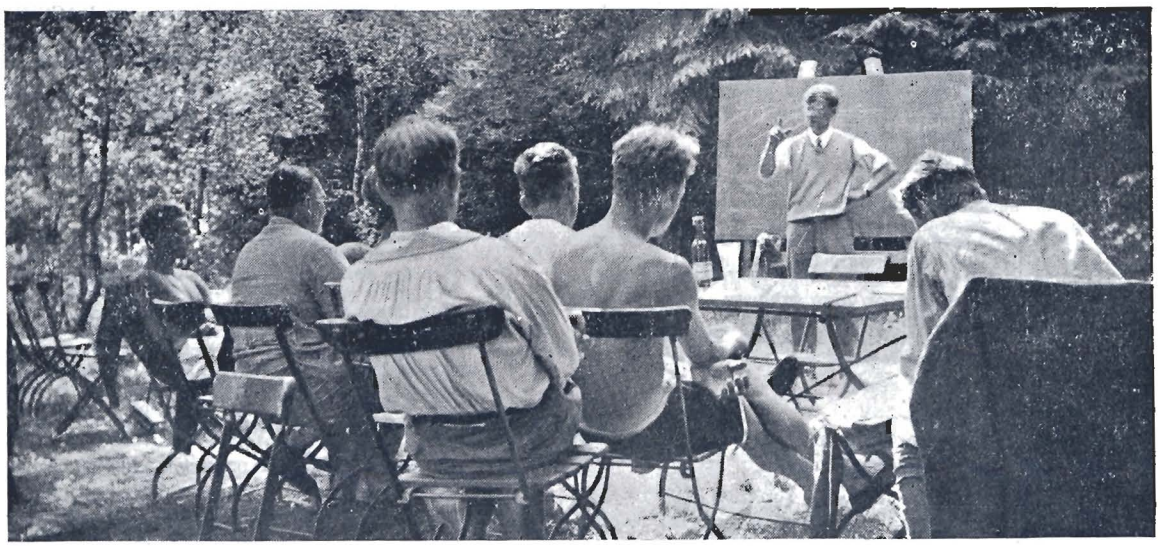
July 31, 1931 Vol. 2. No. 2

THE SAILPLANE AND GLIDER

Price 6d.

Edited by Thurstan James.

A Lesson in Theory



An open-air class at Grunau, whence came enthusiastic letters from Mr. J. Wilson, who describes the school there as a soaring paradise.

The B.G.A. International Meeting

On the next page we publish the programme which has been approved in general for the first International Gliding Meeting to be held in this Country since the famous DAILY MAIL Competitions at Itford in 1922, when M. Maneyrol achieved a record which was only broken a fortnight ago, by Mr. Mungo Buxton, of the London Gliding Club.

Now this Meeting is to take place on October 4—5, and will be under the patronage of THE INTERNATIONAL COMMISSION FOR MOTORLESS FLIGHT, which is holding its meeting in London round about that date. For that reason the Competitions cannot be held too far from London. This limitation means that, so far as we are aware, only two sites are available: one is at Balsdean and the other at Totternhoe. Which is it to be?

There are other considerations than the purely meteorological: a site for an International Meeting has to be, as far as possible, in a place which is most convenient for the greatest number of people, it has to be easy to get at so that the greatest number of people can be attracted thither for providing the gate money which is to recoup the competitors for their expenses in attending, and on both these points, Totternhoe scores.

Londoners have learnt their way to Dunstable because of the new Zoo at Whipsnade, and there are excellent public transport services already in existence to convey spectators to, and from the Competitions. Moreover, Totternhoe is some hundred miles nearer to the Clubs in the Midlands and the North than Balsdean.

On the other hand although for the purpose of competition the whole of the Dunstable Downs and Ivinghoe Beacon are available, as a site they are only useful within a comparatively narrow range of wind direction. Balsdean is claimed to be suitable for any wind, and if the Northern slopes with their terrific drop of hundreds of feet can be used, should the wind be northerley, there is no doubt that the Southern site is excellent.

There is the added advantage that the whole of the South Downs and beyond are available for distance flights. Along them already Herr Kronfeld has soared for sixty miles. Against this again is the fact that practice is essential for success and more soaring has been done by Englishmen over the Chiltern Hills than everywhere else in the Country combined.

Which will you choose?

We want to know what a "sailplane" is and suggest that a simple definition must be evolved by the Technical Committee before the Competitions begin, otherwise confusion will exist and anomalies will become evident. Surely some figure combining wing-loading with L/D ratio can be used to determine a machine's class?

The Second B.G.A. Gliding Meeting

SECTION 1.—Organisers—Date—Place.

...*The British Gliding Association* is organising an International Gliding Competition to take place on Saturday, October 3rd and Sunday, October 4th (Place not yet decided).

SECTION 2.—Name—Patronage.

The Competition will be called the "2nd British Gliding Competition, 1931," and is under the Regulations of the F.A.I., and where applicable the Competition Rules of *The British Gliding Association*. The Competition wll be under the distinguished patronage of the International Commission for the Study of Motorless Flight.

SECTION 3.—Aircraft.

The Competition is open to motorless aircraft which fulfil the conditions specified in Section 5.

The machine shall at all times be at the risk in all respects of the entrant, who shall be deemed by entry to waive all claims for injury either to himself or pilot or passenger, or his machine, or his employees, or workmen, or fellow Club Members, or any other person, and to assume all liability for damage to third parties or their property and to indemnify *The British Gliding Association* in respect thereof.

SECTION 4.—Competitors—Entries.

Entries shall be made in accordance with rules 32 to 36 of the "Open Competition Rules of *The British Gliding Association* (see B.G.A. Handbook, price 3/- post free). Entry forms may be obtained from the Secretary, 44a Dover Street, London, W.1.

A separate entry form must be completed for each entry. All persons taking part in the Competition must when submitting entries, agree to observe the Regulations contained herein and any other Regulations issued subsequently by the organisers, or persons authorised by the organisers.

SECTION 5.—Constructional Strength of Aircraft.

The constructional strength of all competing aircraft must be certified by an acknowledged expert in glider construction. All competing aircraft must carry a Certificate of Airworthiness granted by *The British Gliding Association*. Foreign machines must carry a Certificate of Airworthiness validated by *The British Gliding Association* (fee £1 1s. 0d.) in accordance with regulations of the Regulations for Airworthiness.

Before taking part in the Competition, all aircraft must be presented to the B.G.A. Technical Committee for admission test, and the following documents produced :—

(1) Certificate of Airworthiness.

(2) Ground Engineer's Certificate.

(3) Details of the machine giving brief history of its work, i.e., number of certificates obtained on it, number of launches, bad crashes, etc.

(4) A good unmounted photograph of the machine.

Documents 3 and 4 are intended to serve as a basis for reports on the Competition.

Any damage or alterations to the aircraft made during the Competition must be reported to the Technical Committee, who will, if required to do so, consider if the machine is airworthy for Competition purposes.

SECTION 6.—General Conditions.

(a) The interpretation of these regulations or of any hereafter issued shall rest entirely with the Council of *The British Gliding Association.*

(b) The pilot shall be solely responsible to the officials for due observance of these regulations, and shall be the person with whom the officials will deal in respect thereof, or of any other question arising out of this competition.

(c) The entrant, by entering, and the pilot, passenger and any other person taking part in the Competition, waives any right of action against *The British Gliding Association* for any damage sustained by him or them in consequence of any act on the part of the officials of *The British Gliding Association.*

(d) The Council of *The British Gliding Association* through its Contest Committee, reserves the right to add to, amend, or omit any of these Rules should it think fit.

(e) Any flight considered to be dangerous to be ruled out of the competition.

EVENTS.

The Competition shall be divided into the following classifications :—A—Primary Training Machines. B—Secondary Machines. C—Sailplanes. (Definition of a sailplane to be left to the Technical Committee).

EVENTS OPEN TO "A" MACHINES—TO BE HAND-LAUNCHED

1. Rig and Fly Contest. Entries only accepted from Clubs. Machines having been dissembled before the start of the Contest; at a given signal the machines have to be rigged, passed by an observer and flown for not less than 30 seconds.
2. Spot Landing Competition.
3. Distance Flight.
4. Duration Flight.
5. Aggregate Flying Contest. During the time the Meeting is open any "A" machine may be flown and the winner of the Contest is the entrant whose machine aggregates the longest flying time. No flight of less than 30 seconds to count.
6. Distance Flight. Open to British Women Pilots only.

