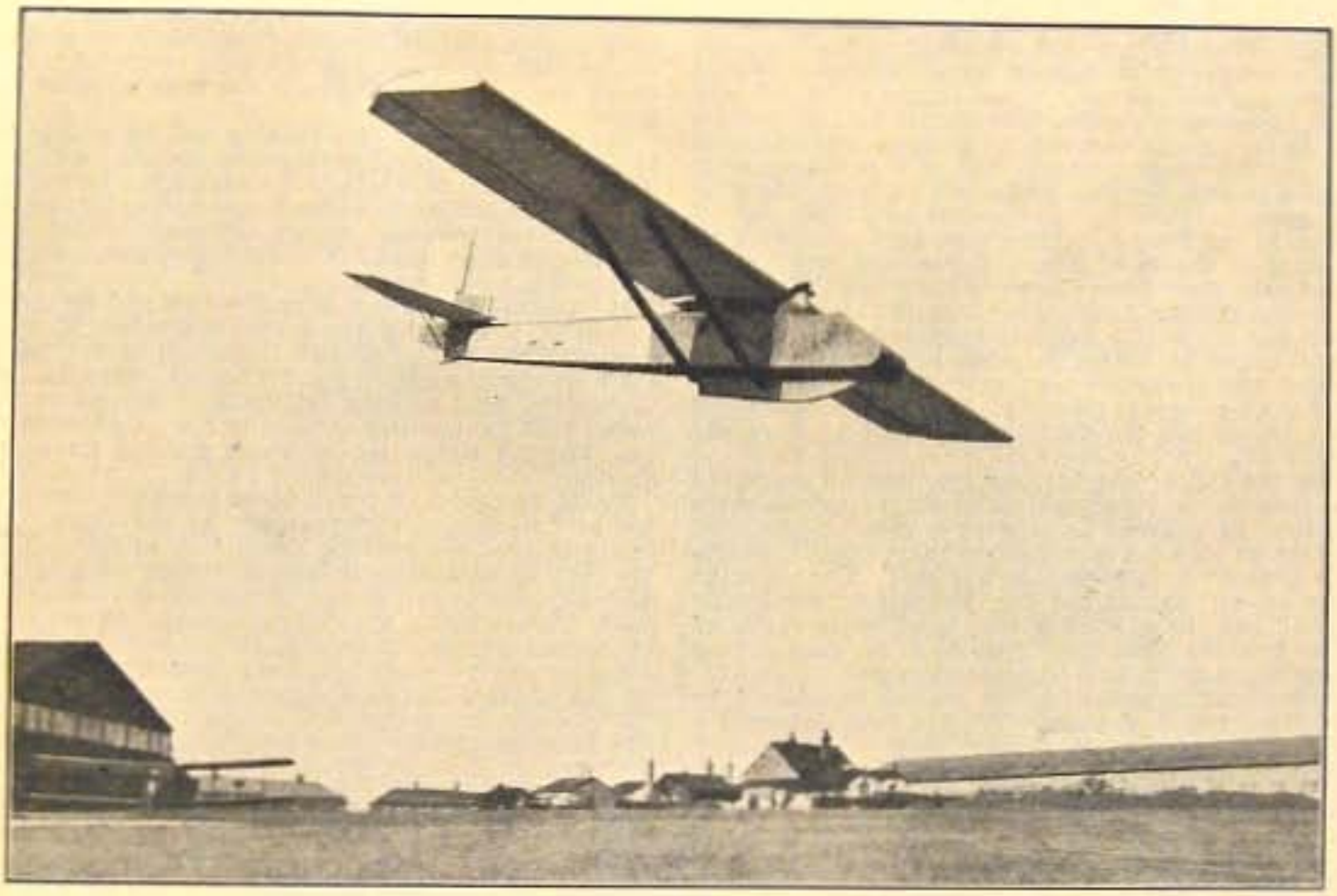
Dec. 5, 1930. Vol. 1. No. 14.

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HOW FAR HAVE WE GOT?

On Dec. 4, 1929, a lunch was held in the Comedy Restaurant, Panton Street, London, at which some sixty people met together; this number was a surprise to the organisers who had expected fifteen and hoped for thirty. The idea of the originators was to form a Gliding Club for the Home Counties in the hope that other Clubs would come into being and eventually a Central body could be formed to co-operate and unify the Movement.

But as a result of the opinions expressed at that Lunch, notably by Col. The Master of Sempill, the formation of a central organisation was decided to offer the most practical method of inaugurating the Gliding Renaissance. As a result of this decision the formation of *The British Gliding Association* was begun. The inaugural meeting of the Association was not held until Mar. 27 when the late Sir Sefton Brancker, its first President, took the Chair.

Rather naturally the enthusiasts, as opposed to the strategists, long before that date, had decided that a central body was not going to give them actual gliding. So in the very early days of this year at least two Clubs had been formed. Most aptly the first glider to be flown was one designed by Mr. Lowe Wylde and built by the Kent Gliding Club. This was flown on Feb. 23.

On Feb. 19 the now famous lecture by Herr Dr. Georgii and Herr Stamer before the Royal Aeronautical Society, of which Colonel Sempill was then President, had taken place. This had made available a mass of useful information which was further increased at the informal dinner which followed two days after, when the lecturers were keenly cross-questioned. At this dinner were a large group of students from the City and Guilds Engineering College who shortly after formed a club and are still, as far as we know, the only student group in this country interested in Gliding.

On Mar. 16 the London Gliding Club held a meeting on level ground at Guildford, where R.F.D. and Kegel types were tried out. Among the pilots was the present Chairman of *The British Gliding Association*. The zeal of the launching teams and the terrific numbers employed, were remarkable. This seems to be the occasion for the telling of a story which has heretofore been carefully hushed up and in telling it we commend those who held their tongues and hid their photos less the Gliding Movement be adversely affected.

