SAILPLANE

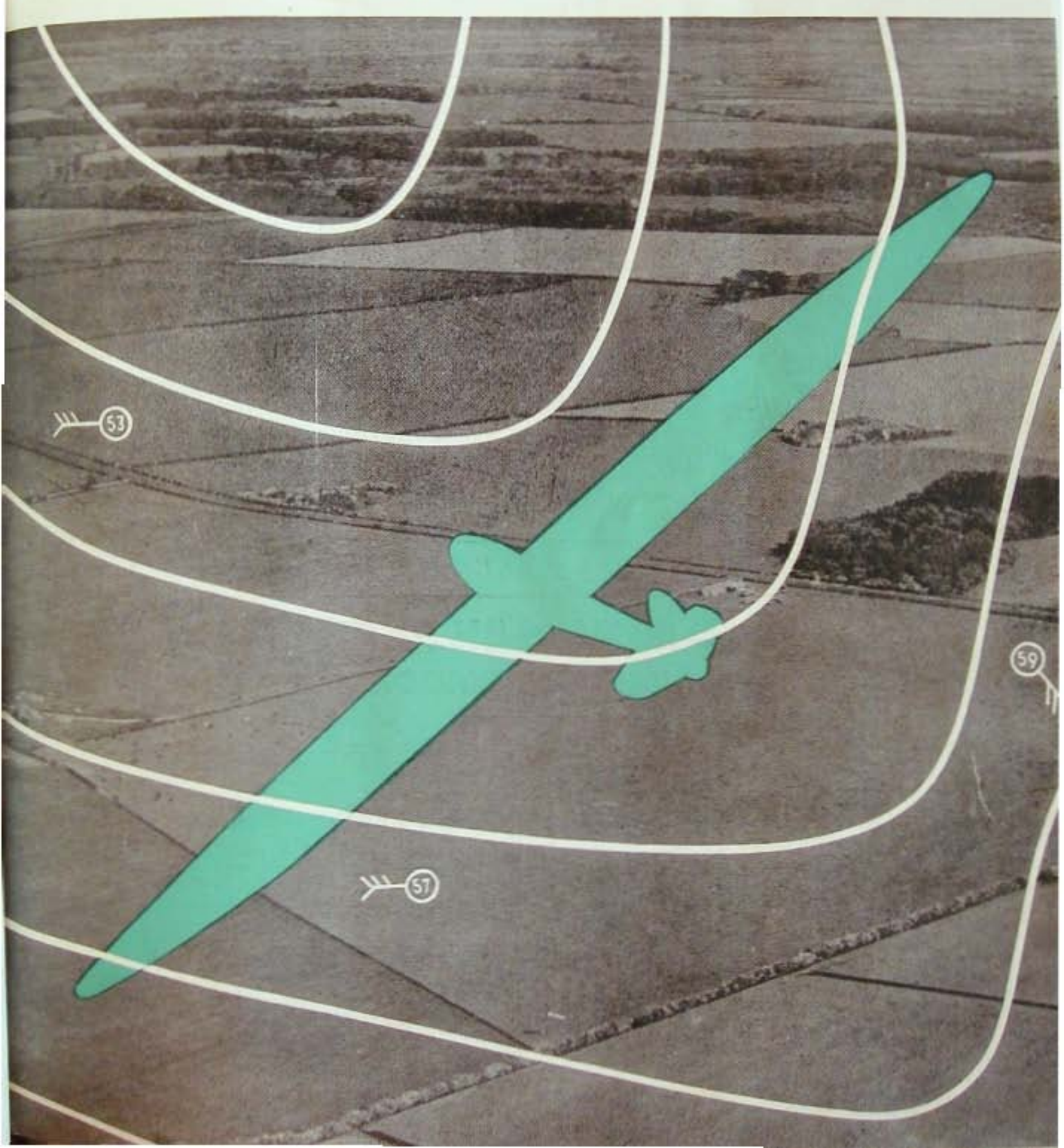
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EDITED BY ALAN E. SLATER



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THE SAILPLANE *and* GLIDER

Official Organ of The British Gliding Association

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Thermal Flights from the Winch

THIS phrase, or its shorter but less accurate form, "Thermals off the Winch," occurs so many times in this issue of THE SAILPLANE, either as title to an article or as a sub-heading in the Club News section, that many readers will feel forced to sit up and take notice. In four or five different gliding centres during the past few weeks, pilots have been pulled up to only a few hundred feet on a winch cable and have proceeded to get away from the site on thermal currents without any help from a wind blowing up the hill—if any. In fact, one club, that of Cambridge University, has actually claimed subsidy on the ground that it has a soaring site, and has justified the claim, in the complete absence of a hill to soar over.

At this club's ground, on April 25th, one pilot climbed rapidly to 3,000 feet in a throttled-back "Drone" light aeroplane, and a week later, on May 2nd, a cross-country sailplane flight was made by means of a thermal picked up after a winch launch. By similar means an even longer flight was made on May 24th.

At the Midland Club's ground in Shropshire, on May 2nd, a pilot went three or four miles up-wind after a winch launch and came back again, and on May 9th the same pilot climbed to 1,300 feet. At the London Club's ground, on April 25th, half a dozen people made climbs off winch launches and two went off across country.