CONTESTS OPEN TO "B" MACHINES

7. Rig and Fly Contest. Conditions similar to Contest No. 4.
8. Duration Flight with return to within 150 yards of the point of departure. Machines must be hand-launched.
9. Distance Flight with return to within 150 yards of the point of departure. The pilot must indicate his goal and fly over the designated spot. Pilots must notify their goal in advance so that officials can be posted there. Machines must be hand-launched.
10. Altitude above starting point. Barographs to be carried.

CONTESTS OPEN TO "C" MACHINES ONLY

11. Rig and Fly Contest. Conditions similar to Contest No. 4.
12. Fastest Flight on a straight course of not less than 1 mile in length. The judges are to fix the distance according to the meteorological conditions. The mean time of the flights both ways deemed the speed of the flight. The winner to hold the "Manio" Cup for one year.
13. Distance Flight with return to within 150 yards of point of departure. The pilot must indicate his goal and fly over the designated spot. Pilots must notify their goal in advance so that officials can be posted there. Machines must be hand-launched. The winner is to hold Capt. de Havilland's Cup for one year.
14. Altitude above starting point. Barographs to be carried.

CONTESTS OPEN TO ALL TYPES OF MACCHINES

15. First machine in the air after the Meeting is declared open on Saturday. The winner must remain ariborne at least 30 seconds.
16. First machine in the air after the Meeting is declared open on Sunday. The winner must remain airborne at least 30 seconds.

CONTESTS OPEN TO B. and C. MACHINES ONLY

17. Distance Flight across country. The winner to hold the "Wakefield" Trophy for 1 year. The first British Pilot to fly not less than 50 miles may win the Cellon Prize of £50.
18. Duration Flight with return to within 150 yards of point of departure for passengers-carrying machines carrying a passenger. The point of departure to be the spot where the machine is at rest immediately before being launched.
19. Figure of eight Contest round two pylons. The machine flying the greatest number of times around the figure to win —only completed figures to count. Machines to be hand-launched. Entries only accepted from Clubs who have to nominate pilot and machine. No pilot or machine to be entered by more than one Club. The winner to hold the "M. H. Volk" Cup for one year.
20. Out and home contest for passenger-carrying machines carrying a passenger.

NOTE.—*Only British entries accepted for and British pilots allowed to compete in the events limited to "A" and "B" classes of machines and in event No.* 19.

All pilots must hold a Glider Pilot's Certificate.

All pilots competing in "B" class machines must hold a "B" Glider Pilot's Certificate, and all pilots competing in "C" class machines must hold "C" Glider Pilot's Certificates.

On each day the Meeting shall be officially declared open and closed and an easily recognised signal shall be given.

No aeroplane-launching allowed.

Where auto-launching methods are used the length of the cable shall not exceed 500 *feet.*

THE FUTURE OF SOARING

The following interesting article by Wolf Hirth, the famous pilot, now chief instructor at Grunau, has been translated from Flugsport, *by Dr. A. E. Slater.*—ED.).

What has soaring flight yet to bring us in the way of surprises? None for the "experts" who for years have got stuck by the wayside; much, however, for those who stand outside.

It is true that it will never give us a Motorless Air Transport after the fashion of our sailing ships which fare forth heavily laden across the seas, but certainly it will offer us an active sporting pursuit.

Actually it is already possible on any normal sunny day, to make soaring flights of some hours' duration with more or less certainty and independently of the wind's direction and strength. For such flights off a slope of following r tow by car or aeroplane, especially the last, are quite suitable.

The thermal up-currents, formerly called heat bumps which were once looked upon as snags, are now becoming more and more useful and evident to the soaring pilot who searches for them, when one reflects that a high-performance machine in straight flight can glide for about half-an-hour from a height of 1,000 metres (3,300 feet), and that this height is not difficult to reach, one can ob-

tain a small idea even at this stage of the radius of action of a soarer.

Actually, however, it is not hard to discover new areas of up-wind during the glide from the height first attained, and thus to regain fresh height for utilisation. Up till now it has been customary to speak almost entirely of "cloud up-wind." Probably, however, there are actually more utilisable up-wind areas without clouds at the summit than with, since these currents do not quite reach the condensation level.

In the case of 5 flights which I have so far undertaken in suitable weather, starting from the slope at Grunau, on three occasions I connected with these up-currents while flying at 50 to 100 metres (160 to 280 feet) above the hill, and reached without effort heights of 600, 1,000 and 1,200 metres (2,000, 3,300 and 4,000 feet) above the starting-point, without having sighted a single cloud in the vicinity. Still better results might have been obtained by those who could carry out systematic trials with the help of towed starts, such as Groenhoff and the Darmstadt pilots Fuchs and Starck.

And how can all this be applied to soaring flight in general?

The next stage will be, that those soaring enthusiasts who have power-planes at their disposal will have themselves towed up to high altitudes. As, however, many soaring pilots will possess no aeroplane, they will doubtless seek out as soon as they can someone who will tow gliders up to a height in return for payment. If one reckons the cost of power-flying as 80 RM. (£4) per hour, then a single tow of 6 to 8 minutes will cost 10 RM. (10/-). The soarer then proceeds to fly round about in the thermal currents for 1½ to 2 hours and lands again in front of his hangar on the flying field. Expenditure for 1 to 2 flying hours: 10 RM. (10/-).

There are some parts of the world where the wind direction does not change for days together, and where weather forecasting is so accurate that the soarer can place very good reliance on it. In such places there are also many mountain ranges which stretch for hundreds of miles in one direction. One can easily imagine a local gliding club pulling one after another of its machines into the air by auto-towing, until no more planes remain below.

Each one will have cast off high in the air, and the Club proceeds to fly in formation to a neighbour who lives 40 or 50 miles to the South. In time many of these machines will be two-seaters, for it costs little more and there is up-wind enough and to spare. After a comfortable rest for refreshment, the host club tows its guests up again or catapults them into the air, and homeward they return, feeling more or less exhilarated as the case may be.

Another idea, suggested by Major Zimmer Vorhans, is that of aerial tobogganing. On their cheap gliders the peasants descend from the mountains to market in the valley. They start by catapult, and, oblivious of ice-covered tracks and broken-down bridges, fly down to the valley; then in the evening they are towed up to the heights by a special aerial tug (high-powered biplane with large span and low air-speed). Each one in turn casts loose from his place in the row and lands by his own door. No-one will ridicule this idea who has seen the Wurttemberg "yokels" fly.

We soaring enthusiasts are only at the beginnings today. Natural soaring flight is our goal, and more and more practice will carry us far on the way.

QUERIES

As announced last week, under this heading, Captain Latimer Needham, who is Chairman of the Technical Committee of the B.G.A., will endeavour to answer such technical questions as readers may forward to 44a Dover Street, W.1. Envelopes should be marked "Queries."

Q.1.—*What, briefly, are the factors which determine the "gliding angle" of a sailplane?*

Q.2.—*What is the effect of weight?*

Q.3.—*How is it affected by wind speed?*

Q.4.—*Are the long, thin planes of a sailplane conducive to minumum resistance?*

Q.5.—*Does a good "gliding angle" mean one that is small?*

P.C. (W.11)

A.1.—The best gliding angle of any sailplane is obtained when L/D is a maximum (where L is the lift of the wings and D is the total drag), or, since the lift equals, approximately, the weight, when W/D is maximum. Hence for any fixed weight the finest gliding angle is present when the resistance is a minimum.

Characteristic curves for aerofoils show the figure for L/D maximum for the wing alone, but some modification is necessary for the complete machine. The drag of the fuselage and tail may be divided by the wing area to find the fuselage drag eo-efficient that must be added to the wing drag co-efficient to obtain the drag co-efficient for the whole machine.

By using the total drag co-efficients thus found, together with the values of the lift co-efficient, a new curve is obtained for the L/D of the sailplane, from which it will be seen that its value is somewhat lower than that for the wing alone, and that the angle if incidence is slightly increased.