Towards the end of the Meeting Mr. Dagnall expressed a wish to glide and very naturally the organisers were anxious that he should. Because of a misunderstanding, and because we were not so careful in those days, a launching team of about 12 on each rope was used. The resultant enormous acceleration caused Mr. Dagnall to completely "black-out" and the spectators were considerably agitated to see the machine climb rapidly up to 50 ft., drop a wing and swing round down wind at a terrific speed.

The consequent impact with the ground was heard by many of those who had already left the field and were a long way off but only a few guessed what had happened. The glider did not survive but the experimenter was only shaken and bruised. This was a valuable lesson and one which those present have not forgotten.

After the formation of The Association, Clubs began to form all over the country. The process was considerably hastened by the action of two big newspapers. The first was an announcement by *The Daily Mail* of its decision to organise a big meeting in the following year (1931) and the second was the bringing to England by *The Daily Express* of Herr Magersuppe. These happenings coincided with the arrival of Herr Kronfeld whose coming had been arranged by *The British Gliding Association*, through the assistance of the Royal Aeronautical Society which has always been most helpful to the new Movement.

The events of the Whitsun week-end at Itford are still fresh in people's minds, so that there is no need to repeat them. We might remark upon the fact that on June 15 Herr Kronfeld flew along the line of the South Downs from Firle to Bedhampton Hill, one mile west of Havant near Portsmouth. This is the longest cross-country flight (about 60 miles) which has ever been achieved in England.

Another milestone was a recent meeting in the North (at Soutergate) which had been organised by the Scarborough and Furness Gliding Clubs. Herr Magersuppe, who is now Instructor to the Scarborough Gliding Club, made over thirteen soaring flights with passengers. Each time he took off from, and landed at, the same place, until he flew the machine down the hill to the appointed spot, for dissassembly. As far as we know nothing has been achieved like this elsewhere. Even in the States they have only refuelled a sailplane when in flight with sandwiches from another glider.

We hear from *The British Gliding Association* that there are now about 100 Clubs in the country, of which 35 are affiliated. Our own files show about 85 names and we have published reports from over fifty.

We should like to say here that if all those Clubs whose reports we have published could ensure that 75 per cent. of their members read The Sailplane, our position would not be so difficult financially. We should welcome any suggestions as to how these non-reading members of Clubs can be reached. Would it be worth while allowing clubs to have lots of fifty Sailplanes at a price which would allow them to make a profit on sales?

We have seen that from scarcely perceptible beginnings in the New Year the Movement has grown until there are Clubs all over the country. The parent body has airworthiness regulations whose success may be gauged from the fact that no accidents have been attributable to faulty design or construction of machines approved by the Inspectors of the Association.

We have a certain number of Certificate holders. According to the last official list published in The Sailplane on Nov. 21 there are now 36. This number is known to have been largely exceeded and in some cases applications are being kept quiet because of competition for the Dagnall Prize.

Another Dagnall Prize.

This naturally side tracks the argument. Mr. Dagnall has given a prize of Ten Pounds to be won by the Gliding Club which secures the greatest number of "A" Certificates between Aug. 15 and Dec. 31, 1930. We have confirmed in conversation with Mr. Dagnall that every "A" ticket secured on a Dagnall Primary machine qualifies for this prize.

Clubs which are in the running will be greatly tempted to have a waiting list of power-pilots who are ready to launch off from the top of a sufficiently high hill. In fact we hear of a Club in the North which has completed all its arrangements for this purpose. Such a tendency will not encourage the gaining of *ab initio* "A" Certificates which are the only Certificates worth getting.

Mr. Dagnall is the first to realise this and we are authorised to tell the Gliding World that in the New Year another Dagnall Prize will be offered. This will be for "*ab initio*" "A" Certificates gained on a Dagnall Primary. We also understand that another prize will be offered to the Club which gets the greatest number of "B" Certificates on the new Dagnall Secondary which is making its appearance shortly.

To return to the main argument there are a certain number of "*ab initio*" pilots trained by the Clubs. No way exists of determining how many "*ab initio*" pilots exist. We shall be pleased to publish a register of these and ask Club Secretaries to forward to this office a list of the "*ab initio*" pilots which they have trained. Envelopes should be marked *ab initio* in the corner.

But of all the pilots who have been trained and among all the Clubs which are operating, there are not twenty "C" Certificate pilots in the country. There are only five who hold Certificates issued by the Royal Aero Club.

The whole aim and object of the Movement is to soar,—and as yet no Englishman on a British or foreign-built machine has exceeded the times put up at Itford in 1922. Not that there is much in duration records. We have often made ourselves quite boring by reiterating the uselessness of duration records. For the moment though we are concerned to show that so little has actually been achieved by Club Members that no Englishman has yet beaten records made eight years ago.

Why is this? We venture to think that the answer is very largely contained within the article which Mr. Flanders has written for The Sailplane this week. Herein one may find what it is that makes soaring possible. The curious thing is that with the exception of "Kentigern," who has made a brief study of Eddies and who has had the advantage of a training at the Wasserkuppe, and of Mr. Horace C. Wright, of the North Cotswold Club, nobody at all has made any examination of wind-currents.

It has all been a question of acquiring sites and obtaining machines. Naturally Herren Kronfeld and Magersuppe know far more than any of us know about the habits of the wind and satisfied themselves that such sites as they have used have been the best possible.

The important fact is that the ordinary Club member and the ordinary Club Committee do not appear to regard this study of the air as important. It is too scientific, too high-brow and not within their province; and unless some interest is taken and some exploration made, there is little hope of the British Clubs putting up any effort to compare with those achieved by our very welcome guests from overseas.

There is plenty of inducement. There are going to be some big prizes during the Summer, such as those put up for *The Daily Mail* Competitions. These will not all be for duration and unless the prizes for distance and altitude are to go to foreigners our pilots had better start trying to find out how to soar.

THIS LAUNCHING PROBLEM.

