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THE SAILPLANE AND GLIDER

Price 3d.

GOOD PROPAGANDA.



Herr Magersuppe in the two-seat "Scarboro" taking-off for one of the soaring flights with a passenger which have done so much to interest the North in Gliding. We hear that Herr Magersuppe is now to continue demonstrating for a private concern.—*(Copyright Warren Thompson, Scarborough.)*

SCIENTIFIC ENDEAVOUR.

The Gliding Movement in this Country is remarkable for the fact that its supporters are on the whole only interested in its sporting aspects. Generally speaking, members of Clubs want to fly; some want to fly without an engine because it is more difficult that way and some because it is cheaper. In fact the greatest justification that the Movement has shown for its existence is that the Clubs, however precariously, have brought the possibility of flight within the reach of thousands who in no other way could have learnt the way to handle the controls of a heavier-than-air craft,—and that without a subsidy.

Elsewhere Motorless Flight is being very strongly supported by those engaged in scientific research. That is those who are trying to add to the world's accumulated knowledge of accurately recorded facts. Ultimately man's achievements are based on the selfless investigations of those who toil to sow that others may reap. There must be a few people in England who see in Motorless Flight the opportunity to investigate in a new way aerodynamics, and a practical method of attacking those problems of meteorology whose solution would elucidate the structure of the atmosphere.

THE SAILPLANE is not unmindful of such possibilities and indeed has frequently laid emphasis upon the scientific aspects of Motorless Flight. Scientific researches must be encouraged and helped. They must be represented in the organ of the Movement and their activities recorded. We offer our co-operation as we are convinced that a start must be made to collect together such information as exists and to preserve it for future reference.

We therefore make an appeal to the small percentage of our readers who are interested in the scientific aspects of Motorless Flight and who are equipped to approach the problems in the proper manner, to express their opinions as to how a start should be made. Our own view is that once a month a page or two of THE SAILPLANE should be devoted to a serious scientific discussion of new theories and discoveries in the research departments of the World.

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THE "AUSTRIA."

Ku 4 is the official name for the *Austria*, as Herr Kronfeld's latest sailplane is called. This has been designed by Doctor Kupper, who was responsible for the design of the *Kakadu* (Ku 1), which belonged to the Munich Academical Flying Group. The *Kakadu* was built in 1928 but was modified slightly and was one of the most interesting machines in the 1929 competitions at the Rhon, of which a report by Herr Lippisch can be found in the third number of the B.G.A. Journal.

The *Austria*, which like the *Kakadu* is an unbraced high-wing monoplane, has a more pronounced camber than its prototype. Its wings are also more highly tapered, and not only is the fuselage reduced in length but twin fins and rudders are used.

It has been considered worth while to sacrifice manœuvrability to improved gliding angle, as it is felt that more can be gained by increasing the limiting range between one area of uprising air to the next than by having a machine which can easily circle round to gain height or wait for a cloud. The gliding angle of the *Austria* as measured at the Rhon is said to be 1:31.

At speeds above 50 m.p.h. a negative pressure appears under the nose of the Göttingen 652 section which was used for the *Kakadu* and this has a serious effect on the gliding angle. The section used for the *Austria* has therefore been modified though without any wind tunnel tests.

The wing has been made in four pieces to facilitate transport. The inner sections each of 30 ft. span are of trapezoid form and attach to the neck on the nacelle which is only 16 in. wide. The outer sections are of 18 ft. span.

The principal strength member of the wings is an "I" spar built up from strips of pine-wood (spruce?) and plywood. The upper surface of the wing as well as the underside is covered with plywood with its fibres arranged at 45 deg. to the line of flight. This rigid covering is continued to the auxiliary spar, on which are mounted the ailerons.

The wing-couplings on the main spar are ingenious and operated by a special key which screws conical pins into seatings in the female coupling. These couplings socket into each other and the inner or male has a pin screwed right and left hand at opposite ends. Thus by rotating the pin the conical ends are screwed outwards or inwards. This arrangement obviates any large openings in the wings and makes for rapidity of disassembly.

The auxiliary or aileron spars have simple couplings with vertical pins.

The ailerons extend along the whole of the trailing-edge and are in six parts. This has been done as there is some difficulty in working an aileron of such enormous span in one piece. Also because the camber of the wing varies and the ailerons will have to be rigged differently along their length.

The ailerons are of welded steel tube covered with fabric. They are operated by push-pull rods to bell-cranks within the wing. These bell-cranks are operated by double wires. Very ingenious couplings are used at the wing joints and these are entirely automatic in their joining up. Ball-ended push-rods on one lever are sprung into sockets on the other lever and as the forces are transmitted by compression once the wing-joint is locked up no positive coupling is needed on the push-rods.

The ailerons can also be operated as flap gear from the cockpit by the pilot who has a separate lever for this operation.

So large a wing as that on the *Austria* is bound to sag on landing, the outer portions are also at a slight anhedral angle so for these reasons the wing-root must be high above the ground. It is also desirable to keep the tail-unit as high above the ground as possible and for this reason a novel form of fuselage construction has been used. The tail-unit is carried by a tubular spar from the wing root and from a long neck depends the nacelle in which the pilot sits.

The skid of glued ash strips is supported beneath the nacelle pneumatically and stayed laterally by rubber cords. The whole of the skid is faired with canvas to the nacelle. At the after end it becomes rigid and is supported by a block of compressed rubber. Aft of this and at its trailing edge is the quick-release device which is operated through a Bowden cable by the pilot.

The tail-unit consists of a tail-plane with two fins and rudders at its extremities. The fins and rudder are built like the wings of plywood, but the elevator and rudders are fabric-covered welded-steel tube structures. The rudders are operated by pedals which are so arranged that if the pilot presses hard on each and then quickly releases the pressure both rudders are pulled outwards, thus acting as air-brakes.

The main couplings throughout the machine are of the type already described for the wing. This arrangement makes for speedy assembly and also means that every bolt is in its place and does not have to be found.

Dimensions and Areas.—Span 30.00 m. (98 ft. 5 in.), Wing area 34.97 sq. m. (376 sq. ft.), Tail-plane and elevator 3.33 sq. m. (35.8 sq. ft.), Rudders and fins 2 by 1.04 sq. m. (2 by 11.2 sq. ft.).

