last!

Another inter-club rally was that held at Herne Bay, and attended by members of the WHITSTABLE. TANKERTON AND D.M.A.C. Results were:

LIGHT-WEIGHT CLASS.

1. R. Crutcher, Herne Bay Club.
2. D. Rush, Whitstable Club.
3. V. Smeed, Herne Bay Club.

HEAVY-WEIGHT CLASS.

1. C. Griggs, Herne Bay Club.
2. G. Widdow, Whitstable Club.
3. P. Balfour, Herne Bay Club.

At a later meeting G. Stevenson won the President's Cup, with P. Duncher winning the Junior Cup.

A meeting of the GLOUCESTER DISTRICT M.A.C. on the occasion of their second anniversary brought many visitors, the results of contests being:

TIME LAUNCH.

10 sec. motor run in hand, then 30 sec. flight (40 sec. in all), winner nearest this time.

	sec.
1. I. Newman, Gloucester	40
2. T. Morgan, Cardiff	39
3. K. G. Sims, Cardiff	37·5

MASS LAUNCH.

1. H. Davis, Gloucester. 'Plane lost o.o.s.
2. K. G. Sims, Cardiff.
3. Lee, Bristol.

OPEN DURATION H.L. Average three flights.

1. Howse, Bristol	113·6
2. Holland, Gloucester	105·7
3. Lee, Bristol	103·8

SPOT LANDING.

(Nearest mark 100 yd. down wind).

	yd.
1. Holland, Gloucester	5
2. Watkins, Cardiff	21
3. Dickens, senior, Bristol	25

Gloucester 11 points, Cardiff 7 points, Bristol 6 points.

Mr. Crewdson, of the WOLVERHAMPTON M.A.C., has put up two new biplane figures for the club—H.L. at 86 sec. and R.O.G. at 80 sec. A fine "action" photo is sent in of Mr. Pugh launching his model. Note the agonised expression on his "duece and ace."

Mr. Taylor, of the KINGSTON AND D.M.F.C., has also been biplaning to good effect, his times being H.L. 98 sec. and R.O.G. 104 sec. This club came third in the National Cup event.

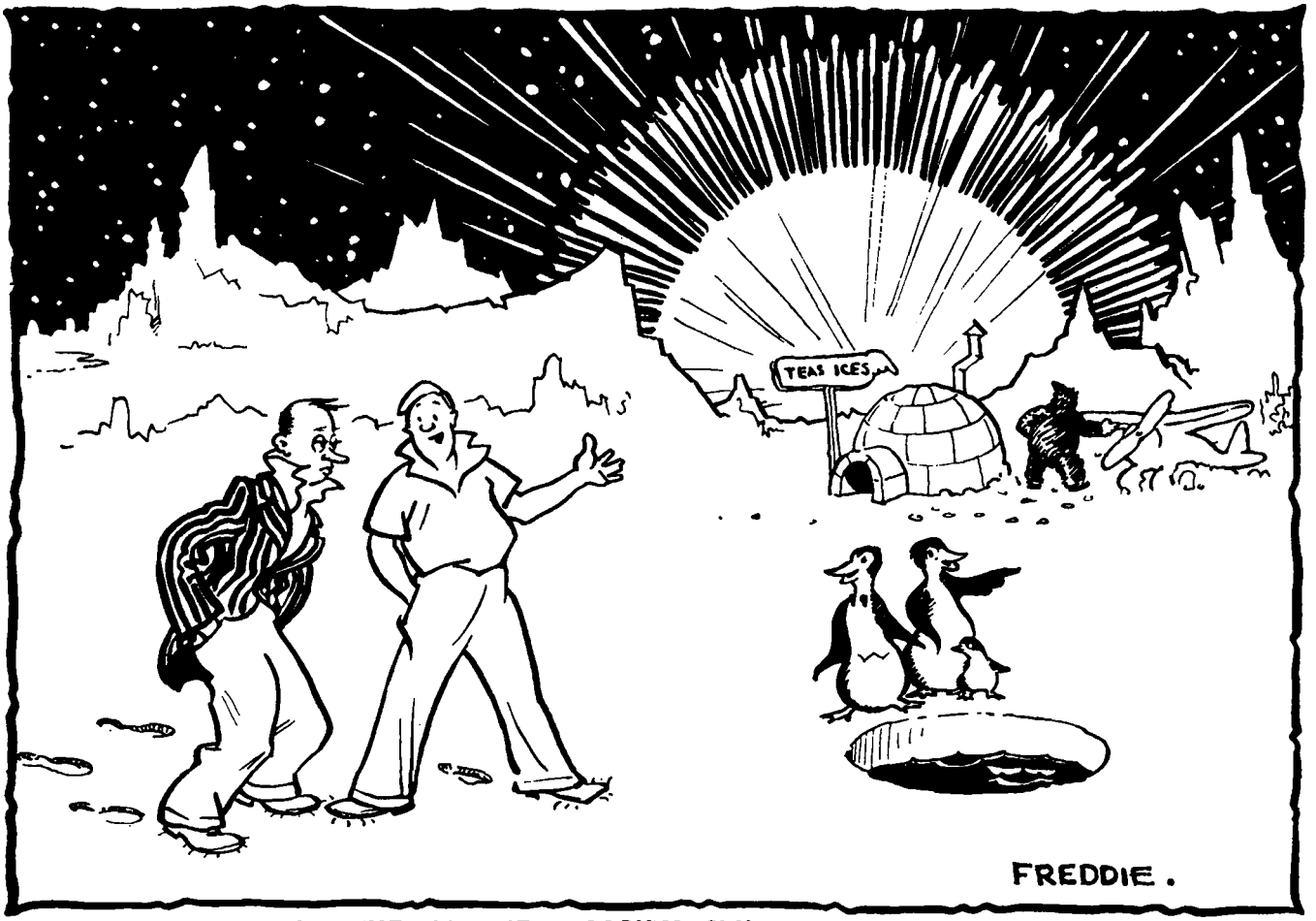
Mr. Trotter, of the SCUNTHORPE M.A.C., won the club's Sherman Trophy with an average time of 68·2 sec., the runers-up being Mr. D. Allen, 53·6 sec., and Mr. S. Allen, 50·6 sec. Mr. Trotter lifted the club H.L. record to 76·6 sec.