The North Kent Gliding Club have written to THE SAILPLANE and asked for an opinion of a scheme whereby 25 yards of hempen rope is added to each end of the 60 yards elastic launching rope. The idea is to get all the advantages of a long rope without the necessity of having over 100 yards of elastic rope.

It certainly seems quite a good idea. Obviously there is no need to have the launching crew holding an elastic rope, as its energy-absorbing qualities are only wasted. A long rope has advantages, though, if too long, much energy is wasted in friction by the rope dragging over the brow of the slope.

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THE NEED FOR CHARTING AIR CURRENTS.

By L. Howard Flanders, A.F.R.Ae.S., M.I.Ae.E., A.M.I.Mech.E.

The present Gliding Movement is an imported one. The German Government has spent large sums of money in developing Motorless Flight, and has generously given the record of its work to the World.

In England enthusiasm, engendered by the reports of the work at the Wasserkuppe and the demonstrations promoted by *The British Gliding Association*, has resulted in the formation of many Gliding Clubs. But only a limited number of the 80-odd Clubs that have been formed are taking any real interest in the development of Motorless Flying. Club Committees seem to consider, if they can provide their members with primary training machines in the ratio of one airworthy glider to each 50 members, and promise that when the repairs catch up with the crashes and the full fleet of gliders is available, all members will be able to glide a few seconds a month, that they have done all that is required. A few Clubs go further and are providing intermediate gliders and sailplanes for advanced members. Is this limited outlook of the Clubs sufficient to develop Motorless Flying in the British Isles? The writer thinks not.

At some time in the near future it is probable that Motorless Flying will be so developed that a Club member may learn to soar and make cross-country flights, but the knowledge which is necessary before any Club can provide these facilities is considerable and must be won, step by step, from Nature.

Charts will be necessary giving in all parts of the country the position and force of the rising currents of air for various directions and strengths of wind. On these charts will be marked "safe routes" that the pilot can follow without running into impassable regions of descending air. The production of these charts is a large task, only comparable to the Ordnance Survey of England: yet it is an essential part of the development of Motorless Flying. The work must be begun in small sections in the immediate neighbourhood of the various Clubs; and then extended.

It is probable that the design of sailplanes will have to be modified to suit the climatic and meteorological conditions of this country. The type of wing in which a glued-on covering of plywood is used to give the necessary stiffness is unsuited for this damp climate, unless better housed than is general with Club aircraft. It appears also that a lighter loading is necessary for the South of England.

It was to be hoped that *The British Gliding Association* would have been able to undertake this work, but it seems to confine its energies to the sporting aspect and to importing German methods irrespective of their suitability for the British Temperament or Climate. Therefore it appears that it will fall on the Clubs to do the scientific and research work.

Before outlining the way in which Clubs can carry on the work, let us make a general comparison of Motorless Flying with other branches of aeronautics. In the conquest of the air by power-driven aircraft the weapons which were necessary in the struggle were: mathematics, mechanics, mechanism and money. The result is not so much the "conquest" of the air as the construction of machines which can drive through the air and travel in spite of the forces of Nature.

Whether such "conquest" should be termed a victory or not is open to question. Should it not be termed the forging of weapons by which a ceaseless guerilla warfare can be maintained with considerable success?

Man has fought Nature for countless ages, it has been an unceasing warfare with many casualties, and it is only recently that the idea of using Nature to conquer Nature has been born. The first science to adopt this idea is Medicine; the brute force methods of pills and potions has begun to give way to Sunlight and Psychology. Motorless Flying is the second attempt to use Nature to conquer Nature, and can only be successful when the forces of the air are used to conquer the air.

If the air is to be conquered, that is, made use of and compelled to carry man by its own forces, instead of being fought in continuous warfare by high-powered and expensive machines, then there is much research work to be done.

The rotation of the Earth, gravitational attraction of the Sun and the Moon, and the heat of the Sun, provide an enormous supply of energy, which we are beginning to find is available for our use in flight.

Research Essential.

A study of the flight of birds shows the consistency of air-currents. Migration starts on almost exactly the same day of every year and always takes place under favourable conditions. Soaring flight takes place in given localities and not in others almost irrespective of the wind. It is obvious that we cannot make proper use of this boundless energy in the air until we have studied it, recorded and synthesised all the available facts.

Motorless Flight is dependent on the fact that the air has a vertical component as well as the horizontal (wind). This vertical component, which may be rising or falling, may be considerable (of the order of 30 ft. per sec.) or may be slight. At the present time the sailplane requires a rising vertical component of the air in excess of 3 ft. per sec. if it is to have adequate soarability.

The causes of such vertical components are: geographical, due to the contour of the ground; thermal, due to temperature differences of the surface of the ground; and the rotation of the Earth, which produces the "prevailing westerly wind" in all parts of the Temperate Zone. These three causes are independent. Casual observation over many years has indicated that the conditions are remarkably constant.

The research to be undertaken includes:—

(a) Exploration of air currents caused by contours to find courses for flying from one gliding centre to another, until the whole British Isles are charted for regular cross-country flying.

(b) Investigation into Cloud Sailing and the location of cumulus clouds. It will be found that such clouds are usually formed in certain definite localities because the thermal currents which cause them are produced by definite conditions.

(c) The effect of various winds on (a) and (b). It appears that the prevailing wind is nothing like so prevalent as is supposed.

(d) Whether the greater turbulence of the winds in the British Isles will enable flight to be maintained by the kinetic energy of wind gusts.

(e) The best ratio of sinking speed, gliding angle, and



AS IS NOT DONE IN GERMANY.—The Oxford Glider Club giving tuition by towing.

wing loading for sailplanes to be used in this country. It must not be taken for granted that the best sailplane in Germany will prove the best in the South of England.

It is obvious that (a), (b) and (c) can be attempted by Clubs if the records are carefully made at frequent and regular intervals of time. These records must be consolidated by a central body and issued in a practical and useful form. Each Club should set aside some of its energies to the exploration of the air in the immediate surroundings of its gliding ground.