Weights and Loadings.—Complete wing and ailerons 263.3 kg. (580 lbs.), Complete tail-unit exclusive of tubular spar 31.1 kg. (68.5 lbs.), Body, skid and instruments 98 kg. (216 lbs.), Weight empty 392.4 kg. (864 lbs.), Pilot 70 kg. (154 lbs.), Parachute 7 kg. (15.4 lbs.), Flying weight 469.4 kg. (1,034 lbs.), Wing loading 13.43 kg./sq. m. (2.75 lbs./sq. ft.).

FLT. LT. LEEROY BROWN.

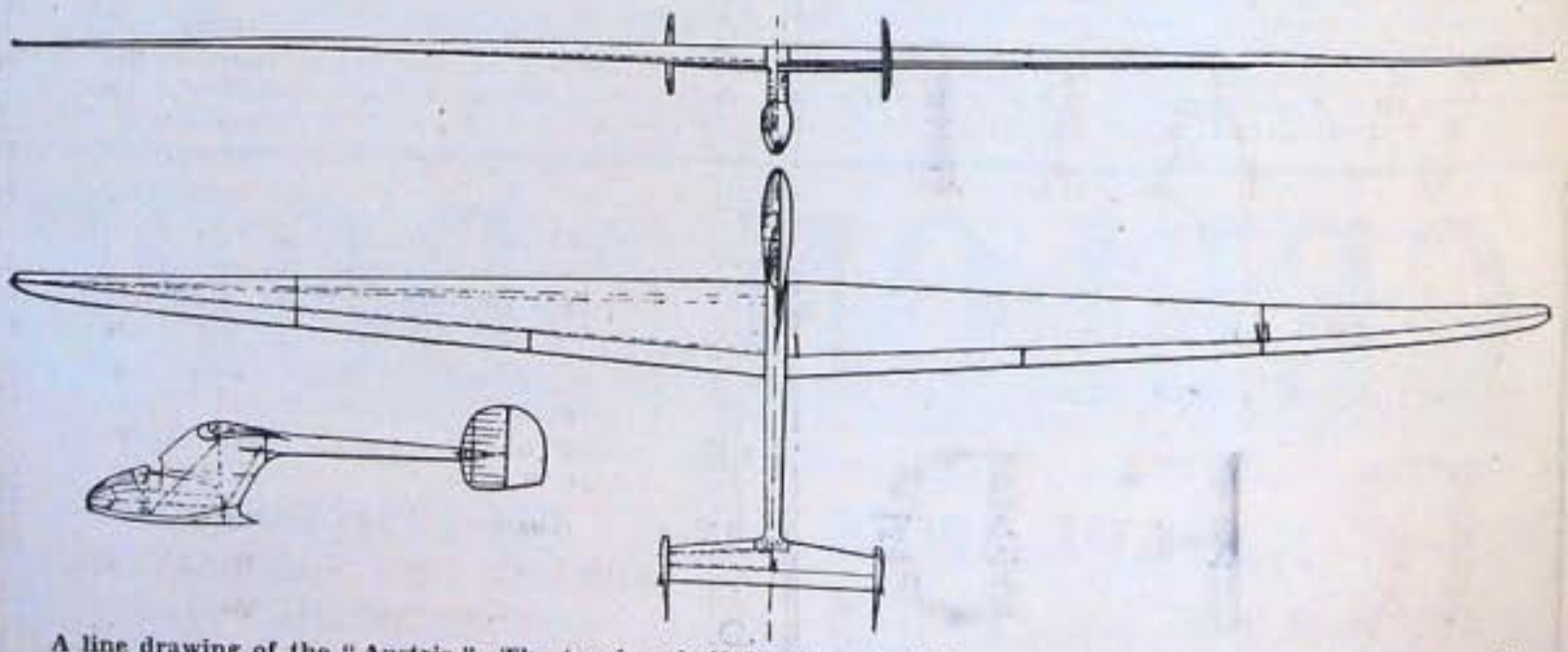
Mrs. Brown writes to say that she has received so many inquiries that she will be glad if we would tell the many friends of Flt. Lt. Leeroy Brown, D.F.C., R.A.F.O., who is Chairman of the Southdown Skysailing Club, that he is making a very satisfactory recovery. Readers of this paper and friends of Mr. Brown will remember that he was severely injured on Jan. 4 as a result of flying a glider with crossed elevator controls.

HERR URSINUS SENDS GREETINGS.

Herr Oscar Ursinus, who is so well-known here as the outstanding pioneer of the German Gliding Movement, and is as well Editor of that excellent periodical, *Flugsport*, has asked The Sailplane to tell his many friends in this country that he returns their good wishes very heartily. He says that he has been sent so many New Year Greetings from this country that he could not return them all.

SUCH IS FAME.

We notice as illustration to an article in the Bulletin of the Argentine Aero Club called Human Flight, an excellent picture of the London Gliding Club's two-seat Poppenhausen on top of Ivinghoe Beacon. The article goes on to announce the formation of a gliding section by the Argentine Aero Club.



A line drawing of the "Austria." The top is a half front, and half rear, elevation. Photographs of detail parts will be published next week.—(*Courtesy of "Flugsport."*)

FUNICULAR FLIGHT AT HANWORTH.

On Jan. 25 an energetic day's work went to the credit of Mr. Lowe-Wylde, his two B.A.C. gliders and the tow-flight enthusiasts of National Flying Services. About sixty flights of various lengths were made during the morning and afternoon; the most regrettable feature of the display was the number of breakages. These were confined entirely to the towing lines, however, so they merely slowed down operations at the same time as they added knots.

The wind varied between 15 and 25 m.p.h. all day, which is not the most favourable weather for machines of such low flying speed. The morning was devoted to registering the evolutions and remarks of the party on three attendant noise units. Colonel the Master of Sempill achieved ubiquity by means of a patient dapple-grey steed and marshalled events from all points at once.