Occupation of a new flying field by the TROWBRIDGE AND D.M.A.C. has brought new life into things, Mr. V. D. Wilkins winning two competitions off the reel. Mr. Dallimore won the event for straight flying.

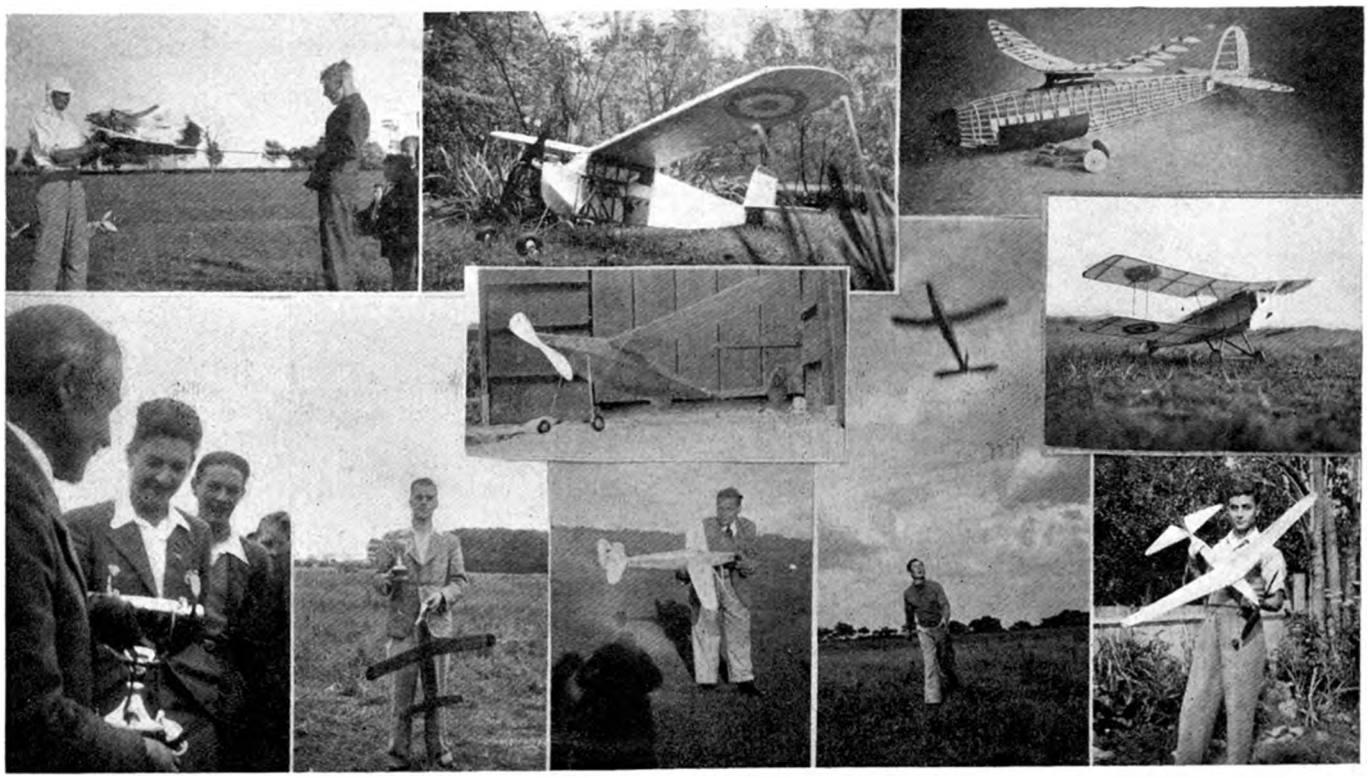
Good weather has seen records broken in the MANSTON AND D.M.A.C. as follows:

		sec.
H.L. (under 200 in. class)	R. Appleton	115
Under 100 in. class ...	E. Brenelley... ...	65
Over 200 in. class ...	P. Bartlett	105

At Dunfermline the FIFE M.A.C., in conjunction with the Dunfermline Model Flying Club, held an open duration competition, open to all Scottish model builders. The day was dull, damp and windy, with no signs of thermals, but twenty-five competitors turned up from six different clubs, and the competition was underway



"THAT CHAP FROM THE NORTHERN LIGHTS CLUB MAY HAVE SEEN YOUR MODEL"



(Top left to bottom right) Members of the North Coventry Club winding up a pick-a-back model. Petrol 'planes built by Mr. Crooks, of Stockton. A special Wakefield model, with separate detachable undercart, built by Mr. L. A. Smith, of Bromley M.A.C.
Mr. Alexander, of the Fife Club, receives a cup. Mr. Trotter, of Scunthorpe, received one too! In centre we have Mr. Fenconi, of the Croydon Club, with his 50 in. span low-wing 'plane, and on right Mr. H. Khan with a nice-looking model. The two models in the centre are a "Diamond" built by Mr. Valler, of the Manston Club, and a Scale S.E.5 built by Mr. Tittering, of Ashton.

by 11.30. By 3 o'clock all the flights were over and the results were found to be as follows:

	Av. sec.
1. D. Valentine, Dundee Model Aero Club	94·9
2. D. Speedie, Fife Model Aero Club ...	91·6
3. W. Murray, Fife Model Aero Club ...	82·0
4. W. Paterson, Fife Model Aero Club ...	81·2
5. C. Alexander, Edinburgh Model Flying Club	78·9
6. C. Whittet, Dundee Model Aero Club ...	67·4

The first prize was a silver cup, presented with a replica.

The ASHTON AND D.M.A.C. started August well by winning the Team Cup at the Bolton Rally, the team consisting of Messrs. Brown, Jackson and Wyatt. Jackson has since made an outstanding flight of over nine miles.

The NORTHERN HEIGHTS M.F.C. are to be congratulated on having three members in the King Peter Cup team, Mr. Cox being the best performer in the whole English team. This club entertained the visiting teams for an evening, and a very good time was spent by all accounts. Bob Copland has since made the best showing in the Wakefield finals in America, and Bunny Ross gained second place in both the Bowden and Shelley Cup events. I doubt if many clubs can claim such a record as this. It was hoped to send Messrs. Cox and Bell to the Belgian meeting, but I fear me circumstances will prevent.

I am asked, under pain of the poor Press secretary getting the bird from his members, to print some mention of the VICTORIA M.A.C. This club has now four cups in its possession, and wish to know when the indoor season starts at the Albert Hall. Ask me another, Vic.!

And yet more records to go. Mr. Fisher, of the FARNHAM M.A.C., holds the H.L. time at 92 sec., with Mr. Robins collecting the glider record with a time of 145 sec.