The direction and velocity of the wind should be taken at the top of the hill at regular intervals simultaneously with measurements of the direction and the vertical component on the various slopes. The points at which the readings are taken should be fixed after some tests to show the most useful positions. The readings should be taken as frequently as possible, consistent with regularity. If possible, these readings should be taken every hour between sunrise and sunset, or at least four times every day.

The instruments need not be costly, an accuracy of ±5% will suffice, a pitot tube or fan type of anemometer, reading down to 1 ft. per sec., will do. Provision should be made to take the horizontal and vertical readings without error of angle to the horizon. The readings should be entered in a book ruled to allow all readings to be entered on one line, which should begin with the date and hour.

Analysis of the readings will show that, for a given wind at the top of the hill, the readings at the other points will be similar to when the wind was blowing from the same direction and with the same velocity on previous occasions, consequently, after a time it will only be necessary to know the wind at the top of the hill to also know the conditions at the other points. When the records are complete, for the first positions chosen, new points may be taken, and in this way the record may be made to cover the district. Free air balloons, kites and smoke may be used to find eddies, which again will be found to be consonant with the readings at the top of the hill and the temperature.

More may be learnt about the soarability of the air in two years by this method than by a similar time spent in haphazard gliding.

Research work under the headings (d), (e) and (f) can only be undertaken by a body like the R.A.E., which would have to be located at a suitable spot like the hill between Frome and Warminster, which has all the necessary requirements: 400 ft. clear height for all wind directions, electric power and water.

Up to the present the only work of this sort that has been done has been carried out by the German Government [or more accurately by the Rhön-Rossitten Gesellschaft, which is subsidised not only by the Government but by industrial and other concerns—Ed.] in the Rhön Mountains and, owing to the broadminded generosity of Dr. Georgii, has been placed at the disposal of the World.

MR. GORDON ENGLAND TO LECTURE AT NOTTINGHAM.

Under "News from The Clubs" will be found details of the important lecture which Mr. Gordon England is giving to the Nottingham Gliding Club on Sunday next, Dec. 7. All members of Clubs and friends of the Movement will be welcomed.

A VERY SOUND SCHEME.

The British Gliding Association are very anxious to influence the young idea, and with that worthy object in view are trying to get into touch with schools throughout this country, so that they may arrange to give lectures to the rising generation.

We know that THE SAILPLANE is read in a number of schools already, and we suggest that such readers either persuade their mentors to get into touch with the Association with a view to having a lecturer down, or alternatively they might write to us.

There is no doubt that the interesting and well-illustrated lectures which the Association is in a position to give would be very welcome at schools, where aviation is always a subject of absorbing interest, especially when a cinema-display is provided.

THE REASON WHY.

Among the flood of letters which have been received by the subscription department renewing subscriptions to THE SAILPLANE have been a number bewailing the fact that the paper does not reach them until Monday morning.

We would like to assure everybody that everything possible has been done to ensure this. The paper cannot be made up before Thursday because of the prior claims on the editor's time by THE AEROPLANE. It is published and posted by Friday night.

Although the change caused some increase in expenditure we have been using envelopes for enclosing copies as we felt that these would result in copies arriving less crumpled and with greater regularity. If the converse has proved the case we should be interested to hear from aggrieved parties, when postage will be refunded.



A CATAPULT LAUNCH.—Mr. Searby on the Nottingham Club's glider. The angle of the trailing rope shows the slow air-speed of the glider.

GLIDER SPEED AND CAR SPEED.

An important thing to remember in car-towing is that the air speed of the glider is considerably in excess of the ground-speed of the car. With a 700-ft. rope and a run of 1,200 ft. along the ground the air speed can be as much as 37.6 per cent. in excess of the towing speed. Thus the speed of the car must be watched carefully, for above certain air speeds conditions become dangerous for the structural safety of the machine.

Such danger is offset to a large degree by the tractive force of the car which, with the types usually available for the purpose, is not likely to be large enough to give excessive speeds. A car speed of 30 m.p.h. should not be exceeded.

The mathematics of the problem are simple and may be best understood by making a diagram on paper. The track of the car from the time the glider leaves the ground is shorter than the path of the glider during the period of tow by the length of the tow rope plus an amount which varies as the angle of climb. On the other hand, however steep the climb the car will always be in front of the glider so that a certain distance has to be deducted from the above amount.

THE HOW AND WHY OF GLIDING.

Mr. L. Howard Flanders, M.I.Ae.E., A.F.R.Ae.S., A.M.I.Mech.E., gave a lecture to the Members of the Winchester Gliding Club on Dec. 2, on "The How and Why of Gliding." The lecture was accompanied by the display of lantern slides, and was immensely informative.

Mr. Howard Flanders first of all dealt with the theory of flight in the simplest possible non-technical language, and then proceeded with the aid of diagrams to illustrate the method of building the preliminary training type glider with the method of working out the stresses to be provided for in the structure itself. The lecturer occupied the attention of his audience for rather more than an hour, and was then promptly bombarded with questions.

It is safe to say that this is a lecture which should be heard by every Gliding Club in the country, for by hearing it the non-technical mind can begin to grasp the problems which are involved, and to appreciate the need for careful and systematic study of them and their practical application. As a member-getting proposition it is well worth the attention of every Club to arrange for a lecture of this kind.

[The complete lecture is so wide in its range that it covers a number of subjects about which informative articles have already appeared in THE SAILPLANE. Other parts however are full of valuable technical information hitherto unpublished. We have been fortunate in securing Mr. Flanders' co-operation, and shortly part of his lecture will be reproduced—with diagrams—in THE SAILPLANE. These diagrams and matter will show how a glider may be "stressed" even by people who are not mathematical wizards.—Ed.]

CORRESPONDENCE.

A Society of British Glider Manufacturers.