The wing drag can be made a minimum by employing, within limits, a high aspect ratio, and the fuselage drag can be kept low by using a small frontal area and a good steramline shape free from excrescences.

A.2.—The effect of weight has already been shown. Extra weight causes extra lift to be necessary, with consequently increased drag, but if the ratio of L/D remains as before, the gliding angle is unchanged.

A.3.—Wind speed effects the gliding angle **relative to the ground,** making the angle coarser with a head wind and a finer angle with a following wind. This is, of course, assuming that the sailplane is kept in the same altitude, as for the best gliding angle in still air, whereas, actually, a pilot flies at a higher speed (relative to the air) against a head wind and so obtains a finer gliding angle relative to the ground. Conversely the air speed is reduced in a following wind to obtain the maximum distance.

A.4.—This has been answered in (1), but it should be noted that a higher aspect ratio, giving a smaller drag, is accompanied by an increase in weight, which must, at some point, nullify all the advantage gained. The high aspect ratio reduces the "induced" drag component of the wing drag which, explained simply, means that the end loses, due to the air flowing from the underside to above, are brought to a smaller percentage of the total lift.

A.5.—Yes, by a good gliding angle is meant a considerable forward distance travelled for any given loss in height.—C.H.L.N.

CELLON DOPE

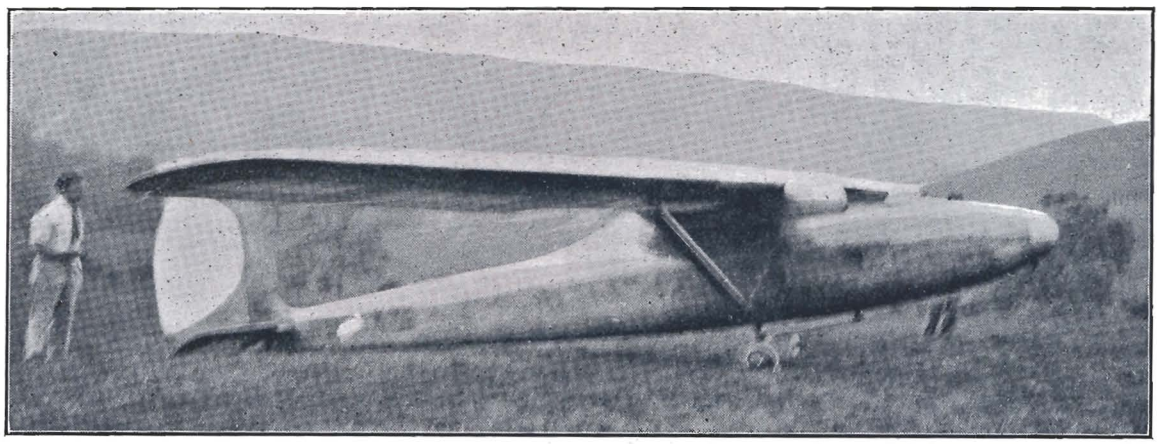
FOR

SAILPLANES and GLIDERS

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The New Record-Holder



The Cloudcraft "Phantom" which holds the unofficial British Duration Record of 4¼ hours.

On July 18, Mr. M. Buxton, piloting the Cloudcraft PHANTOM at Dunstable, remained in the air for over four hours fifteen minutes, thereby creating a new British Record (unofficial). This is the first time that the record created by M. Maneyrol in 1922, has been beaten by a British pilot in a British machine over British soil.

All parties concerned, therefore, are to be congratulated. But a word of warning is due. This flight cannot be officially recognised because no barograph was carried nor were the proper regulations of the B.G.A. observed. These state that due notification of any attempt to break records must be made.

If our records are to be recognised internationally, they must be made under internationally recognised conditions so all future aspirants **must** observe these conditions, otherwise their energies will be wasted.

The machine which now holds the unofficial British Duration Record is the Cloudcraft PHANTOM. This machine was specifically designed for record-breaking and is the first machine of its type to be placed on the British market by a British manufacturer. The PHANTOM is remarkable for its low-weight and clean lines, a combination which results in a very low sinking speed.

The machine is a high-wing monoplane with a single strut on each side. The R.A.F. 34 section wing has a single spar with a stressed leading edge covering—the so-called torsian-resisting "D"-spar. The tail-unit is conventional for this type of wing except that the rudder is of very generous dimensions.

The use of R.A.F. 30 section is noteworthy as this is a symmetrical section, or at least biconvex and therefore quite unlike the typical Gottingen sections so noticeably in favour. Mr. Roger S. Dickson is to be congratulated on having demonstrated that sections developed in this country will give a performance comparable to those obtained with other more-favoured sections. The following comparison with the PROFESSOR is interesting.

The PHANTOM, as is usual with all new types, will prove the better for various modifications but the soundness of Mr. Dickson's conception may be gauged by the successful attempt made by Mr. Buxton in this machine to beat the British Record.

	PHANTOM	PROFESSOR
Span	51 feet 0 ins. ...	... 52 feet 0 ins.
Wing Area ...	200 square ft. ...	... 200 square ft.
Construction ...	Spruce and ply, single-spar wing, stressed nose.	Pine and ply, single-spar wing, stressed nose.
Weight, empty ...	247 lbs.	... ... 341 lbs.
Wing loading, with 160 lbs. pilot	2.0 lbs./sq. feet	2.5 lbs./sq. feet
Max. L/D ...	26 (approx.) ...	... 22 (approx.)

News from the Clubs

THE LONDON GLIDING CLUB

On Saturday, July 18, operations commenced soon after 3 p.m., when the R.F.D. and the PRUFLING were taken to the top of the Downs, leaving Mr. Buxton and a party to assemble the Cloudcraft Sailplane of which, more later.

The wind which was of about 15—20 m.p.h., was blowing diagonally up the hill and was not by any means ideal for soaring. Mr. Culver was the first away on the PRUFLING. He managed to get along to the far end of the ridge down wind and got a good lift over the bowl, but on his return, got too close to the lee of the launching spur and was forced down with 3½ minutes. The machine was quickly retrieved and as the wind was judged too strong for the R.F.D., was launched again with Mr. Smith as pilot; profiting by the mistake of the previous flight, he did one or two turns over the bowl, but then ventured too far back and was also forced down by the down-draught from the spur, just short of 5 minutes.

Before the PRUFLING could be recovered, Mr. Buxton arrived with the CLOUDCRAFT; this machine is very much like the WESTPREUSSEN in appearance, having the same oval section fuselage and large rudder;; the wing section, however, is R.A.F. 34 and from the performance which Mr. Buxton put up, one would imagine that this section is likely to become quite a popular one.

Mr. Buxton managed to give the British Duration record another jolt with a flight which was officially 4¼ hours, but was actually longer, as he disappeared from view at that time, but did not land until several minutes later. In the meanwhile, Mr. Symonds took a trip on the PRUFLING, but with little success and the party then adjourned for tea.

On returning, Mr. Morland took the PRUFLING up; the wind was now steadier, and blowing straight up the hill at about 10—12 m.p.h., and Mr. Morland finished a fine flight of 40 minutes with a voluntary landing on the top. The PROFESSOR next appeared on the scene and was launched, with Capt. Needham up, and Dunstable had a new thrill in the sight of two high-efficiency machines in the air at the same time.

Unfortunately the wind died away to some intent, and Mr. Culver, who had another try for his "C" was unable to manage more than 2¾ minutes. However, for that short period we had three machines soaring at the same time.

Meanwhile the R.F.D. had been at work, Messrs. Dent, Slater and Lee all doing trips of over 45 seconds duration.

The HOLS DER TEUFEL then arrived, and Mr. Smith joined the PROFESSOR and the CLOUDCRAFT in a little "light wind stuff" remaining aloft for 20 odd minutes; once more three machines soaring at the same time. Capt. Needham then put the PROFESSOR down on the top and Mr. Symonds tried his luck once more but with no more success than he had had with the PRUFLING.