The breakage of the cable, which was one of stranded steel, seemed due largely to kinking. Mr. Low Wylde's practice of steep and rapid climbing parted it several times and some time elapsed before he was able to gain enough height for a full circuit and a landing in front of the cameras.

In the afternoon the intermediate trainer was brought out as well as the more advanced type used during the morning. Both were kept going constantly with a variety of pilots, but the rope used for the second machine also showed a tendency to break. The fact that both gliders were repeatedly released by these accidents when in thoroughly stalled attitudes reflects well on their safety because not a single abnormal landing was made. The special Goodyear Airwheels, mounted by the simplest of undercarriages apparently right under the centre of gravity of the glider, worked admirably. These airwheels have been developed specially for gliders and weigh but a few pounds. The machines are designed to land on the skids alone, but with the wheels the skids only came into use when the machines tipped forward during towage.

The whole success of the method depends on the driver of the car, and in the preliminary stages—when no great height is reached—seems fool-proof as far as the occupant of the glider is concerned. The machines will stand any amount of yawing and tipping and dragging at the end of the cord and gain a good deal of stability from the steady pull. One lady pilot who tried it said that she felt as if the swinging were all wrong, but once she realised that the machine was not suffering she felt quite safe and ready to wait until things came right.

The wind was too strong for a real *ab initio* trial, which would have been very interesting.

Among those who made trials of the machines were Mr. Marcus Manton, Sq. Ldr. T. H. England, Mr. Cordes, Lt.-Col. Louis Strange, Mrs. Bramson, Miss Reynolds, Flt. Lt. Schofield, Mr. Pennington and several others. Because of the high wind not many ventured to turn down wind and attempt circular flights. One such attempt at least was cut abruptly short and changed to a S-turn which finished somewhat into wind in the shelter of the central copse.

A gliding section of National Flying Services seems imminent, and the interest of the public at large, who came in crowds to look on, seems to imply an interest which arises from something more than mere novelty. Probably it is the human element, which is much more prominent than in powered flight. There is more intimacy and less—to the ordinary citizen—of the unattainable about it.

Among the interested visitors was Mr. Handley Page. He refrained from aerial endeavour, but did an impressive solo on Colonel Sempill's horse.

Incidentally a busy aerodrome seems hardly safe for any but elementary towed flying. Circular flights are always made over or very near the aerodrome, and the glider may not be very noticeable to incoming aeroplanes.—F. D. B.

SOUTH AFRICAN NEWS.

The Cape Town Flying Club and the Western Province Gliding Association have amalgamated, more or less under the ægis of Aero-Services Ltd. Operations are to be based on Wynberg Aerodrome.

GLIDING IN AUSTRALIA.

If one regards gliding in Australia on the basis of glider pilots per 100 of population, it would seem that the Commonwealth is considerably more interested than this country, for in Victoria alone the membership of the Clubs is expected to reach the 1,000 mark shortly. There is a move afoot to form an Australian Gliding Association which shall be affiliated to *The British Gliding Association*. Already there is an association of Clubs in Queensland, and the Victorian Clubs are expected to join the Gliding Club of Victoria, each component Club will retain its title with the addition of So-and-So Club, Section of the Gliding Club of Victoria.

So far most interest in gliding appears to be centred in Victoria and Queensland. All of it at the moment appears to be done on primary gliders, either car-towed or catapult launched. Even then Mr. Pratt, of Geelong, as reported in THE SAILPLANE, has soared for five minutes with a passenger on his own brand of Zogling!

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MR. HALLER ON AUTO-TOWING.

[Through the courtesy of Colonel The Master of Sempill we are able to reproduce part of a letter from Mr. A. C. Haller, who has many friends in the British Gliding Movement. Last Summer Mr. Haller broke the American Distance Record with a flight of over 21 miles in his sailplane The Schloss Mainberg. *Comments upon auto-towing from such a master of his craft will be received with a proper appreciation.*—Ed.]

I have not until now been in a position to give you any truthful or accurate information on the automobile launching and towing methods used in the United States. In fact, I was not convinced at first of its practicability. Since my return, however, I have found it is not the demon of destruction it was painted by the German boys who were viewing it at a distance and with heartfelt disdain. It is true that a number of pilots were killed by doing things with Zoglings towed by automobiles that should not be done.

Some of the things that should not be done are: towing down-wind or cross-wind, because the speed necessary is too great in the first case and the control reaction is not accurate in the second case; *towing a machine through curves is the most dangerous practice*, as the banking in this is not that of a normal flight curve due to the pull on the cable. Zoglings and other primary 'planes should not be towed at speeds any higher than is necessary to lift them 4 to 5 feet off the ground as they do not have enough horizontal control to overcome the vertical pull of the tow cable at higher altitudes. Too strong a tow cable should not be used (½-inch Manila rope is plenty strong enough and it will break in case the loads become too great—a short length of standard ¾-inch rubber shock-absorber cord may be used in combination with the rope to allow for more elasticity). I do not recommend the auto-tow system until two reliable pilots have been assigned to experiment with it and they have had enough experience to feel able to instruct others.

An automobile with quick acceleration is required, on which should be mounted an air-speed indicator with the venturii or pitot tube mounted on a mast about 10 to 15 feet above the car. [*Would an airspeed indicator be reliable at these low speeds*?—Ed.] It might be found advisable to make it adjustable to different altitudes. A rear vision mirror of good size so that field of vision to the rear is quite large, is also necessary. The Manila rope, ½-inch diameter, 300 to 400 feet long, should be used with two simple manual release hooks. One mounted on the car to be released by the driver, and one on the plane to be released by the pilot. The glider should be equipped with a single air wheel, or in the case of a Zogling, two wheels of small diameter and with the smallest possible tread, so as to reduce the lateral stability thereby making it possible for the student to become accustomed to the lateral controls without leaving the ground. Also with Zoglings the wheels should be placed nearly under the centre of lift or in other words slightly behind the centre of gravity so that when the plane is at rest or travelling at slow speed the plane noses down and the skid acts as an automatic brake. This also keeps the tail from coming in contact with the ground when the plane is being towed at slow speed, and thereby eliminates a lot of repair to this member which is not designed to take too much shock.