Sir,—The gliding movement now appears to be sufficiently established to warrant the formation of a Society of British Glider Manufacturers. I was one of the founders of the Society of British Aircraft Constructors and was on the Committee until I retired from business thirteen years ago, and therefore know the value not only to the manufacturers but to the movement as a whole, of such a body.

A question arises which you do not touch, and that is whether such an organisation should not be a section of the S.B.A.C., although taking everything into consideration it would be better for it to be separate but to have a connecting link between the two on similar lines to that of the British Gliding Association and the Royal Aero Club.

You mention the help the gliding manufacturers have been to the gliding movement. I have recently joined the Surrey Gliding Club and have been very interested to note, for instance, the very sporting way in which the R.F.D. Glider Company have helped forward that and other clubs. One hopes that this close touch between manufacturers and Clubs will continue.

All success to THE SAILPLANE: only a few sheets of paper it is true, but it is well worth it and is doing good work. I enclose a cheque for one year's subscription.

(Signed) H. V. ROE.

An Object Lesson.

Sir,—Recently I saw an interesting proof of the reduction of pressure on the upper surface of an aerofoil.

At the ground of the Surrey Gliding Club the Dagling was in use for training. The climatic conditions were as follows:—Dead calm; cold, almost freezing; the grass was damp, but free from ice. Towards the end of the day's work the upper surface of the wings were covered with ice crystals for a distance of about 1/3 chord, starting four inches from the leading-edge. It is evident that the temperature of the air was not quite down to freezing, but the very slight expansion due to the reduction of pressure was sufficient to lower the temperature to freezing point and precipitate the suspended moisture.

In spite of the absence of wind, over 50 glides were made by Club Members. The double hill proved very useful, as glides were made alternately from either slope, which as the glider landed half-way up the opposite slope reduced the work of the pulling the glider up the hill. Glides of up to 27 seconds were made in still air.

(Signed) L. E. HOWARD FLANDERS.

Trouble he Might have Avoided.

Sir,—Had the Accrington meeting last week-end been dated April 1, I could have better appreciated the Satanic humourist who published the large posters saying it was at "Green Hill, DARWEN." On Saturday I combed the intelligentsia of Darwen for knowledge of the place. Neither of them knew anything about it. In fact it was a complete myth.

But, with memories of the splendid example of Nansen and his followers, I pressed on into the wilds of Lancashire. There I met certain aborigines who had never heard of gliders or gliding and *never saw a newspaper*. At 9 p.m. I was within 2 miles of the site and still nobody knew where it was definitely. So I camped (I had the caravan, fortunately) and woke to a glorious morning next day, full of beans and renewed effort.

But it was easy then as I was so close. When I got home I went straight for the gliders' guide and philosopher which I had foolishly omitted to take with me and lo, the directions were exactly what they should have been on the posters upon which I had relied.

So let us stick to THE SAILPLANE and always remember the extreme difficulties that beset the stranger out to locate some otherwise unimportant and unheard-of location and publish therein words of wisdom to guide his erring 27x4.40 footsteps. How much we all enjoy the little jewel you control and wish it every success.

(Signed) J. CECIL RICE.

[We hope that this horrible example of what may happen to those who neglect to read their SAILPLANE will be taken to heart. We are always anxious to be of every possible assistance in telling people how to get to meetings. If Club Secretaries, or those responsible for organisation, will give us due warning we will always insert "sailing directions."—ED.]

A Reply to Mr. Norman Wright.

Sir,—I note from your issue of Nov. 7 that The Dorset Gliding Club have tried The Oxford Club's method of towing their glider into the air behind a car.

As a club, we are particularly pleased that others have tried the method and found it a success.

No doubt, having the unanimous opinion of two clubs, others will be tempted to try the idea, and I think I can safely say that novices gain skill and confidence far more quickly by this method than by the usual shockcord launching.

I infer that The Dorset Club suffered from broken springs, and the only remedy I can suggest for this sort of trouble is to use a level towing ground.

In my opinion there are three essentials to successful towing, and they are: a fast car; a level ground (preferably an aerodrome); at least a moderate breeze.

The lack of any one of these may spoil the day.

(Signed) V. C. DAVIS

(*The Oxford and County Gliding Club*).

AN INVITATION TO SCARBOROUGH.

The Scarborough Gliding Club has sent the following letter to all the Club secretaries whose addresses were available. There are likely to be some new Clubs who have not received it, so will such Clubs and/or their secretaries accept this publication of the letter as an invitation.

Dear Sir,—The Scarborough Gliding Club are arranging a Gliding Display and Inter-Club Contest, to take place on Boxing Day and succeeding days in Christmas week.

They would therefore be very pleased to see yourself and any other members of your Club who would be able to get over for this date, and would be awfully glad if you could bring over one or more of your machines.

They have now acquired the use of a Club House and Aerodrome at FILEY HILL, where permanent Flying Headquarters have been established. Arrangements will be made for the visiting machines to be assembled here, and especially reduced terms are being offered at the Royal Hotel for attending members.

In order that sufficient accommodation may be provided for machines and members, I should be extremely grateful if you would kindly indicate at an early date the approximate number of members likely to attend, and also the nature of accommodation required for either members or machines.

Yours faithfully,

(Signed) (MISS) G. D. COX, (*Hon. Sec.*)

This seems to hold the promise of a really interesting week. We hope that the Southern Clubs will make a special effort to be present in force, as to date there has been no real Inter-Club Contest.

AN INVESTMENT.

There is in the process of formation a new company to manufacture sailplanes and power-gliders. The first machine, which incorporates certain novel features of construction, is nearing completion. The underlying idea has been to produce a machine which the ordinary Club can build without complicated equipment after buying the completed components from the manufacturers.