The wind had now returned, so Mr. Scott-Hall went off on the PRUFLING for his "C" which he obtained with a flight of 11 mins 57 secs., landing down near the hangar; his flight was nearly all done in the neighbourhood of the bowl. The machine was retrieved as soon as possible and Mr. Culver went off for his third, and this time successful attempt, clocking 8 minutes 22 seconds and landing back on the top. Immediately after this, Mr. Bolton, another of our *ab initio* members, went off in the HOLS DER TEUFEL and also got his "C" with a nice flight of 7 minutes.

Another party then went off with Mr. Buxton to peg down the CLOUDCRAFT which he had landed just outside the Whipsnade Zoo

So ended another good day, which had yielded 3 "C's" and once again the British Duration record to the London Gliding Club.

Conditions on Sunday were as good, the wind being absolutely square on the hill. The PRUFLING was now busy soaring in the hands of Messrs. Morland, Smith and others. Mr. H. Allan rushed back to London for his new SCUD and was rewarded by qualifying for his "C," putting up about 12 minutes. Major Petre, during a respite from official observation and timing, took up the PROFESSOR and wandered off with it quite a distance from the hill without losing the up-draught. Hiscox tried for his "C" on the HOLS but had bad luck and landed heavily on the top after 4¾ mins. Apparently he got into the eddy over the lip of the hill. The machine struck a bunker and damaged its shining red *nacelle*. The PRUFLING was successfully landed on the top several times during the day.

A Nottingham Delegate Airs His Views

[The following article for the views of which we are not responsible, is published in order that no one point shall be negelected. Mr. Bullivant is certainly right when he lays stress upon the necessity for Clubs to have a programme which looks forward to adequate soaring facilities.—ED.]

It was a little unfortunate that the Conference at Ilkley should have opened with a misunderstanding as to where things were going to happen, because quite a number of Delegates, like those from the Nottingham Club, lost a considerable amount of time on arrival, in trying to find out the where abouts of the Conference.

The Official Programme gave the "useful information" that the Headquarters of the Conference was at the Wells House Hotel and as a result people went there. Three-quarters of an hour after the Conference was timed to begin there was a rumour that the Chairman and Secretary of the B.G.A. had gone into Ilkley and some bright lad suggested that they were perhaps at the Ilkley Town Hall. Upon telephoning the Town Hall, it was discovered that the Conference was being held at the King's Hall. The party waiting at the Wells House Hotel immediately dashed to the King's Hall, and found Mr. Gordon England well in his stride, having started promptly at 10 a.m.

It is practically impossible to forsee every contingency when organising a Demonstration or Meeting, but this occurrence, as the fact that a number of visitors to the Conference had great difficulty in finding the ground where the Ilkley Club were giving a special display—when the posting of a few direction arrows along the thirty mile route, to the Ilkley Gliding Site, would have made this journey far easier—might have been avoided.

It was a great pity that, of the eight gentlemen who were on the programme to speak on various subjects, only four were able to be present, and there was also rather acute disappointment and some wonder that the B.G.A. were only represented by the Chairman and Secretary.

By far the most valuable contribution was made by Mr. F. L. Gardiner, who, in his paper on Club Organisation, Management and Finance, covered his subject extremely well. His paper proved that he had devoted considerable time and thought to this very important matter. All his ideas are well worth further discussion in each individual Club.

His suggestion that all Clubs should use a standardised method of book-keeping so that they could supply the B.G.A. with certain facts and figures, was one of the best suggestions made at the Conference. If the B.G.A. could inaugurate this system, they would be in a position to issue statistics on costs, which would be of great value to Clubs when considering the alteration of their membership fees.

With the exception of Mr. Gordon England's talk on the Devolution of THE BRITISH GLIDING ASSOCIATION (a suggestion which seemed to be in advance of its time), practically the whole of the other matter discussed at this Congress, has, at some time or other, been printed in THE SAILPLANE. The majority of the Delegates spent a lot of time and money to attend this Conference, and it does strike one that there are far more important matters which could have been discussed, with far more profit, had Clubs digested more thoroughly the information already published for their benefit.

For instance, the paper by Mr. Graham Humby on "Tuition by Catapult" which was read in his absence, has appeared practically word for word in THE SAILPLANE. The subject matter of the paper which was ably given by Mr. A. F. Houlberg on "Tuition by Auto-Launching and Towing" has appeared in THE SAILPLANE, either in the form of news from other Clubs or articles. Considerable time was spent on a discussion of retrieving devices, but practically all of these have been mentioned in THE SAILPLANE from time to time.

It was also felt that the information given in the paper by Capt. J. A. Lynch, on "Insurance," should have been well known by all Clubs who have been running their Club on business-like lines, as, when all is said and done, insurance is a very important item whether to a business house or a gliding club.

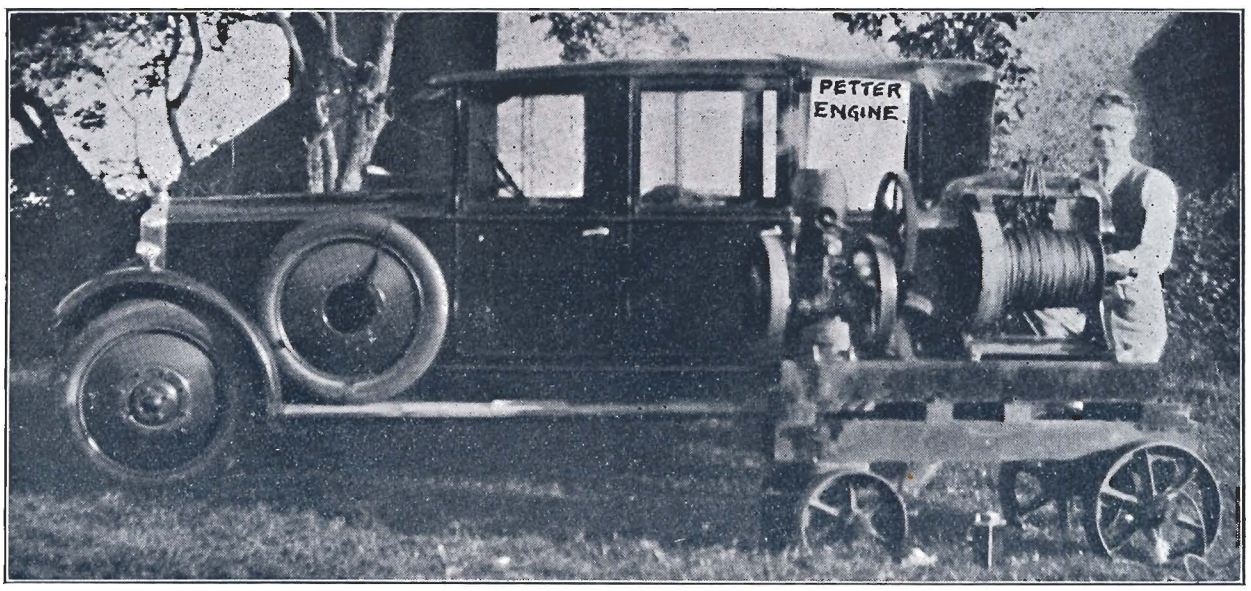
In addition to the lack of definite thought and plans on the subject of "Sailplaning," is was considered by the Delegates of the Nottingham Club that far too little importance was attached by the Officials of the B.G.A. to the question of Demonstrations and Inter-Club Competitions. The tenor of argument running right through the Conference, was that these were just "Side-shows," whereas in the delegates' opinion, they represent the main factor in the life and existence of Gliding Clubs.

I contend, without any hesitation, that if a Gliding Club cannot properly organise a Demonstration or even an Inter-Club Competition which will definitely produce a profit, they are doomed to failure, and it is the duty of the B.G.A. to give every encouragement and help for such demonstrations.