The student pilot should first be taxied down the airport to become familiar with the controls. His first and hardest job, even in the case of an experienced pilot, is to learn to keep the plane straight behind the car, this familiarises him most thoroughly with his most important control. During this period the student should be told not to attempt to use his elevator but to hold it in as near a neutral position as possible. It might even be well to limit the elevator's travel after a neutral position or a slight tail-heavy position has been determined for it, as the rest of the horizontal control, in this case, can be controlled by the car driver either increasing or decreasing his speed, as the plane at rest on its wheel is slightly nose heavy. It will be found that by the time the student has mastered the rudder control he need be told very little about the lateral controls, as he has unconsciously become accustomed to it by just holding the stick. After a very short period of time it will be found that the student can handle the elevators and all the controls well enough to be towed the whole length of the airport and keep the plane one or two feet from the ground *provided the car driver has learned to control the speed of the car and keep it fairly constant.*

The fact of the matter is that the greatest burden of all rests on the driver, as he must know his job perfectly. He can pull the student out of a slip by slowing down or releasing when the slip is bad. In case the student is stalling he can set him down on the ground by just keeping the rope tight and gradually slowing down. There are numerous other little tricks the driver can learn by experience that are almost impossible to explain in writing. That is why I suggest that you assign two pilots to experimenting before you promote the idea too much among individuals who might be prone to carelessness such as many of our American pilots were.

You will probably find that a secondary machine such as the Prufling is well adapted to auto-towing and is even better than the Zogling, as this has proved true in this country. The secondary types have to be used in the advanced stages of the work and are just as serviceable as the primary types and are not any more costly to keep in repair.

For the very first flights with students it would be well to use about 100 feet of rope so that the driver can steer the plane back on its course by jerking the nose when the plane comes out of line with the car, also that too much altitude cannot be got too early in the game. When the pilot is more experienced and is allowed to attain fairly high altitudes he should be warned to dive a little before he released to gain more speed than the car and thereby avoid whipstalling. It is advisable to tie two or three pieces of white cloth on the tow line so that the driver can see if the pilot has released or not so that he may release if necessary.

GOOD NEWS FROM CANADA.

The President of the Aviation League of Canada, writing to The Sailplane, says that we shall be interested to know that there are now twenty-one Glider Clubs in Canada, and next February a Canadian Gliders' Association is to be formed. This is great news, and helps one to see that the Gliding Movement is forging ahead throughout the British Empire.

AN EARLY GLIDER.

Mr. Carlyon, of Glamorgan, had his interest in gliders aroused in 1907 but it was not until 1911 that he began to build his machine. It was not finished until 1914, which shows his pertinacity. He spent all his savings on the job which cost him about £35.

It was a biplane based on the Wright machines but unlike the Wright had the modern idea of a complete tail unit at the back. The wheels were detachable in flight. Pram wheels were used and these were held in place on the skids by wire forks which could be withdrawn by pulling a lever at the side of the pilot. The idea was to run down the hill side—and once in the air drop the wheels so that on landing the machine should stay put. The longest flight was one of 100 yards. The machine was wrecked by a storm in December, 1914, and never rebuilt.

The Span was 28 ft. The Chord and Gap were both 5 ft. The all-up weight is not available.



Gliding in 1914.—Mr. Carlyon at the controls of his glider.

CONSTRUCTIVE CRITICISM.

The leading article in THE SAILPLANE of Dec. 12 entitled "To Be Done, and Done Quickly," is, I think, most timely. The gliding movement has undoubtedly advanced by leaps and bounds, and it is due, of course, to the encouragement of *The British Gliding Association* and the Clubs that it has reached the pitch of enthusiasm that it has.

But, as was said in THE SAILPLANE, the time has come when a very definite advance must be made, and, if I may say so, I most thoroughly agree that the solution is a few central schools, and many more high-efficiency sailplanes.

It is quite evident from personal experience and perusal of the weekly "News from The Clubs" that the Zogling type of training machine has a very small scope indeed, and I think that once a pupil has had a few flips on it to accustom him to the use of the controls, he should be put on a machine in which it is possible to soar and should be taught to handle that particular make of machine until he is proficient.

The design of this sailplane should be thought out with great care to ensure a certain degree of initial stability in the air, and its fuselage should be so constructed that it will stand a reasonable amount of rough handling.

It has been said many times that a pupil could not possibly handle a high-efficiency sailplane, but the only reason I have seen given is that it has such a flat gliding angle that the pupil would never be able to land it. If this is the only trouble, it is not a very great one. Air-brakes have been used before now on power machines, and can be used on gliders. Larger gliding grounds also would seem to be indicated.

I think Clubs should concentrate on acquiring as many sailplanes as possible, not intermediates, which are neither one thing or the other, and keep the Zoglings for absolute beginners.

Personally I do not think I have advanced with the rapidity I should like on a Zogling, and am building a full sailplane to my own design, which I hope to get sufficient time to complete by Easter. I hope then to be able to persuade Herr Magersuppe or some equally competent pilot to teach me to handle this particular machine, and to get to know it thoroughly, and not be chopping and changing about between different types, or even between different machines of the same type.

This machine will not be of the extreme German type, but will have a span of 50 ft. and a loading of 2½ lbs. per sq. ft., with a reasonable amount of fixed tail-plane, and a fuselage that should stand a fair amount of rough usage. It will have detachable road wheels, with folding axles and struts, so that it can be wheeled back to the starting point with ease after each flight and towed behind a car with the wings stowed on edge alongside the fuselage.

I am making also a catapult which can be stretched by a winch by one person, and the machine released by the pilot from the seat, so that the whole outfit can be used without a launching crew.

I am simply describing these details in order to show what I consider to be the lines of development, and I am perfectly convinced that as long as we hop around on Zoglings we shall get nowhere, except to the bottom of the hill, more or less intact.

The article in the same issue of Dec. 12 signed C. H. L. W. is most helpful also, in that he speaks cold truth, backed by sound observation and experience.

I think if some of the nearby Clubs would amalgamate and pool their funds there might be some chance of seeing a few sailplanes really soaring.

They are all trying to teach a difficult art without competent instructors on machines that will not soar, so it is hardly to be wondered at that we are criticised by people in authority for wasting time by tobogganing down the local slopes.