At present about half the capital required for the new company has been subscribed, but more is required. The designer and builder, who has been to the Wasserkuppe and has been developing his design for the last 18 months, would be glad to discuss the position with someone who is prepared to subscribe a certain amount of capital. He is also anxious to arrange agencies for the Counties. Letters should be addressed to "A." c/o THE SAILPLANE, 175, Piccadilly, W.1.

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NEWS FROM THE CLUBS.

WHERE GLIDING CAN BE SEEN.

Beds.—The Bedford Gliding and Flying Club. Week-ends at Wilstead Hill, 5 miles from Bedford on Bedford—Luton road.

Bucks.—The London Gliding Club. Meeting place, Turveys Farm, near Tottenhoe, on Sundays.

Dorset.—The Dorset Gliding Club, at Chickerell, Weymouth.

Edinburgh.—The Edinburgh Gliding Club. Sundays, at Coniston Farm, near Fairmilehead.

Glam.—Merthyr and District Gliding Club. Sundays, 10 a.m. to sunset. ½-mile-left Dynevor Arms, Merthyr Tydfil—Swansea Road.

Herts.—Herts. and Essex Gliding Club. Sunday afternoons, Eastern Roadways Garage, one mile north of Stortford.

I.O.W.—The Isle of Wight Gliding Club. Saunders-Roe Aerodrome, at Cowes, every Sunday.

Kent.—Channel Gliding Club. Week-ends above Folkestone, close to Dover road, at the Valiant Sailor.

Kent.—Kent Gliding Club. Week-ends above Lenham, on the Maidstone—Ashford road.

Lanark.—The Glasgow Gliding Club. Week-ends at Barrance Farm, Whitecraigs, near Glasgow.

Lancs.—The Furness Gliding Club, at Gleaston Park Farm, Gleaston, near Ulverston (midway between Gleaston and the Coast Road), every week-end.

Staffs.—The North Staffs. Gliding Club. Week-ends at The Downs Banks, Barlaston Downs, near Stone, Staffs.

Surrey.—Surrey Gliding Club. Every Sunday, if weather permits, at Lockner Farm, Chilworth, near Guildford, 10 a.m. to sunset.

Sussex.—Sailplane Club of T.M.A.C. Horton Farm, Smalldole, near Steyning.

Sussex.—Southdown Skysailing Club at Ditchling Beacon. Sundays, 10.30 a.m. till dark.

Sussex.—The Worthing and District Gliding Club, Weds., Sats., and Suns., at High Titton, 2nd turning to left going from Washington to Storrington.

Warwick.—Rugby District Gliding Club. Cote Hill Aerodrome, Husbands Bosworth, Rugby.

Wilts.—The Wiltshire Light Aeroplane and Glider Club at Easton Hill, Alton Priors Range, Bishops Cannings, near Devizes.

Worcs.—North Cotswold Gliding Club. Every Sunday at Fish Hill, above Broadway Village, from 10 a.m. to sunset. Saturdays and Wednesdays from 2 p.m.

Yorks.—The Bradford Gliding Club, at The Pastures, Apperley Bridge. Sat. 1.30 p.m., Sun. 9 a.m.

Yorks.—The Huddersfield Gliding Club. All day every Sunday at Bradley Bar, Huddersfield.

Yorks.—The Leeds Gliding Club. Week-ends at Gildersome near Leeds.

Clubs are invited to send in full details as to where and when they can be seen at work. This feature should help Clubs considerably as readers who are not members can go to look at the nearest local clubs and see which they like.

THE BEDFORD GLIDING AND FLYING CLUB.

Unfortunately the wet and stormy weather over the week-end (Nov. 29-30) made gliding impossible, but in view of the fact that this is the first occasion since the Club's inauguration in July last, that the complete week-end has been a blank, we have not a very big grouse.

The opportunity was taken to dismantle the machine and go over it carefully, strengthening and renewing where necessary. Weather permitting, we look forward to a full time outing next week, and would again ask all members to turn up early on Saturdays and on Sunday mornings. We intend to carry right on during the Winter months if sufficient members turn out.

The Club Rooms at No. 96a, High Street, Bedford, are now in full swing, and the Social Committee are doing everything to make things brighter.

THE BRADFORD GLIDING CLUB.

The Bradford Gliding Club put in a good day's flying on Nov. 23, when members gained some valuable experience on a much steeper gradient than that in the regular flying field. This field has a slope of about one in ten and is rather rough in places, but no damage was done to the glider and various pilots put up flights of 15 secs., and when the wind is suitable this field is large enough for "A" tests.

The trailer is being towed by a motor-cycle combination which has been kindly loaned to the Club by Phelon and Moore Ltd., of Cleckheaton, and on the road this method is found easier and cheaper than using a car.

Gliding will take place this week-end again at The Pastures, Apperley Bridge, Saturday, at 1.30 p.m. and Sunday at 9.0 a.m.

THE FURNESS GLIDING CLUB.

Among the newcomers into the Gliding World we have the new Club recently formed at Barrow-in-Furness, the world-famed shipbuilding port in North Lancashire, where more than one airship has been built. As might be expected in such an area, the technical element, apart from its sporting character, has drawn devotees to Gliding, and after a very successful demonstration in October by Herr Magersuppe, of the Scarborough Club, the temporary Committee continued their strenuous work to provide for the demand which has undoubtedly arisen for the new art.

Standing as it does on the edge of the English Lakeland, and itself in a very breezy quarter of the globe, Barrow and District offers a very favourable area for successful gliding, while the still unknown eddies and currents around the Lake District mountains, well within the reach of the Headquarters of the New Club, afford unequalled opportunities to expert sail-planers in their pursuit of pleasure, and shall we say of English and perhaps even World records.

In this atmosphere, the first general meeting of the Club was held in the Hotel Imperial, where much enthusiasm was displayed by some 60 members and friends on Nov. 15. The meeting was under the chairmanship of Captain J. Fisher, a well-known local shipowner, who was supported by the President, Commander Craven, the managing director of Vickers Armstrong's works at Barrow, and the Mayor of Barrow.