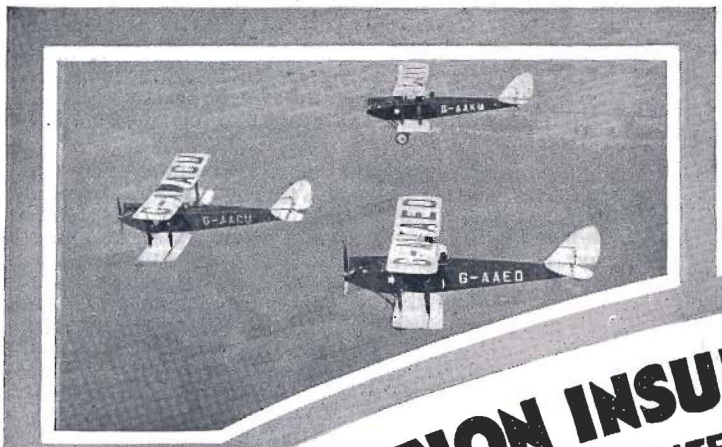
It was frequently stated at the Conference that Demonstrations were too risky, and a Club never knew whether they would finish up with a debit or credit balance until the Demonstration was over. That is perfectly true in a way, although it is hardly such a gamble as this would infer, provided the Meeting is properly organised. If that is done, the only element likely to affect the success of the Demonstration is the weather, but it is an easy matter to insure against this at a reasonable premium. Incidentally, this was a matter of Insurance which Capt. Lynch omitted to mention.

One of the methods of Club Organisation, put forward by Mr. Gordon England, was that Clubs should raise capital by the issue of Debenture Stock.

Now Debenture is only another name for loan, so that, in other words, this means borrowing money; but to borrow money on Debenture Stock also means that the script or share certificate which is issued, is actually a receipt



MEMBER-RETAINING.—The Petter winch as used by the Dorset Club to launch and retrieve their machines. A device which may need higher subscriptions, but increases membership.



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for the money borrowed, and forms the first charge on the assets whatever they may be. The difficulty is that no Debenture issue can be successful unless adequately covered by valuable assets!

What assets does a Gliding Club possess, of sufficient value to induce an investor to put his cash against an issue of this kind?

To be quite frank about the whole thing, we were very astonished to hear such a suggestion come from Mr. Gordon England, and, had it not been for the fact that we have heard him make this suggestion before in private conversation, we should have thought he was joking.

[*We are surprised that a business man of Mr. Bullivant's acumen does not appreciate Mr. England's suggestion. At least one gliding club has shown a decent yearly income can be made and to us it seems sound enough to induce public-spirited persons to take Debentures provided the interest is only the proper- proportion of the annual income.*—ED.]

I was sorry to notice that Gliding, with its little difficulties of launching and retrieving, was being treated as being the principal or only aim of those present. To my mind, Gliding is only the path to Soaring.

One Delegate revealed the interesting fact that in his club, they had an advanced section to which the subscription was £15 15s. 0d. This section was formed with pupils who were nearing the stage when they would be capable of handling a Sailplane. It is this phase which should have received more attention. I should like to hear more of Clubs forming an advanced section with an appropriate entrance fee.

Far too many Delegates revealed the fact that they were unable to make the necessary progress and run their Clubs on an economical basis owing to the fact that the subscriptions were ridiculously low. No club can be run on a subscription of £1 1s. 0d. or £1 10s. 0d. I would suggest that THE BRITISH GLIDING ASSOCIATION issue recommendations that all subscriptions should be increased to £5.

[*Surely Mr. England did do this. See the report in last week's* SAILPLANE.—ED.]

This, no doubt, would go a long way towards achieving the ultimate aim, which is soaring flight. If Gliding enthusiasts are not prepared to pay for their sport, their enthusiasm is not sufficient and the Movement would be better off without them.

As Mr. Gardiner pointed out, the sport has to be paid for, either in cash or labour. To turn your members into labourers, horses, engineers, etc., is a sure way of keeping subscriptions down, **but losing members.**

Mr. Gordon England revealed the fact that he had, for months been working hard, pulling all kinds of strings, to persuade the Government to help the Movement with a subsidy or grant, and he mentioned that in his opinion, £7,000 was required to establish a School.

One presumes that this School would be situated in the South, and from some points of view it is quite proper that this school should be near London. On the other hand it is going to be expensive for members of Scottish and North of England Clubs to attend this School.

I would suggest that the B.G.A. first obtains particulars of all the known soaring sites and send their technical Committee to inspect, say, six, which are the best both for soaring and for geographical position. Then they should approach all the gliding clubs within approximately sixty miles of the soaring site and encourage them to amalgamate. A real enthusiast would not object to travelling up to sixty miles if he knew he would get some soaring or some proper instruction in soaring. He would still obtain his primary tuition with his local club.

An amalgamation of ten or twelve clubs could easily afford to open a soaring school or club, and share one or more soaring machines. As the number of people requiring soaring facilities grew, the personnel and equipment would grow to meet the demand.

This method would not entail anything like an initial outlay of £7,000 although one assumes that the B.G.A. scheme would include facilities for technical research, which, although undoubtedly required to prevent England lagging behind in knowledge, could follow when finances allowed.

At the moment, one cannot blame the Government for its attitude that the Gliding Movement is not worthy of support. All they can see are clubs of from ten to fifty members, having no definite system of instruction, and in some cases, no proper club organisation or financial control, who are treating gliding as something to occupy their week-ends.

With very few exceptions, none of the gliding clubs have sailplanes, and again, with very few exceptions, no gliding clubs have any definite plans or programme for obtaining sailplanes, in fact, the urge to either obtain sailplanes or even to be in one, is not strong enough in the Movement generally, to keep it moving forward, and if the Movement has no ambition or urge, and cannot keep making progress, it is slipping back.

Even if it were not possible to get these amalgamations centralised and in working order, complete with sailplanes, this year, at least this important matter should be discussed so that club members have something to look forward to perhaps for next year, something to keep them keen.

The position in the majority of clubs to-day is that the early members, who have progressed up to the "A" stage, now have no further incentive to attend their gliding meetings. They do not feel inclined to haul the machine about and give instruction to beginners and in the majority of cases the Club terrain is not suitable for anything more than twenty-five to thirty seconds.

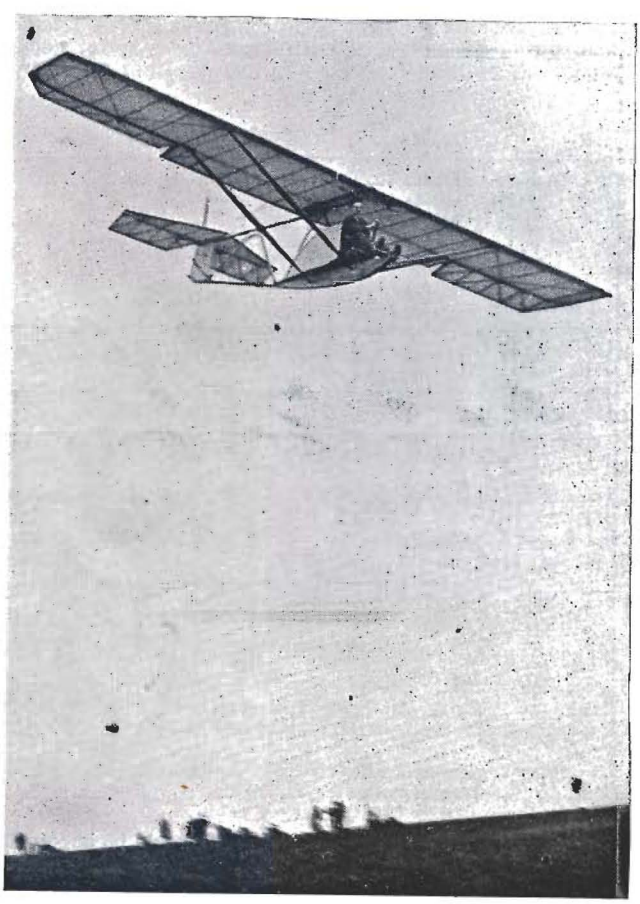
Tell these same advanced members that, if they obtain their "A" or if possible their "B," they will be eligible for membership at the Central Soaring Site. Let the Club control be such that if a member does not pull his weight in instructing new members and bearing his full responsibility, his Club will not elect him to go to the Central Soaring site. By this means the elementary training would still be undertaken by each individual Club but the Soaring instruction would be the ultimate aim.

The Nottingham Club have realised this weakness of the Gliding Movement and for some months have been crying in the wilderness.

I would most respectfully suggest to the B.G.A. that, unless they fully appreciate this lack of ambition and take steps to really forward the Movement, they will find that they will be complete with office equipment and staff but with a defunct club membership.