The National School is the only solution, but it must be started now, or the Competitions this year will be a fiasco, and the whole movement will end in ridicule.

Cannot Mr. Lowe-Wylde, or Mr. Dagnall, give us a high-efficiency sailplane on the lines I have indicated above at a figure of, say, double the cost of a Zogling? I cannot see why it should cost much more, and I think there will be a ready market among people who, like myself, feel that they do not want to waste more time on primary machines.

There must be many such among the 3,000-odd members of clubs in England. It has been said that it takes the Germans six months to design a high-efficiency sailplane, but I don't think either of the above-mentioned gentlemen will need this length of time. I did mine in about a fortnight, and it is by no means a copy of any other.

If I may trespass upon your space at a later date I should like to describe a machine I have in mind built almost entirely of duralumin, and in which, in my opinion, would be easier for Club members to build than one of all wood construction.—GEALE DICKSON, A.M.I.N.A.

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CORRESPONDENCE.

Glad Tidings.

Sir,—You are no doubt aware that the Secretary to the Ministry of Transport has directed everybody's attention to the Motor Vehicles Regulations for 1931, which comes under the Road Traffic Act of 1930.

While the new regulations contain many important new requirements in the interest of public safety it gives us, in the Gliding Movement, much pleasure to know that the proposed regulation regarding the employment of attendants for trailers has been waived, an exemption being made from the normal requirements laid down in section 17 of the Act, "Where a trailer with not more than two wheels is drawn by motorcar or motorcycle."

The Association is very grateful to the Ministry of Transport, the S.M.M.T., the S.B.A.C., and Mr. Rice for the co-operation which has been given by all concerned, and we are also taking the opportunity of thanking you, Sir, for giving publicity to a matter of such vital interest.

(Signed) J. L. R. Waplington
(*Secretary, British Gliding Association*).

Pro Catapulta.

Sir,—Although I am but an *ab initio* pupil with the experience of one Club only, i.e., the Surrey Gliding Club and the R.F.D. Glider, may I criticise various writers in your issue Jan. 16 on the subject of Auto-Towing.

I have still to come across "the heart-burning as to who should pull and who to have the pleasure of gliding." Our Instructor, Capt. Stratton, arranges with the Secretary the order of the flights and we are all happy and content.

As for smashes due to the catapult method, we have had none for that reason. I put this down to the credit of our Instructor, who decides how many should pull on the catapult, and he gives the order for "release" according to the capacity of the pupil. For instance, my last time but one I made a very bad landing (no damage), but he reduced the risks the next time by giving the order for "release" a little sooner and I made a nice flight and landing.

As for the alleged "blacking out" with the catapult method. I expected it but have never noticed it. The following appears to be the explanation: a stationary object requires greater force to start it moving than to keep it going when once under way. The elastic cable therefore exactly complies with our requirements, for it gives the machine a slow start and a steady carry on.

For a flat country with no hills, auto-towing is of course the only method. It may also be developed for other reasons. However, from my limited experience of gliding the method of propulsion does not matter so much as getting hold of a good Instructor with tact and experience.

(Signed) H. V. Roe.

[*With Mr. Roe's last sentence we find ourselves in complete agreement. Surely the Surrey Club has had crashes; at least one might have been avoided had the victim been towed around a flat field and never been allowed to find himself in space over a haystack.*—Ed.]

The Dagnall Prize.

Sir,—As one who has been following with interest the scores for the Dagnall Prize I am quite at a loss to understand the scoring for this prize as advertised in your issue of the 23rd inst. According to the list you have published elsewhere in the same issue the scoring should be: London 19, Surrey 15, Dorset 12.

Perhaps the Clubs concerned would verify these figures?

(Signed) Nomad.

A Club for "C" Pilots.

Sir,—In reply to Mr. Shutte's letter dated Jan. 9, may I point out that the Harlington group of the London Gliding Club are by way of being the beginning of just such a Club as your correspondent describes, but, in view of the present state of everybody's gliding experience, the sole conditions imposed on anyone wishing to join the Group are: first that they must be members of the London Gliding Club; second that they must be far enough advanced to be either holders of "A" certificates or at a stage when they would be about to take their "A" certificates.

The only machine at present available is a Prufling, but it is hoped that one or two additional high-efficiency machines may be brought into this Group at an early date.

At present there is no entrance fee or subscription apart from the Club entrance fee and subscription, but each member of the Group is under obligation to defray the cost of any accidental damage caused to the machine while in flight, each individual being responsible for damage caused by himself.

This Group has been in existence now for five or six months, and, to date, the only accidental damage which has had to be paid for, amounts to 18s. It should be clearly understood, however, that the Group have actually incurred other expenses apart from this 18s. in connection with the provision of launching gear, and additions to the machine, such as undercarriage, etc.

Anyone interested in this Group and desiring further information should apply to the undersigned.

(Signed) T. E. Lander.

[We think it only fair to point out that although the objects of Mr. Lander's Group are most laudable, all the soaring flights of any eminence have been achieved by the non-sectarian portion of the London Club.—Ed.]

A Welsh View of Auto-Towing.

Sir,—I was very interested in Mr. Lowe-Wylde's article in The Sailplane on Auto-Towing, but there are one or two matters to which I would like to refer. First I think in Auto-Towing we are getting away from the whole idea of Gliding; the next step will be small engines and a repetition of the aftermath of Itford in 1922. If we are going to use power surely it is better to fit the engine in the machine where the pilot can control it himself rather than have it on the end of a wire.

Readers who were at the Inaugural Meeting of the B.G.A. last March will remember how Mr. Handley Page, in thanking the late Sir Sefton Brancker for his promise that the Air Ministry did not intend to impose the Airworthiness Regulations on gliders, said "he had been reading the Air Navigations Acts and he could find no reference to gliders; he only found kites, balloons and power airplanes, so it appeared that the Air Ministry had no power to impose regulations."

Now if we indulge in Motor-Towing or Auto-Launching or whatever we like to call it, we will find that the glider becomes a kite and will therefore have to conform with Air Ministry Regulations, let us be careful we do not, again to quote Mr. H. P., find the "Air Ministry policeman sitting on our tails."