After speeches by the Chairman, by Commander Craven and the Mayor, Alderman Duckeray, a report was read by the Secretary, Mr. R. Cuthell. Lectures, slides and films were then given and displayed by Mr. J. S. Redshaw.

The first annual general meeting of the Club was then held, under the chairmanship of Mr. W. N. Melville, when the following officers were elected:—President, Commander C. W. Craven; chairman, Capt. John Fisher; vice-chairman, Mr. R. B. Domony; secretary, Mr. R. Cuthell; treasurer, Mr. J. McGinn; ground captain, Mr. H. S. Gross; ground engineer, Mr. W. Butterfield; members of committee, Messrs. G. J. Lock, V. Foster, J. Kay, B. Winder, J. McLaren and J. H. Saunders.

For the present the Club is using a field in Gleaston Park by kind permission of the tenant of the land, and while their activities are confined to week-ends because of the short days, there can be no question of the keenness of the members, which will no doubt shortly be reflected by claims for "A" certificates. The weather has hitherto been favourable for practice flights, which will be continued as long as the conditions permit, so that in the Spring some tangible progress should be reported.

In the meantime the Club lacks the guidance of experienced gliders, but while realising the difficulties of carrying on under these conditions, they face the future with confidence. They have a considerable number of members with technical and mechanical training, and with the result of practical experience to help them forward, they hope shortly to be able to widen their sphere of activity.

THE HUDDERSFIELD GLIDING CLUB.

When the Huddersfield Gliding Club had their machine out for the first time on Sunday (Nov. 30) a flight of 15 secs.' duration and a height of about 20 feet was attained by Mr. C. F. Brook, a committeeman of the Club, who had previously had power-piloting



THE FATEFUL MOMENT.—Members of the Huddersfield Club tossing up for the first flight on their new machine. No. 2 from the right got it,—hence the expression of rueful pleasure.

experience. That flight was made in the afternoon towards the close of the meeting, when a 4-5 m.p.h. breeze had sprung up. The earlier flights were made in a total absence of wind. In fact under conditions which could not have been better for beginners.

There was, of course, nothing spectacular about the other flights, for the flying committee had given instructions that the elevator was not to be used, and that lateral control only was to be practised. The experiment of fastening the rudder bar in a neutral position when novices were flying, tried by the committee, was very successful. At meetings held by other Clubs the committee had seen the danger of beginners using the rudder, either intentionally or unintentionally.

The committee were early at work, and by 7.30 a.m. they had conveyed the machine on the trailer, which Mr. C. F. Brook, the "handiman" of the Club, had made for it, to the fairly flat field at Bradley Bar.

The good nucleus of power pilots which the Club is lucky enough to possess expressed great satisfaction with the machine, which is a Fiesler, being of opinion that the controls were more responsive than those of other primary type gliders they had had experience of. The machine was delivered on Nov. 12, and for nearly a fortnight it was on show at a Huddersfield garage, whither half the town made pilgrimages to see it.

There were further evidences of this interest on Sunday, when a crowd of about a thousand gathered to watch afternoon operations, although the fact that flying was to be begun that day had been kept quiet.

The first flight was made by Mr. H. C. Beaumont, and he acted as instructor along with Mr. P. Jackman (secretary), Mr. F. Sellers, and Mr. C. F. Brook. All four had had a little gliding experience at Scarborough. The Club was fortunate to have the services as rigger of Mr. A. Beaumont, a rigger employed by A. V. Roe and Co. Ltd.

Of the three lady members who "went up" Mrs. Jackman, wife of the secretary, was the first.

Eighty-five flights were made all told. Two members with no previous flying experience, Mr. Gordon Sudworth (treasurer) and Mr. Gordon Lang, got off the mark quickly, and put in a few useful flights. There were no mishaps at all.

THE ISLE OF THANET GLIDING CLUB.

The Isle of Thanet Club was formed by a few local enthusiasts in Ramsgate, Margate, Broadstairs and Westgate in September. The President is Captain H. H. Balfour, M.C., M.P., the Member for Thanet, and the Club's first Chairman is Councillor Captain P. Turner, M.C., who along with the Hon. Secretary, Mr. J. T. Huddlestone, and Mr. Garner (of Westgate-on-Sea) founded the Club. The membership now stands at 79 (Flying and Non-Flying) and the Club's first glider, B.A.C. Primary type, was delivered a week ago.

Very valuable advice and assistance has been given the Movement locally by Group Capt. Pink, C.B.E. (Officer Commanding R.A.F. Station, Manston, Thanet), and the first instructor is Flg. Off. Phillips, R.A.F. Mr. E. Bicknell (Civil Pilot) is the other instructor. Sq. Ldr. Corkney, D.S.C., of Manston, is Ground Engineer, and the first instructional practices are being held at Manston.

The gliding ground proper is at Wingham and this will be utilised more frequently at a later stage. The Club's activities to stimulate interest in the Movement have included a very successful demonstration at Wingham, when the Kent and Channel Clubs kindly brought along their machines and showed what could be done.

On Nov. 25 a Lecture and Public Meeting was held at Margate. The lecturer was Flg. Off. C. H. Latimer Needham, M.Sc. This was greatly appreciated locally and aroused great interest. The members of the Thanet Club are very keen on the Movement and a constructional section is in course of formation.

THE ISLE OF WIGHT GLIDING CLUB.

A steady north wind proved ideal for gliding on Nov. 30 and members were able to take advantage of the slight slope on the drome under these conditions. In all some sixty launches were successfully made, and at the end of the day the glider was returned to the hangar intact—this making the fourth time in succession!

Members have now reached that stage of proficiency that they are able to land the machine without removing large pieces from the surface of the drome, or damaging the glider. We have been concentrating on landings prior to beginning flights from a pukka slope, and in all there are now some twenty members ready for advance work.