Mr. Able, of the CROYDON AND D.M.A.C., raised the club petrol record to 14 min. 45 sec. o.o.s. on a one minute motor run. At Brighton Mr. Wallens made a flight of 93·9 sec. with a motor run of 29·9 sec., while Mr. Hills raised his Pusher record to 95·2 sec. From now on diplomas are to be awarded to members winning competitions and breaking records.

The first rally of the WESTWOOD M.A.C. was a grand success in spite of the high winds which caused much damage and also caused the winning results to appear very low. It was attended by Grimsby, Ilkley, York, Darlington, and Leeds. Mr. Prankett, of York, lost his model, a Golden Eagle, after 141 sec. o.o.s., and it has not yet been found. Mr. Townsend, of Ilkley, lost his model in the town after 104 sec. o.o.s., but this was found and returned to him within a week, having suffered no damage at all. The results were as follows:

GLIDERS.

1. R. T. Ragg, Westwood, 26·9 sec., av. of 8.
2. A. Hare, Westwood, 25 sec.
3. R. T. Ragg, Westwood, 16·5

Mr. E. W. Evans, of the NORTHAMPTON M.A.C., has been showing the way round with his new "Victrace," which has been putting up very consistent times of about 4½ minutes. How does he do it? Mr. N. Fowler broke the British H.L. scale record with his 82 in. B.A. Swallow with a time of 98·6 sec. That makes two British records held by this club now. Ain't they good! An "own design" competition resulted in a win for R. Barker with his "Skylark," P. T. R. Peach coming second with his "Diddu"—which did do but don' now!!

An open competition staged by the GAINSBOROUGH M.A.C. was favoured with perfect weather, so good, in fact, that the best flight of the day, made by Mr. Rockell, at 7 min. 45 sec., landed only 100 yards from the start. Results were :—

UNDER 150 SQ. IN. (Average of 3 flights).

		sec.
1.	W. Rockell (Gainsborough) ...	225·13
2.	G. N. B. Lingard (Gainsborough) ...	107·4
3.	T. Staniforth (Gainsborough) ...	84·7

OPEN. (Average of 3 flights).

		sec.
1.	R. T. Pacey (Retford)	85·4
2.	G. N. B. Lingard (Gainsborough)...	81·6
3.	H. Hodson (Retford)	77·2

NEAREST TO 45 SEC. (1 flight).

		sec.
1.	G. N. B. Lingard (Gainsborough)...	45·2
2.	A. Hodson (Retford)	43·0
3.	R. T. Pacey (Retford)	52·0

Several club records of the BARNES AND D.M.A.S. have gone by the board during the recent fine spell, viz.: H.L., 6 min. 51 sec., by Mr. W. Cumber; H.L. Biplane, 99 sec., by Mr. J. D. Taylor; and R.O.G. Biplane, 99 sec., by Mr. W. W. Preston.

The CHEAM M.A.C. are progressing steadily, the membership now being over 80. Mr. Newbronner has presented the club with a cup for indoor flying, this being won by A. R. R. Spencer. Mr. P. Kelsey has been doing some speed flying round the pole.

Mr. W. Smith, formerly secretary of the Midland club, and now secretary to the PETERBOROUGH M.A.C., has set up several club records for the rest to smack at. They are :—

150 in. class	3 min.	6 sec.
Biplane H.L.	1 ,,	51 ,,
Biplane R.O.G.	1 ,,	31 ,,

Mrs. Smith has set up 111 sec. H.L. and 102 sec. R.O.G. in the light-weight class.

W. O. B. Smee, of the CHIGWELL AND D.M.A.C., lost his machine after a flight of 30 min. This model was illustrated on page 572 of the August issue.