After the Conference, I had several little talks with other Delegates in an effort to obtain other opinions, away from the Conference atmosphere, and the general impression semed to be one of disappointment that matters of more importance had not been brought forward.—

W. S. BULLIVANT.



ACCRINGTON'S OWN.—The "Hanseat" Glider of the Accrington Club being flown by the Captain. The rigid bracing and the fairing behind the pilot should be noted.

CLUB FINANCE

[This article has been compiled from the paper which Mr. Gardiner read before the Ilkley Conference. It was generally acknowledged an able piece of work, and is the first paper to be published on this most important aspect of the Gliding Movement. —ED.]

The essential feature of Club Finance is control, and Club Organisation resolves itself into methods of control.

When I was about to give this talk, I was under the impression that there would be plenty of books on the subject of Club Finance. In this respect I was disappointed; our Town Librarian, after diligent search and enquiry, on my behalf, was only able to find one book on Club Finance, but it dealt with clubs of a very different type to our Gliding Clubs and dealt with the slight differences of procedure between Hotel and West-End Club Organisation. It therefore seems that the ground we have to cover is quite free, and we may air our views without fear that authorative statements may be quoted against us.

No one will deny that the finances of many Gliding Clubs in this country are in a chaotic state. In nearly every case the subscriptions payable bear no relation to the cost of gliding. As a first step towards recovery from this position, I would suggest that an attempt should be made to standardise the form of Account and Balance Sheets. I would ask the B.G.A. to give this matter their very serious consideration so that Clubs may look to them for the standard forms which will enable comparisons to be made with advantage to all Clubs concerned.

We will now turn to individual Club Finance. Most Gliding Clubs being "Member Clubs" have unlimited liability. One or two Clubs have provided against this by creating Private Limited Companies to conduct their affairs, but in the majority of cases, there is a danger that under certain conditions, due mostly to unbusiness-like methods of procedure, Committee members may find themselves saddled with personal liability for certain items of Club expenditure. Their best protection against this is the adoption of an official order book.

The great point to remember in Club Finance is that a Club has only one asset that can be used to pay its Creditors, **cash.** This issue is often obscured by members trying to offset their creditors against Gliders, which they claim to be capital items.

You will appreciate that Club Finance has quite different features to ordinary trading finance; but it demands, owing to our very small working margin, good methods and positive control. Control does not mean an expensive system of double-entry book-keeping, or the preparation of cost accounts. The whole system of books suitable for our type of Club should not cost more than 15s. Neither does it mean that the Treasurer and Secretary must spend many hours every week on the job. I maintain that the system which I will now lay before you would save their time.

The methods of control of Expenditure I suggest to you are:—

1. All Purchases to be authorised by Committee and Orders to be placed upon the Club's Official Order Form. The club official who receives the goods should check them with the invoice and the duplicate Order Form and if O.K. sign and pass to the Treasurer for payment.
2. The Order Book will, when toted up, give your list of Creditors (it is not necessary, in my opinion, to keep a Creditors' Ledger).
3. All payments to be sanctioned by Minutes in the Minute Book. One Committee Meeting a month should be devoted to this. At this Meeting the Treasurer should present his monthly statement.
4. Cash Book to be in Analysis form. This should be balanced each month and, if you like, certain members of the Committee can be told off to conduct an audit for the month. All money received should be banked and all payments made by cheque which should be drawn on two signatures.
5. The Register of Members may best be kept in tabular form in an Analysis book. This will enable the Treasurer to send out notices for renewal easily, as he will be able to see at a glance which subscriptions remain unpaid.
6. Official Numbered receipts should be given. This is more a protection against clerical error than fraud.
7. Minutes should be kept in a book—loose sheets in a file so easily get lost. Minutes need not contain narrative, but merely the Resolutions passed: e.g., **Resolved** that the following goods be ordered: Messrs. Blank—3 doz. Ribs at 1s.=£1 16s. 0d., etc; **Resolved**—the following payments be made: Never Pay Insurance Co.—3rd Party Insurance—B.A.C. II, £12 0s. 0d., etc. The Secretary has usually plenty to do. He will save himself trouble and have a better

TREASURER'S STATEMENT.

Dr. **Cash Book Totals after first month's operations.** **Cr.**

Flying Subs	Non-Flying	Other Receipts	Total Cash	Bank	Cash	Bank	Purchase of glider & trailer.	Repairs and maintenance.	Rent of Field and Workshop	Insurance.	Postages, Printing	Tools and Equipment.	Sundries
£180	£47 : 5		£227 : 5	£227 : 5	£227 : 5 c/d.	£180:14 46:11	£72	£5 : 14	£36	£12	£2	£48	£5
£180	£47 : 5		£227 : 5	£227 : 5	£227 : 5	£227 : 5	£72	£5 : 14	£36	£12	£2	£48	£5

Balance b/fwd. £46 : 11 : 0

Flying Subs. for month 1/12 of £180.	£15 0 0	Payments in advance : Glider 11/12	£ 66	Total Expenditure	£180 14 0
Non-Flying Subs for month 1/12 of £47 5 0.	3 18 9	Rent 11/12	33	Payments in advance.	154 0 0
		Insurance 11/12	11		
		Tools 11/12	44		
Income for month	18 18 9		£154	Payments for month :	£ 26 14 0

Income for month : £18 18 9. Expenditure for month : £26 14 0. Deficit of £7 15 3 for month.
Balance at Bank : £46 11 0 Less Creditors : Nil. Balance of Cash Subs. for remaining 11 months of year : £46 11 0.
Cash available for next month : 1/11 of £46 11 0 = £4 4 8. Other monies due to Club : Nil.

The Treasurer reports that the Cash position is weak ; and recommends an increased drive for new members be made ; and that an Entrance Fee of at least £2 0 0 should be charged in addition to Subscription of £3 0 0.

NOTE 1. From the Cash Book totals it would be impossible to see what excess of income or otherwise had been made on the month's activities.

NOTE 2. All receipts have been Banked, and all payments have been made by cheque. This being the best policy. Cheques on two signatures.

record by keeping his minutes brief and to the point.

8. The Treasurer's Statement. This must be a definite indication of the Club's cash position.

In the example the figures are fictitious, although the deficit shown may be typical.

The whole secret of Financial Control is Orderliness and if you conduct your club in an orderly and business-like manner, you will have an accurate knowledge of the exact state of your finance and you will have no one but yourself to blame if you find yourself in Queer Street.

I have not mentioned as yet anything about Demonstrations which I am inclined to regard as the Gambler's last throw. Demonstrations, incidentally, are things I do not like, and I believe, that if you are going to have them, long preparation and careful thought is necessary. One good show is worth a dozen flops.

Points to bear in mind are:—

1. Gate Crashers represent your profit. Tie-on tickets are therefore your best check.
2. The demonstration accounts should be cleared up if possible within a fortnight of the event.
3. Demonstrations should be financed by surplus cash.
4. A Pluvius Insurance covers a third of your risk; it does not cover wrong wind direction or fog.
5. £40 should cover the outlay on advertising, tickets, ropes, labour, police, etc.
6. The R.A.C. will take over Car Park arrangements for one-third of the Car Park gate.

The other forms of "chance" income such as Dances, Concerts, etc., are too well-known to discuss here.

Gliding requires the highest degree of team spirit and the co-operation which is accorded to the Ground Engineer and Instructor must be extended also to your Secretary and Treasurer. Disasters which befall clubs are very often due to a lack of this team spirit. **Espirit de corps** is a great asset.

There is one point which, though it affects the Club finances indirectly, should be considered by the full committee: the formation of a Junior Section. There is no doubt that many Clubs find that they are unable to get sufficient members to assist in repairing the machines after their periodic crashes, and there are no supporters so enthusiastic as you average schoolboy. It is a pleasure to him to be allowed to assist in the repairing and building of gliders, and although is seems unkind to say it, cheap labour cannot be ignored.