Experiments have been carried out with launching, using a car in place of the usual crew. A length of rope, which will place the car out of the range of possible flight, is attached to the "bungey," which in turn is attached to the glider in the usual manner. A much faster take-off and longer glide is possible with this method. The "bungey" falls clear directly the nose of the glider is pulled up.

Our metal struts have proved quite successful, and so far no breakages either to strut or wing spar have occurred. Work on the dual control machine still progresses, while the drawings and plans for an advanced type of two-seat glider are now completed. Work on this machine will commence shortly.

Although there is nothing spectacular in watching flights made from a flat surface, the public still take a very lively interest in the proceedings, and a number of new members have been enrolled.

[The I. of W. Club certainly are inventive. We should like to hear more of these metal struts. Of what are they made? How does their weight compare with the original wooden ones? In his article Mr. Perfield (see THE SAILPLANE for Nov. 21) points out that metal struts have an advantage in that they can be straightened in situ.

Car-launching by stretching the rubber rope does not seem worth while when by using a Goodyear air-wheel for undercarriage the glider can be towed over the aerodrome and its height controlled by the instructor in the car.—ED.]

THE KENT GLIDING CLUB.

On Nov. 23 the Club held its meeting at Eastchurch, where a branch has been formed. This was the first meeting of the Eastchurch section and proved very successful.

Under the instruction of Flt. Lt. Crawford a large number of *ab initio* glides were made by both members of the R.A.F. and residents in the Isle of Sheppey. Great enthusiasm was shown and a number of new members enrolled.

A primary training glider is being made by members at Eastchurch, and until this is completed the Club's original machine will be loaned. Next Sunday gliding training will be carried on at both Eastchurch and at Lenham. The new hangar is now completed at Lenham and will dispense with the necessity of rigging and dismantling machines.

On Friday, Dec. 5, Mr. Meldrum is lecturing on "Reminiscences of the Early Days of Flying. This will be at 8 p.m. at All Saints Schools, Maidstone. Visitors will be welcomed.

On Dec. 12 a dance is being held at the Lower Brewery, Maidstone, for members and friends. Tickets 3s. 6d. single, 5s. double. Refreshments included. Dancing 8.30 p.m. to 2 a.m.

Owing to the inclemency of the weather there was no gliding on Sunday last, Nov. 30.

THE LEEDS GLIDING CLUB.

We had some good gliding over the last week-end, Nov. 29-30, at Leeds and many good flights were made. Owing to the rain we had to pack up on Saturday after two glides, which, by the way, were both wonderful efforts, lasting between 35-40 secs each. The first was made by the demonstrator, Mr. C. St. L. Jervis, and the second by our worthy instructor, Mr. A. G. Wilson.

On Sunday morning Reynard II was damaged after a record glide of about 500 yards by striking a hedge. All Sunday afternoon was spent training on "our hackbus," Reynard I, and all members present were given slides and/or glides, and, on the whole, did very well. Of the beginners the best was J. W. Smith, aged 16 (our youngest member), who made a very good hop.

Of the more advanced members good flights, of 15 secs. average, were made by Messrs. C. W. Richardson, A. Gomersall, and Mr. Jefferson. Mr. Wilson ended the day by making a good glide and landing very lightly.

Gliding at Gildersome until further notice.

THE NOTTINGHAM GLIDING CLUB.

Although the gliding operations are suspended until the days are longer the members of The Nottingham Gliding Club are not "just waiting."

A series of lectures have been arranged to not only still further popularise the sport of gliding in the district, but also to improve members theoretical knowledge of aeronautics and meteorology.

The first of these lectures will take place at the Parliament Square Picture House on Sunday next, Dec. 7. The lecturer is Mr. Gordon England, the very hard-working chairman of *The British Gliding Association*, who with the aid of lantern slides and films will speak on "Gliding as a National Movement."

Visitors are most earnestly requested to be in the Parliament Square Picture House before 7.45 p.m. as after this time the general public will be admitted to the vacant seats. The lecture begins at 8.0 p.m.

The Chair will be taken by Lord Belper, who has just accepted the vice-presidency of the Club.

To honour Lord Belper's association with the Movement the Council are giving a dinner at the Black Boy Hotel before the lecture, to which the Lord Mayor, the Sheriff, Chief Constable and several other influential gentlemen have been invited.

It is proposed to form a Junior Section next season, and with this aim in view Headmasters of many of the foremost schools of Nottingham have been invited to be present at the lecture and to bring some of their senior boys.

A very fine, large workshop has been secured in Nottingham where it will be possible to put the Club's R.F.D. glider in trim for next Spring and also build further machines. At the moment plans for both intermediate and advanced types are being considered by the Constructional Section and opinions are very divided as to which is likely to prove of most advantage.

THE OXFORD AND COUNTY GLIDING CLUB.

The members of the Oxford and County Gliding Club spent a very interesting day on Nov. 30 at Wallingford aerodrome when a display of their tow-gliding was filmed by the Gaumont Sound Film Company.

Many flights were made, and good altitudes were attained, considering the total lack of breeze. Although the surface was good, and a fast car was being used, the day proved that even this combination was not sufficient unless there was a certain amount of wind to back it up. In the writer's opinion a breeze of 10 m.p.h. is worth more than 10 m.p.h. car speed. A running commentary was made during the flights, and several close-ups were taken so as to clearly demonstrate the smaller but more important details which might otherwise be missed.

We were informed that this film will be exhibited during the end of this week, and if there are any Clubs which are interested, it will be worth the while of the members to go and see it. A list of the houses showing this film can be obtained from the Gaumont Company in Wardour Street.

FORTHCOMING DATES.

Dec. 7.—Lecture by Mr. Gordon England to The Nottingham Gliding Club at 7.45 p.m., Parliament Square Picture House, Nottingham.

Dec. 26—Jan. 2.—The Gliding Display and Inter-Club Contest organised by the Scarborough Gliding Club at Filston Hill.

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