With regard to C. G. G.'s notes, the "blacking-out" experienced at the start with shock-cord launching is something one can get used to, but I am very much afraid that the Blacking Out that will be experienced if the auto-launch is persisted with will not be something that the unfortunate victim will be able to get used to. The argument that in the Midlands they have no hills is not one that carries us far as without hills one cannot glide. Let us go slow. Herr Kronfeld has all along impressed on us the importance of caution. One sticky finish will do more harm to Gliding than all the propaganda of the B.G.A. and the Clubs can put right in a year. Wishing The Sailplane the best of luck.

(Signed) C. L. Wills.

A Film Library.

Sir,—May I suggest that we all get together and pool our cinematograph films. I believe that Cononley, Scarborough, Furness, Glasgow, North Cotswold, Dorset, London and other Clubs have got cinematograph films. I fully appreciate that these Clubs will value greatly these records of their progress, but at the same time after their members have seen them two or three times the films would be of still greater value to the Movement, as a whole, if they were available for circulation.

Another advantage would be that a real evening's entertainment could be made up by a number of films, whereas one or two films are insufficient. The B.G.A. has no doubt got plenty else to do and I am perfectly willing to act as Librarian if this scheme can be got going. I suggest that Clubs willing to participate in this scheme would send me their films after they had used them themselves. I would then organise the matter so that application by Clubs could be made for a programme of films to meet various types of projectors.

Will any of the readers anxious to go ahead with this idea please communicate with me direct or through the columns of your paper so that we may all know what is happening?

(Signed) J. Cecil Rice
(32, *Burnside Crescent, Skipton*).

Mr. Scarby Hits Home.

Sir,—You have used entirely the wrong word in your remarks re my Gliding School, it should read "Telescopic Institution," as it shall know no limits in endeavouring to make it a success.

I know an Editor of a very Philanthropic kind who sells weekly journals at three and ninepence a dozen even though he has just revised his price, when at the same time he admits they cost him sixpence-halfpenny to produce

For your publication, and with best wishes.

(Signed) H. A. Scarby.

"THE SAILPLANE" IS PUBLISHED EVERY FRIDAY. ANNUAL SUBSCRIPTION 15/- ORDER FROM 175, PICCADILLY, W.1.

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.

—The London Gliding Club. Meeting place, Turveys Farm, near Totternhoe, on Saturdays and Sundays.

Dorset.—The Dorset Gliding Club, Westland Aerodrome, Yeovil.

Edinburgh.—The Edinburgh Gliding Club. Sundays, at West Craigs Farm, between Corstorphine and Turnhouse Aerodrome.

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. Whiteley Bank, near Godshill. Every Sunday from 11 a.m.

Kent.—Channel Gliding Club. Adjoining Hawkinge R.A.F. Aerodrome, 2 miles from Folkestone, on main Canterbury road. Every Wednesday and Saturday afternoon and all Sunday.

—North Kent Gliding Club. Saturdays 1 p.m., Sundays 10 a.m. Joyce Green Aerodrome, near Dartford.

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

—The Isle of Thanet Gliding Club. Saturdays and Sundays from 2 p.m. Manston Aerodrome, Thanet.

Lanark.—The Glasgow Gliding Club. Barrance Farm, Easter Whitecraigs, near Glasgow. Every Sunday from 11.15 a.m.

Lancs.—The Furness Gliding Club, at Gleaston Park Farm, Gleaston, near Ulverston (midway between Gleaston and the Coast road). Sundays 10.30 a.m., by arrangement and weather permitting.

—The Stockport Gliding Club. Every Sunday afternoon at Woodford Aerodrome, Manchester.

—The Preston and District Glider Club. Week-ends at Butler's Farm, Beacon Fell, 2 miles from Inglewhite and 7 miles from Preston.

Notts.—The Nottingham Gliding Club, Mr. Ellis's Farm, Kneeton Road, East Bridgford, Notts. Every Sunday, weather permitting.

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.

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

—The Worthing and District Gliding Club. Wednesdays, Saturdays, and Sundays, at High Titton, second 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. Saturday 1.30 p.m., Sunday 9 a.m.

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

—The Leeds Gliding Club. Week-ends at Warfedale with the Harrogate Club.

—The Scarborough Gliding Club. Every week-end at Flixton.

[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.—Ed.]

THE ACCRINGTON AND DISTRICT GLIDING CLUB.

The Accrington and District Gliding Club has taken a few acres at Mr. J. W. Tomblesen's Lower Witham Farm, Accrington, where their glider, a Hanseat, is also garaged. As Jan. 25 was very windy, about 25-30 miles per hour, it was decided to practise the use of controls. Instruction was given by Mr. Sharples, the President of the Club, and Mr. J. W. Sansom, Rigger. Each member had a try at keeping the machine balanced. It is intended to hold meetings every Sunday, Wednesday and Saturday, weather permitting.

THE BRADFORD GLIDING CLUB.

A very successful flying meeting was held at Weston, near Harrogate, on Jan. 25. In spite of a 40 m.p.h. wind, Bradford's Chief Marshal of the day, Mr. A. M. Verity, decided to rig the Club's Dickson machine and this was done with the kind assistance of members of the Leeds Gliding Club. At lunch time one of them obligingly remained in the seat of the machine to hold it down while the Bradford men had their meal. On their return he assured them that the wind had several times lifted the machine bodily to the height of a foot of the ground.

The machine was then hauled to the top of a 50 ft. slope, from which a number of very fine flights were made, the longest being three seconds short of a minute. These were quite definitely soaring flights. Immediately on launching the machine shot upwards to a height of 150 ft., hovered for a few seconds, and then slowly moved forward until it got out of the strong up-current over the crest of the slope, when it descended swiftly and not too comfortably to earth.

Although the proceedings were terminated at about 3.30 p.m. by a slight damage, which will be repaired by next week-end, the meeting was certainly the most interesting and instructive that the Club has yet held. It was, of course, only possible for a few of the more advanced members to fly the machine under the prevailing conditions, but they have gained very valuable experience in controlling the machine, and were all impressed by the manner in which the Dickson machine handled in the high wind. It proved very steady and quick to respond to all controls except the rudder, which was rather sluggish and ineffective, as appears to be the case with all Zogling types.—M. M. S.