A further point is that after reviewing last year's results few clubs are in a position to provide secondary machines. It might, therefore, be a matter of club policy, if we are to retain membership, to encourage group ownership. Again, training methods leave a decided impression, the repairs account. Now that Towed Gliding has been so thoroughly explored, that method of training must be considered. It has one great advantage which no one as yet seems to have pressed, and this is a matter which materially affects finance. Owing to the shorter interval between the flights, Towed Gliding will permit of more flying members being handled in an afternoon's working. This means that you can increase your flying membership without spoiling anyone's chance of a flight. Comparative figures of the alternative methods of training would be interesting.

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Reactions to Ilkley

No more inspiring feeling could have been gained at any Conference, than at "The British Gliding Association Conference" at Ilkley.

If the Conference proved nothing more, it proved that the Gliding Movement is getting on its feet, and if the amount of progress next year is equal to the amount of progress which the Movement has made this year, then the "Movement" will have to be re-named the "Institution."

It is not my duty to criticise, or to even review the work done at the Conference; I am writing rather in the capacity of one who was there as an interested spectator. Among the points which were brought out, I think there are some, which did not receive quite enough attention. One came up in the discussion on "Club Finance and Organisation," and was the question of club "Policy," and yearly programme.

We heard persistently the cry for soaring, and we were asked to believe that the forming of a central school would definitely help us to obtain our soaring. Apart from the Chairman's remark about the overhead costs of a school, the speakers did not seem to realise, that even if we did get a school, we should have to find the time to attend, and then we should have to learn. All of which costs money and time.

On the other hand, one speaker got up, and emphasised the lack of club "Policy." He went on to explain that very few clubs had even a yearly programme for training their new pilots.

It seems to me absurd that clubs should call themselves "Gliding Clubs," and yet say that they want a school where they can learn to glide. I myself joined a club so that I could learn to glide, not to be told to go to a school, and learn there. The idea of three annual camps run by my club appeals to me immensely, and I feel that it is their duty to provide that opportunity for me to learn to glide.

Surely it is not too much to ask them to hold their various competitions and demonstrations on any of the many week-ends away from the "Three National Holidays," when I shall be free to learn and later practise the arts of motorless flying? I heard, while up at Ilkley, that, the London Club had already held numerous such camps, and had found them a very great asset. Moreover, the Ilkley Club themselves held such a camp and did an immense amount of training, I believe.

Another point upon which I think stress ought to be laid, is the building of machines. Each club ought to be able to raise quite an appreciable amount of free labour. If a club cannot afford to build a machine, they at least ought to have a try at building one. I should imagine that this would greatly cut down costs, yet I was amazed to hear, "That it was too difficult work," etc. Perhaps some bright manufacturer, will start to sell plans, metal parts, and semi-built machines.

[*The Cloudcraft Company does.*—ED.].

Lastly, but not least, I am even more amazed at the comparative ignorance, that would-be soaring pilots show about weather conditions, and soaring capabilities of machine. The wind up at the Ilkley Club's ground on the Sunday was blowing at about 8 to 12 m.p.h. After a certain gentleman had made a splendid attempt to soar without ever having tried that particular ground before, I was amused to overhear a man, who has ambitions of learning to soar himself, remark to a friend: "Well, I at least expected him to soar for ten minutes, on that slope." He never even thought that the wind was nearly travelling parallel to the particular slope which was used, and at the time was only registering some 6 m.p.h.

And now, before I close, may I state an awful truth? I myself was much more in ignorance than the would-be pilot, before the Conference. Previous events, during the last two months had lead me to believe that the whole movement was only a passing phase.

I was wrong. What I had mistaken for dying enthusiasm, was only a groping after the light. I realise that the Movement is not built for exploitation. I realise that it will never be able to boast large fleets of machines, or star-turn pilots by the hundred; it will never be on the same lines as the up-to-date flying club.

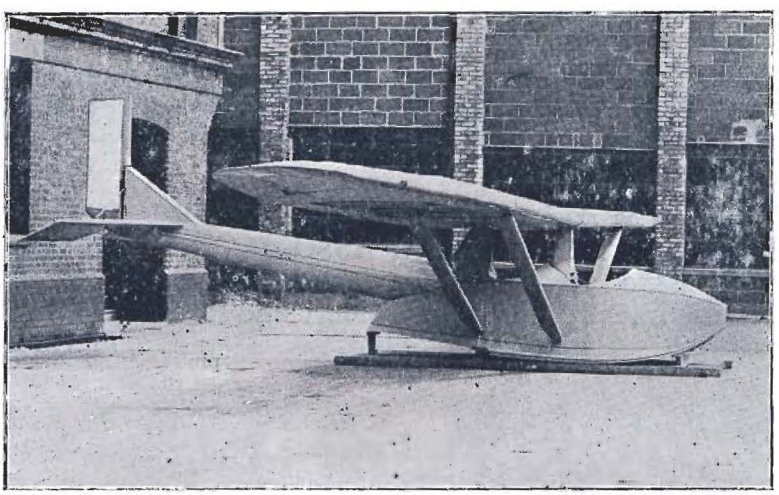
[*Why ever not? What about the Club with a paid ground-engineer and hangar?*—ED.]

It will be something far better. No individual will ever make it a success, an individual will only help to ruin it. It will stand by team work, **and only by team work,** both on the flying field and in the workshops.

Of that I am convinced, and surely no better ideal could be found for an English Sport? It is nothing new, only typically British, and that is one of the chief factors I failed to see before the Conference.—"SEGELFLIEGER.

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THOUGHTS ON THE "DAILY MAIL" COMPETITION

What has been the effect of the cross-Channel flights by Herr Kronfeld on the British Gliding Movement? Of course, having in mind the reactions of the public to any thrill now that the silly season draws nigh it was a laudable piece of enterprise on the part of a national newspaper to make "copy" and capital out of a gliding competition. It was praiseworthy also to encourage pilots to do something that had never been done before.

From the point of view of public interest it was perhaps a great pity—even if it was inevitable—that the Channel was crossed and re-crossed on the very day that The Daily Mail competition opened. Kronfeld has captured the prize and so the "stunt" has ended, whereas a series of gallant failures extending over several weeks would have rascinated the public and enlisted much virgin interest in the Movement. Every sportman congratulates the Austrian champion on his prowess, but I think I am not alone in the belief that the entire affair has done very little real good for British Gliding.

Experts tell us that gliding the Channel is not an extraordinarily difficult feat. Mr. Lissant Beardmore, who whatever the official attitude may be, decidely took the metaphorical wind from Daily Mail sailplaning, is not even a "C" pilot. He got across and, while nothing should be said against his performance, his crossing does go to prove that the feat was not inordinately hard. The Sailplane report and barograms showed that no soaring was involved at all.

It seems almost superfluous to add that to allow aeroplane-towing at the start of the flights was to take away nine-tenths of the difficulties at once. Whether The Daily Mail appreciated this, whether the fact was pointed out to them by the B.G.A. I do not know. Anyhow, it is regretable that a large cash prize was offered for a performance relatively facile of accomplishment and well nigh worthless for what it teaches. We all jolly well knew it could and would be done.

THE CELLON PRIZE

Britain and the gliding world will really have something to shout about when the Cellon prize for a cross-Channel flight is won . . . or even competed for. In reading all this you must remember that the opinions herein expressed are entirely my own, and neither the B.G.A. nor The Sailplane have any responsibility for them. I want to be outspoken all the time and to be chastised and corrected if and when I am wrong. The critics have their chance right away when I tell them that I have a strong hunch that the elastic rope—as stipulated by Cellon Ltd.,—is the right impetus for gliding and soaring **not** auto-towing in any shape or form.

What is the point in cutting off from a tow rope at a height of umpteen hundred or thousand feet? It's easy enough to come down, one way or another. We must teach our members to climb and not spoon feed them into slithering down from ultra-artificially attained altitudes. By all means use labour-saving apparatus in connection with the shock-cord launch—mechanise it as much as you like after making sure your mechanism is fool-proof. . . but do teach your members to get off the ground by this method, teach them to climb for themselves, just as Kronfeld had to learn. We can't cut out patience as the essential virtue in learning to soar. Auto-towing, I hold, is impatience automatised and the more we do without it the faster will our real progross become. These remarks are applicable to anyone who regards soaring as something more than a sport. Of course, it is great fun to toboggan and very thrilling—that's all.