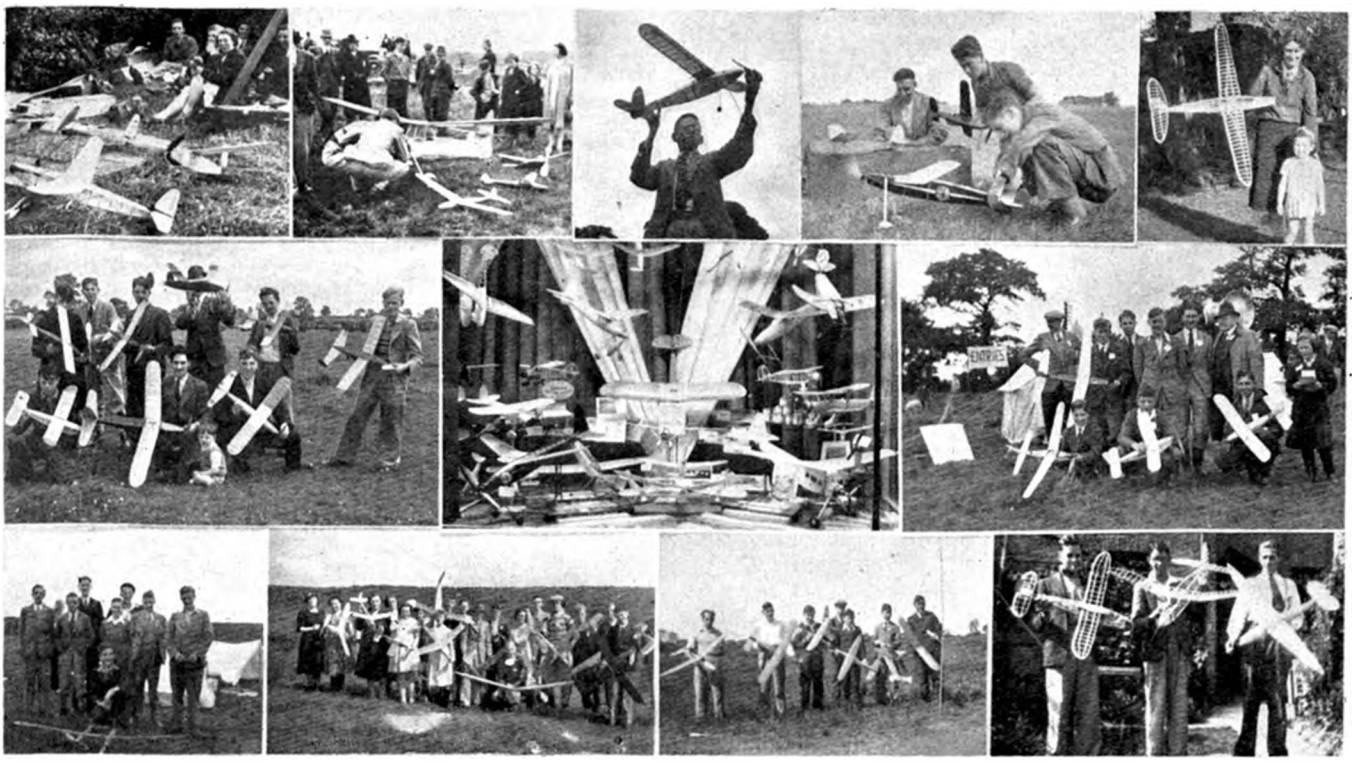
Competition results of the BRADFORD M.A.C. were :—

HAND-LAUNCHED GLIDING.

		Average.
1.	K. Wright ("Thor")	46·9 sec.
2.	— Birchall ("Buzzard") ...	39·9 ,,
3.	L. Silvio ("Chasteneuf") ...	34·7 ,,

JUNIOR.

		Average.
1.	F. K. Gosling (average 3 flights)	18·1 sec.
2.	T. Hart ("Adonis") ,, 3 ,,	15·9 ,,



In this group we have, at top left, members of the Croydon Club "in the woods," and next two photos from the Bolton Rally. Next some members of the Whitstable Club, and on right a "Dolphin" built by Mr. Tunstead from plans given in THE AERO-MODELLER. *In the centre row we have members of the Nuneaton and Macclesfield Clubs either side of a photo from the North Coventry Club's Exhibition; and at bottom, photos sent from the Swindon, Bolton, Chelmsford, and Leyton Clubs.*

TOW-LAUNCHED GLIDING. (F.A.I. Ruling).

	Average.
1. K. Wright ("Thor")	45·85 sec.
2. A. W. Cripps ("Tuna") ...	42·0 ,,
3. G. A. Adcock ("Elzbelz") ...	35·5 ,,

The club record for hand-launched gliders was raised on the same date, by Mr. Wright with model "Thor," by a fine flight of 3 min. 17⅘ sec.

The weather favoured our first Annual Rally of the Dagenham M.A.C., and many fine flights were recorded.