THE MERTHYR AND DISTRICT GLIDING CLUB.

Although no account of the activities of the Club has appeared in THE SAILPLANE for some time it has not been because we have been idle, rather we have been too busy to send off the reports. We are now in excellent form and have a new ground, a posh trailer, an R.F.D. machine in tip-top trim and a Dickson nearly complete. Every Sunday when the weather has permitted training has gone on and most of the members are rapidly improving.

On New Year's Eve the first Annual Dinner was held at The Peter Pan Café and a most enjoyable time was spent; we hear some of the members got home just in time for the first post.

A film show of the film taken at Ditchling by Mr. Rice was shown one evening and was greatly appreciated. A Lecture, accompanied by lantern slides lent by the B.G.A., was given by the Sec. We hope to have the Wasserkuppe film from the B.G.A. next month.

On Wednesday, Jan. 14, the Annual General Meeting was held at the Y.M.C.A. and the following officers were elected: President, Mr. Griffith Llewellyn; Vice-President, Mr. J. T. Willows; Chairman, Mr. W. Watkins; Hon. Sec., Mr. J. F. Price; Hon. Treasurer, Mr. E. Warrilow; Captain, Mr. C. L. Wills. We are now "all ship-shape and Bristol fashion" for a successful season.—C. L. W.

THE NORTH COTSWOLD GLIDING CLUB.

On Jan. 18, when many people had concluded that the weather conditions were too boisterous for gliding operations at the North Cotswold Gliding Club's site at Broadway, a good muster of the bolder spirits had got to work with a view to pitting their skill against the elements. Several members have been ready to try for their certificates for some time, but as Mr. Horace Wright, the Club instructor, is not in favour of his pupils taking "butterfly tickets," the conditions were favourable for an attempt to put the "wind-fighters" to the test.

Mr. W. Jacques, by virtue of being an early attendant, went "into the blue" for the first attempt, which, however, failed by a narrow margin. At the second shot, and by a slight variation of tactics, Mr. Jacques passed the test with a couple of seconds in hand. Then Miss Marion Cocks-Johnston went up in a rocketting shot, which certainly broke the motorless height record for the Cotswolds if it failed in its original purpose. The object of her next shot by way of experiment was to gain speed and distance rather than height. Then following this with a well-judged glide which struck a line embodying the advantages of the two practice efforts, Miss Cocks-Johnston maintained the machine in the air for the 30 seconds necessary to qualify for her "Ticket."

Miss Evelyn Moore was then launched for a couple of flights, both of which came very near to the required time. Then, in a masterly effort which clearly demonstrated the use of the knowledge of the conditions found on the two previous "refresher" shots, Miss Moore passed for her certificate, thus putting the North Cotswold Club into the enviable position of having the only team of qualified lady pilots in this country. The flying skill shown by all these candidates is considerd by Mr. Wright to be of the best possible order, as under such difficult conditions "none but the most skilled and well-practised pilots could have managed the gliding machine."

Mr. Ernest Noble, as usual, tempering the handicap of heavy weight with light humour, then essayed the task, and almost did the trick, falling short by only a few seconds, after which, owing to the rapidly gathering darkness, operations had to be ceased for the day.

The Wednesday and Saturday (2 p.m.), and also the all-day Sunday operations, will now be resumed, and those members now nearing the qualifying stage, should endeavour to take advantage of the favourable conditions expected at this time of the year.

On Jan. 18 the North Cotswold Gliding Club entertained the members of the nearest neighbouring Gliding Club, the Warwickshire Club, the headquarters of which are in the vicinity of Stratford-on-Avon. Unfortunately this new Club is unable to find suitable terrain for gliding operations, beyond the very elementary or primary stage, in their home district, and the members therefore welcomed the opportunity to bring their gliding machine to the Broadway gliding ground, where the conditions lend themselves to all stages of the work.

Conditions were suitable for the visitors to make their debut with a few shots upon one of the nursery slopes. The fact that the technique of gliding can only be acquired by long practice and close study was forcibly demonstrated by the comparatively longer flights made under corresponding conditions by the members of the North Cotswold Club, notwithstanding that their machine is now a veteran.

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THE NORTH KENT GLIDING CLUB.

Bad fortune has dogged our footsteps lately. We have managed to achieve a minor crash on each of the last four or five Sundays. About fifteen or so enthusiasts turned up at our Joyce Green training ground on Jan. 25, in spite of the fact that the wind was blowing in about 39 m.p.h. gusts.

One of our instructors decided to test conditions. He was shot off, immediately rose to 20 or 30 feet and found trouble. The machine was blown sideways and backwards, entirely out of control, hovered over a ditch and two cars, and crashed. At the General Meeting recently it was decided to levy a toll on members of sixpence per two flights. The first member to arrive at the scene of the crash (we believe it was the Hon. Treasurer) asked the pilot for his sixpence!

In spite of these misfortunes, however, the Club is making excellent progress. Several members will soon be ready to take their "A."

As we are at present operating on flat ground, we propose to try out the high launching apparatus as described in The Sailplane of Jan. 2. We should be interested to hear if any other Club has tried a similar experiment.

The Entertainment Committee is to be congratulated upon the excellent organization of the first Club dance held on Saturday, Jan. 24.—C. M. W. J.

THE SCARBOROUGH GLIDING CLUB.

The First Annual General Meeting of this Club was held on Jan. 14, at the Club's Headquarters, The Royal Hotel, Mr. Howard in the Chair. Members and Associate Members attended to the tune of about 50, and the greatest interest was shown, a number of important questions being discussed at some length. Mr. F. L. Tomlinson, Treasurer, read the Balance-sheet, which, after speeches by various members, was ultimately adopted. The election of the new committee then took place, Messrs. Thompson, Robinson, Tomlinson, Lobb, Slingsby, Kelly (A.), Howard, Ezard, Turner, and Dr. Watson being successful in the ballot. The Chairman, Mr. S. C. Howard, was again appointed for the ensuing year.