GET UP TO IT

It may be thought that much can be cut from my argument by a reply pointing out that a tow off the ground by car merely to quite a modest height makes soaring so much simpler. Granted, but if soaring is ever to be of any evational utility on a widely democratic basis people should be taught to leave mother earth by their own skill. Study and experiment seem a tedious means compared to the motor car cable, but in the end I think they will be found the shortest cut. All the time we gliding folk should keep our ultimate purpose clearly in view.

Elastic cord work—indeed gliding of any nature at all—present big difficulties to a host of clubs. Closely-knit territorial federations may prove to be their salvation, federations with the motto, "One for all and all for one" as the very keystone of their structure. Let us pool our sites, our resources, our members even, in appropriate areas. Let these areas be self-governed by folk with enthusiasm and foresight, by folk with faith in gliding. Away with internecine jealousies and indifferences among our clubs. Extend the fine spirit of co-operation that the northerners display.

WANTED — A PROGRAMME

It may even be that there are too many gliding clubs in Britain. So many units were started without any real ideas of what progressive gliding involved, or for that matter without any realisation of what the pursuit entails at all. But not enough people are interested in gliding and the right sort of helpfulness is not forthcoming from the powers that be. The B.G.A. is not to blame, because it is not equal to the task of consolidation under its present constitution. We should change it, and make the different areas carry out the donkey-work. When are we going to get a **programme**? A Five Year Plan, if you like. We are in vital need of something of the sort. The club conference at Ilkley may do a little to help matters.

We are in dire need of some more useful competitions on the lines of the Cellon contest, which is still open. Cellon Ltd., I believe, limit entrants to British pilots and British machines—there's Protection for us with a vengeance. Mr. Lowe Wylde, Mr. Dagnall and a heap of pilots ought to be sighing for a start. I think they must be and I do hope we shall hear that they have plans ready before many more moons have passed.—"DORSET GLIDER."

CORRESPONDENCE

(An American View-point)

Dear Mr. James,—I was very glad to receive your letter of April 30 and it pleases us very much that you find our report* interesting. However, we are not at all surprised at your discovery that we do not seem to be particularly interested in soaring. We have three very good reasons for our lack of interest.

The first is that the nearest locality where real soaring could be satisfactorily taught and carried out is about 250 miles from Detroit, along the eastern shore-line of Lake Michigan. The Michigan Council of Glider Clubs, which is affiliated with the National Glider Association, has secured ground about 40 miles from Detroit where they have a few small hills about 150 feet high. This is the very best soaring terrain anywhere within 150 miles of Detroit.

The second point is that soaring requires a considerable amount of time. All of our members are men who must work for a living and must do our playing in the the few short hours after work and on Sunday morning. The amount of time we could spend in soaring is very limited. We desire to fly gliders only because we cannot afford to fly a powered airplane even of the cheapest kind of doubtful safety. Consequently, we turned to auto-towing as the only way in which we could get in the most flying in the time available. Also the type of flying carried out when auto-towing is more closely comparable to taking off and landing a power airplane. Since our ultimate aim is to become fliers, the experience thus gained will be more beneficial when proceeding with instruction in power flight.

The third point is that as far as we can determine a good soaring glider is about as expensive as a light airplane. The cost of handling when moving from one place to another is no small item. We were able to purchase two primary training gliders for the cost of one soaring glider and our expenses for two seasons will not be much over $1,000 (£205), which includes the purchase of two gliders, the maintenance and operating expense of gliders and tow-car plus erecting a hangar to house both gliders, so you can see that divided among approximately thirty men the expense per man is not very great and I think the results we have obtained indicate that our judgment is fairly satisfactory.

Yours very truly,

(Signed) T. O. RICHARDS.

[**This report was published in* The Sailplane *for May 1 and 8, 1931, under the heading "Tuition by Auto-Towing." The release-device used by Mr. Richard's Club was also illustrated. Herr Kronfeld has recently demonstrated in England that soaring flights can be made over quite flat country. However, not everybody wants to soar and no doubt there are readers of this paper whose interest in gliding may be compared to that of those enthusiasts of Detroit who saw therein a way to apprehend the niceties of powered flight.*—Ed.]

Official Notices

NEXT COUNCIL MEETING

The next Council Meeting will be held in the Library of the Royal Aeronautical Society, 7 Albermarle Street, W.1, on Monday, September 7, at 6.30 p.m.

NEW MEMBERS OF THE COUNCIL

Mr. E. Noble, Esq., representing the North Cotswold Gliding Club and Mr. Thurstan James, Editor of THE SAILPLANE.

NEW MEMBER OF TECHNICAL COMMITTEE

Captain Max. Findley has been co-opted a Member of the Technical Committee for the purpose of giving his expert advice on aero-towing.

NEW MEMBERS OF THE B.G.A.

F./O. C. E. Kay; Mr. C. Elliott; Capt. F. Entwistle; Messrs. F. L. Gardiner; E. Noble, F. G. Enser; Dudley Hiscox; and Lord Malcolm Douglas Hamilton.

OBSERVERS

The Council has approved the following:—

North Cotswold Club: Miss E. Moore; Messrs. J. Whitehouse and T. G. Nyborg.

Accrington Club: Messrs. J. M. Bainbridge; E. Sharples; and E. L. Ashworth.

South Essex Club: Messrs. N. C. Jaggers; W. Hammond; and E. Morton-Hicks.

Dorset Club: Messrs. S. E. Wells; N. W. Wright; and V. S. Gaunt.

Ilkley Club: Messrs. B. Hartley; and F. T. Greenwood.

Ulster Club: Major R. G. Heyn; Messrs. B. McFall; P. H. Bester; and J. S. Scott.

North Kent Club: Mr. J. Prangnell.

Wilts Club: Mr. C. T. Cuss.

Southdown Club: Mr. E. K. Robbins.

REGULATIONS GOVERNING THE ISSUE OF LICENCES FOR THE CARRYING OF PASSENGERS FOR HIRE OR REWARD

1. The Technical Committee shall, for the time being, be the sole arbiters as to the qualifications and suitability of any Candidate for a licence to carry passengers for hire or reward, and that full conditions or regulations as to the terms upon which the licence shall be ganted will not be issues for the present.
2. Licences will be renewed annually.
3. The Technical Committee reserve the right to revoke a licence at any time.
4. The fee payable for a club pilot of a passenger-carrying machine not plying for hire or reward will be 5s. per permit (not transferable) and for a pilot's permit for the carrying of passengers for hire or reward will be £5 5s. 0d.
5. All passenger-carrying pilots must be in possession of the "C" glider pilot's certificate.
6. Passengers shall only be carried for hire or rewad on machines possessing Certificates of Airworthiness issued by the B.G.A.

REGULATIONS GOVERNING AEROPLANE-TOWING

(Provisional)

1. No sailplane, or glider, shall be used for aero-towing unless in possession of a current B.G.A. Certificate of Airworthiness duly endorsed for aero-towing. Proof that the necessary strength requirements have been complied with will have to be shown.
2. Gliders shall only be towed by aeroplanes properly equipped for aero-towing, approved by the Air Ministry, and with the Certificate of Airworthiness endorsed to that effect.
3. The towing cable shall include a "weak-link" to fail at a load equal to the loaded weight of the glider. The link to be fitted at the glider end of the cable.
4. The strength requirements, extra to those for normal category gliders, are:—
   a The fuselage shall be capable of withstanding a load at the cable attachement position of 200 lbs. horizontally, changing to 400 lbs. vertically, with a factor of 2.
   b Suitable drag-bracing shall be present. A towing speed of 45 m.p.h. has been assumed.
5. No elementary training type of glider will be approved for aero-towing.
6. Only pilots in possession of a "C" Soaring Certificate will be allowed to pilot gliders being towed by aeroplane.

A DISCLAIMER

We are asked to publish the following statement by National Flying Services Limited:—

"Advertisements have recently appeared in the provincial papers associating National Flying Services Ltd. (and/or the Hanworth Club) with a scheme for training pupils to be professional air pilots. These advertisements, which are published in the name of Anglo-American Air Service or of Mr. J. Oxley, of Gerrards Cross, quote a fixed sum for the training, ask for deposit payments and hold out hopes of employment at the end of the training.

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