The competitions were well supported by the visiting clubs, which resulted in a good day's flying.

The Mayoress of Dagenham presented prizes to the following:

NEAREST FLIGHT TO 40 SEC.

	sec.
1. Mr. Landymore, Hornchurch ...	39
2. Mr. Paynter, Aldersbrook	41·6
3. Mr. Smith, Ilford	36·2

OPEN GLIDING COMPETITION FOR THE DAGENHAM GLIDING TROPHY. (Average of three flights).

	sec.
1. Mr. Baines, Dagenham	78·2
2. Mr. Bowyer, Hornchurch	72·6
3. Mr. Chillcott, Dagenham	69·6

OPEN DURATION COMPETITION FOR THE DAGENHAM OPEN DURATION TROPHY. (Average of two flights).

	sec.
1. Mr. Chillcott, Dagenham	165
2. Mr. Ranson, Dagenham	186
3. Mr. Henderson, Wanstead	122
4. Mr. Collins, Wanstead	112

HEAVY-WEIGHT DURATION COMPETITION. (Average of three flights).

	sec.
1. Mr. Mapleden, Dagenham	78·2
2. Mr. Bowyer, Hornchurch	70·4
3. Mr. Watts, Ilford	61·1

INTER-CLUB TEAM CONTEST FOR DAGENHAM CHALLENGE TROPHY. (Three in a team). Five entries.

	Total points.
1. Dagenham M.A.C.	... 207·5
2. Hackney M.A.C.	... 199·2

Two wrist watches for the two best flights by Dagenham members.

Mr. Chillcott ... ... 5 min. 30 sec.
Mr. Ranson ... ... 8 min. 11 sec.

An interesting competition staged by the TORQUAY AND D.M.A.C. was won by Mr. P. Gregory, who exactly clocked the total required for three flights of 100 sec. and won a fine barometer, presented by Mr Crute.

Ken Bletcher, Press secretary of the WINDSOR (MANCHESTER) M.A.C., advised that he would be handing his job over for the time being, as he was due for conscription. I think you'll have a lot of company, unfortunately. W. H. Hughes, of this club, flew his 82 in. span job for 25½ min. recently. F. Archer flew his version of the same model for 5 min. 50 sec., and was followed by Mr. Seddon, who put up 7 min. 7 sec.

Members of the Sunderland Club, with a good show of models

o.o.s. Mr. Pollitt has made a glider with a fuselage made of Dural, while Bletcher's gas model looks less like a garden gate each week. Mr. Bullock turned up with a tailless job and changed his tune when he tried to fly it.

Recent competitions of the SWINTON AND D.M.A.C. resulted:

HAND-LAUNCHED DURATION.

1. F. Sanderson ... ... Av. 80·28
2. R. Hallsworth ... ... ,, 71·4

BEST FLIGHT OF THE DAY.

E. Bell ... ... 187·14

CONCOUR FOR ANY TYPE OF MODEL.

1. R. Hallsworth.
2. E. Snape.

LIMITED TIME. 28 sec. Av. of two flights.

1. R. Allatt ... ... 28·25
2. D. Wilde ... ... 28·5

It is rumoured in the club that K. Mudie's twin fuselage model may fly some day.

Mr. B. A. Smith, of the WOODFORD M.A.C., has lost three models lately, and holds the R.O.G. record with a flight of 8 min. 2 sec. Mr. A. White holds the H.L. figure at 11 min. 45 sec.

More high times have been seen at the ILFORD AND D.M.A.C., where Mr. R. Haines flew a light-weight for 9 min. 22 sec. o.o.s., while Mr. E. Stoffel has raised the pole times to 35 sec.

An inter-club " league " system instituted in Scotland has possibilities. Fife lead at the moment, followed by Dundee and the Huntley Boys.

So here I am, lads, at the end of yet another club report. Don't forget that so long as Allen House stands and I have something to put my " sit-me-down " on, THE AERO-MODELLER will continue publication. Let me hear in your next reports what arrangements you are all making to carry your clubs on—and I *don't* want to hear from any of those who are permanently closing down!

THE CLUBMAN.

IMPORTANT NOTICE

COPIES OF THIS JOURNAL SHOULD BE ORDERED IN ADVANCE.

Owing to the difficulty of distributing journals in war-time, it is imperative for readers to place definite orders to ensure a regular copy.