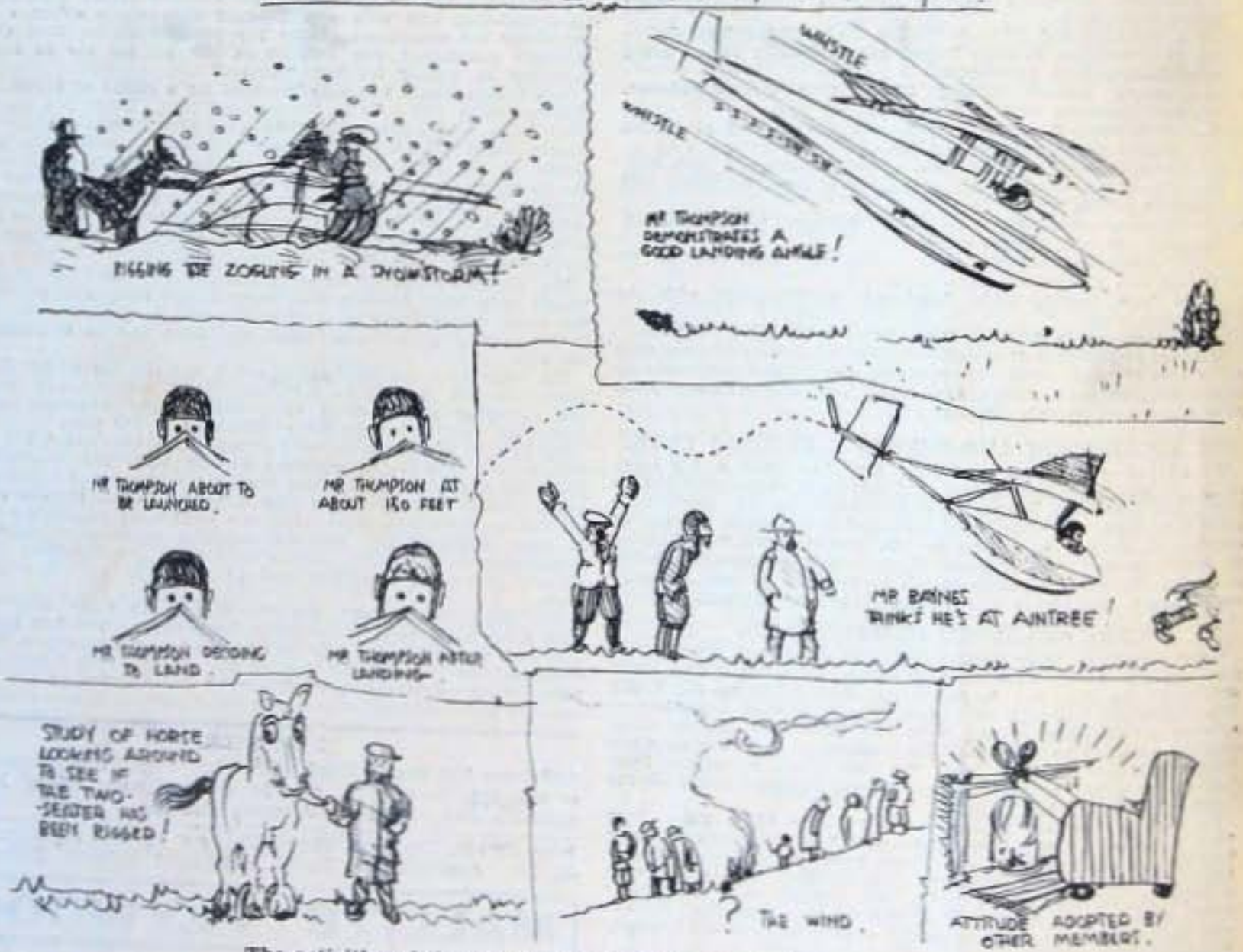
In a short address, Mr. Howard commented upon the various difficulties which the Club had been called upon to face since its commencement in May of last year, but stated that the Club had made a very successful show considering the purchasing expenses, etc., and the absence of donations which had been expected from certain sources. He warmly thanked the Committee and Mr. Baynes, Demonstrations Manager; Miss Cox, Hon. Secretary; and all others who had put in so much work for the good of the Club, and urged members to lend their support to them in the future as it was essential that the Committee should have some backing.

One of the most important matters under discussion was that of the continuance of Herr Magersuppe's appointment as Instructor to the Club. Several members spoke on this subject, which was an urgent one in view of the fact that the existing arrangement with Herr Magersuppe was due to expire. Finally it was agreed that the Club should not renew the appointment at the present time, as in view of the average weather conditions, demonstrations could not be run with any degree of certainty, and this might adversely affect the Club's finances. A suggestion was put forward that all other Clubs might be approached in order to ascertain if they would care to have Herr Magersuppe for special instruction for short periods, but this was subject to the consent of Herr Magersuppe, who was not present.

Speaking at a later stage, Mr. Howard (Chairman) expressed himself as idealistic over the Club's future, that the Club was the leading Club in the North of England and probably the second in the country. It was capable of an enormous future, including the formation of a "Junior" branch. Flixton could be made a permanent Headquarters with Club House where members could gather together, including lady members.

Further business included the questions of raising revenue from various sources to carry on the work of the Club, and the election of an Hon. Secretary in succession to Miss Cox. The usual modesty was evident, but finally Mr. Batty stepped into the breach. It was left to the Chairman to express the thanks of the Club to Herr Magersuppe for his services during the period of his Instructorship.

During the last week-end, wind direction has been all wrong for flying. Several optimists went out in separate parties, but there was nothing doing. One party is reported to have put in an appearance at Flixton, decided as above, and then to have set out on foot for the coast line, arriving some hours later into Scarborough by way of the South Sands. As this must be some 12 miles it all goes to show of what a regular Glider (or Launcher) is capable. Personally, the writer of this note was more fortunate, in that, thanks to the forethought of certain members, approximately the same route was followed in a Bentley, and a picnic tea-party was held en route.—E. C. T.



The activities of the Scarborough Club as seen by their own artist.

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