To avoid disappointment, place an order with your newsagent, or local model shop, without delay.

SMALL TRADERS' ANNOUNCEMENTS

The charge for these insertions is 5/- each prepaid for a minimum of 30 words, extra words charged at rate of 2d. per word.

BUSINESS AND EDITORIAL ANNOUNCEMENTS

MODEL AIRCRAFT TRADE ASSOCIATION

ADVERTISEMENTS.—THE AERO-MODELLER is recognised as the official journal of the Model Aircraft Trade Association, and reports are published from time to time for the benefit of the members. The policy of the journal is to support the M.A.T.A. in every possible way.

All instructions, matter and blocks for all kinds of advertisements must reach **Allen House, Newarke Street, Leicester,** not later than the 3rd of the month, otherwise we cannot guarantee to provide proofs in time for checking. Passed proofs should be sent direct to our printers, **The Sidney Press, Sidney Road, Bedford,** to arrive not later than the 6th of the month. We reserve the right to hold over until the following issue, if necessary, advertisements or passed proofs thereof received at our printers later than the 6th of the month.

Copy must be supplied without application from the publishers, and current copy and blocks will be repeated if new copy is not received at the time of closing for Press. Advertisement copy is subject to the approval of the publishers. All advertisements and contracts are accepted and made upon the express condition that the publishers have the absolute right to refuse to insert copy to which they may object for legal, public, or trade reasons, which includes the right of rejection of advertisements, whole or part, containing cut prices of goods coming under any price maintenance scheme as approved by the Model Aircraft Trade Association, and such refusal shall not be good ground for advertisers to stop a current contract or to refuse to pay for the same, or for taking action for breach of contract.

REMITTANCES.—Postal orders, cheques, etc., should be made payable to Model Aeronautical Press Ltd., and remittances from abroad should be made by international money order in sterling.

TERMS.—Monthly accounts strictly net.

EDITORIAL.—All communications should be addressed to the Editor, THE AERO-MODELLER, Allen House, Newarke Street, Leicester, and contributions must be accompanied by a stamped addressed envelope for their return in the event of being unsuitable. Whilst every care will be taken of MSS. submitted for consideration, the Editor does not hold himself responsible for safe keeping or safe return of anything submitted for his consideration.

ARTICLES should (preferably) be typed or written on one side of the paper only, and should normally not exceed 1,200-1,400 words.

DRAWINGS should be in Indian ink on white card or linen tracing cloth. Actual size is not important, but the length/width ratio should be 10:7 (for full-page reproduction) and 4½:7 (for half-page reproduction).

PHOTOGRAPHS must have sender's name and address and full description written on the back.

PAYMENT will be made for all articles printed, with an allowance for photographs and drawings (provided the latter are suitable for direct reproduction and do not require redrawing). All articles, drawings and other contributions paid for and published in this journal are the copyright of the publishers, from whom alone authority to republish or reproduce can be obtained.

CHEQUES are posted on on before 15th of the month following publication.

SUBSCRIPTION RATES.—THE AERO-MODELLER will be mailed, post free, to any address in the world for an annual subscription of **8/6.**

TEAR OFF HERE

AFFIX COUPON NO. 1 HERE

AFFIX COUPON NO. 2 HERE

AFFIX COUPON NO. 3 HERE

KEEP THIS COUPON TO ATTACH TO YOUR ENTRY FOR OUR PHOTOGRAPHIC COMPETITION

Coupon No. 4—October

TO THE EDITOR, THE AERO-MODELLER,
ALLEN HOUSE, NEWARKE STREET, LEICESTER

I enclose herewith my entries for your photographic competition. I have read the rules as published on page 621 of the September issue of The Aero-Modeller, and hereby agree to abide by them. I am not a professional photographer. I am the owner of the models shown in the photographs I have entered.

Signed..... Address.....

Made and printed in Great Britain by the Sidney Press Ltd., London and Bedford, for the Proprietors and Publishers, the Model Aeronautical Press Ltd., Allen House, Newarke Street, Leicester. Trade Distributors: Horace Marshall and Son Ltd., Temple House, Tallis Street, London, E.C.4—C1601. Sole agents for Australia and New Zealand: Gordon and Gotch (Australasia) Ltd. Registered at the G.P.O. for transmission by Canadian Magazine Post.