A special kind of thermal lift in the evening has been found by the Derbyshire and Lancashire Club, and on May 30th a pilot of the Midland Gliding Club found it too. But it is the ordinary day-time thermals to which we think particular attention should be directed.

The matter is becoming important. It has always been a reproach to gliding clubs that their pilots can only keep up when the wind is blowing with at least a moderate force and in a particular direction. The last few weeks have shown that it is worth while for soaring members to turn up almost any day, irrespective of the wind, in the hope of getting some flying. There is, in fact, a possibility that the scope of the average well-equipped gliding club might be enormously extended in time to come. The question is, should this desirable state of affairs be allowed to come into existence slowly and casually, as if by accident; or should some organised effort be made to hasten its coming?

If things are allowed to drift, gliding clubs, presuming they continue to exist, will gradually, in the course of dozens of years, accumulate a local lore of knowledge about their thermal up-currents. It will be like the weather lore of seamen, or of rustic workers—unsystematised, but gathered slowly from the combined experience of generations of forbears.

On the other hand, cannot something be done on scientific lines to hasten the accumulation of knowledge of their local "thermal" conditions by gliding clubs?

Look at this month's news. The Cambridge and London Gliding Club sites are only thirty miles apart. On April 25th both clubs found good thermal conditions. But on May 2nd, when a Cambridge member made a cross-country flight from the winch, and, incidentally, so did a Midland pilot, experts at the London Club could get no height out of thermals at all, although the wind and sky conditions were apparently just the same as the week before, when they did so well.

There seems good reason to believe that, the previous week, a succession of thermals was rising off the spur at the north end of Dunstable Downs; they probably passed over the winch at just the right height to be caught by a newly-launched sailplane, and had climbed to something over 1,000 feet on reaching the "power cable slope," where at least two pilots made good use of them at that height. But next week they weren't there. Quite likely, they were somewhere else, not far off, and if so, the winch might have been moved to catch them. Who knows? Nobody.

At present, every club in this country which winches up its members in the hope of catching thermals seems to do so on the "hit or miss" principle. If clubs really aspire to give their members the best soaring facilities, even in the absence of "slope winds," something more will have to be attempted. Winch launches are usually done at intervals of 10 minutes or so. Thermals have been known to rise from one spot at precisely similar intervals. Why not make the two "click"? It should not be beyond human ingenuity to devise means of telling when and where a thermal is going up. There is the well-known phenomenon of deflection of the wind towards the thermal. And why not fly a kite up-wind of the launching point? Why not do lots of things?

Activities in Egypt

FLIGHT-LIEUT. E. L. MOLE, who will be remembered for his past activities in British gliding, and especially as having more than once held the British duration record, writes as follows from Aboukir, Egypt :—

I have read your remarks in a recent issue of THE SAILPLANE about the possibility of thermal soaring in Egypt, and I thought you might be interested to know what gliding experiments have already been made here.

There is a very active gliding school run under the auspices of the Egyptian Aero Club for the benefit of Egyptian students. There are about 100 pupils, who seem amazingly keen and appear to learn quickly. Although the school has only been run for a year or so, a large number of the pupils have reached the "B" stage.

The school operates in the desert outside the boundaries of Almaza (Cairo) aerodrome, using the usual shock-cord launching for the ZÖGLING types and a winch with 800 metres of cable for the secondaries and sailplanes. There are two ZÖGLINGS, two secondaries (they look like nacelled ZÖGLINGS), an Italian-built PROFESSOR, and the FASOLD (Kronfeld's old two-seater). The most recent addition is a WOLF (GÖPPINGEN I.), which is described as suitable for light thermal soaring, and is stressed for air towing and aerobatics.

Owing to the complete lack of hills at the gliding school, no *ab initio* "C's" have yet been gained, although a number of the pupils have reached the stage where they fly accurately and well enough to make "C" flights, given the necessary hill slopes. Count L. E. de Almásy, a Hungarian war "ace" and "C" pilot, is the chief instructor of the school (and also chairman, secretary, engineer, and everything else !). He has ambitious ideas about obtaining "C" certificates by thermal soaring from the winch, which is possible for an experienced sailplane pilot, but in my opinion hardly feasible for a pupil.

However, Count Almásy, who is incidentally a well-known explorer of the Lybian desert, has selected a ridge of sandhills some 300 feet high facing the prevailing wind, and a hangar is being built on this site. Although about 20 miles out in the desert, I imagine this will provide the means for a number of pupils to qualify for their "C" certificates.

I first connected with the school about three months ago, and at once suggested aero-towing to reach the thermals. Count Almásy informed me that he had already thought of this, but that the Egyptian Air Ministry refused permission as naturally they knew nothing about air towing regulations. I had had considerable experience of aero-towing way back in 1931 at home, using a B.A.C. VII., in which I did about 25 hours' towing, including a tow, two up, from London to Blackpool.

We suggested to the Royal Air Force H.Q. in Cairo that there should be a gliding event in our local R.A.F. Display, and that one glider should be aero-towed to 2,000 feet and make an aerobatic descent. This was agreed to, and I was authorised to modify an Avro "Tutor" for towing purposes, and to make a number of practice towing flights in the WOLF.

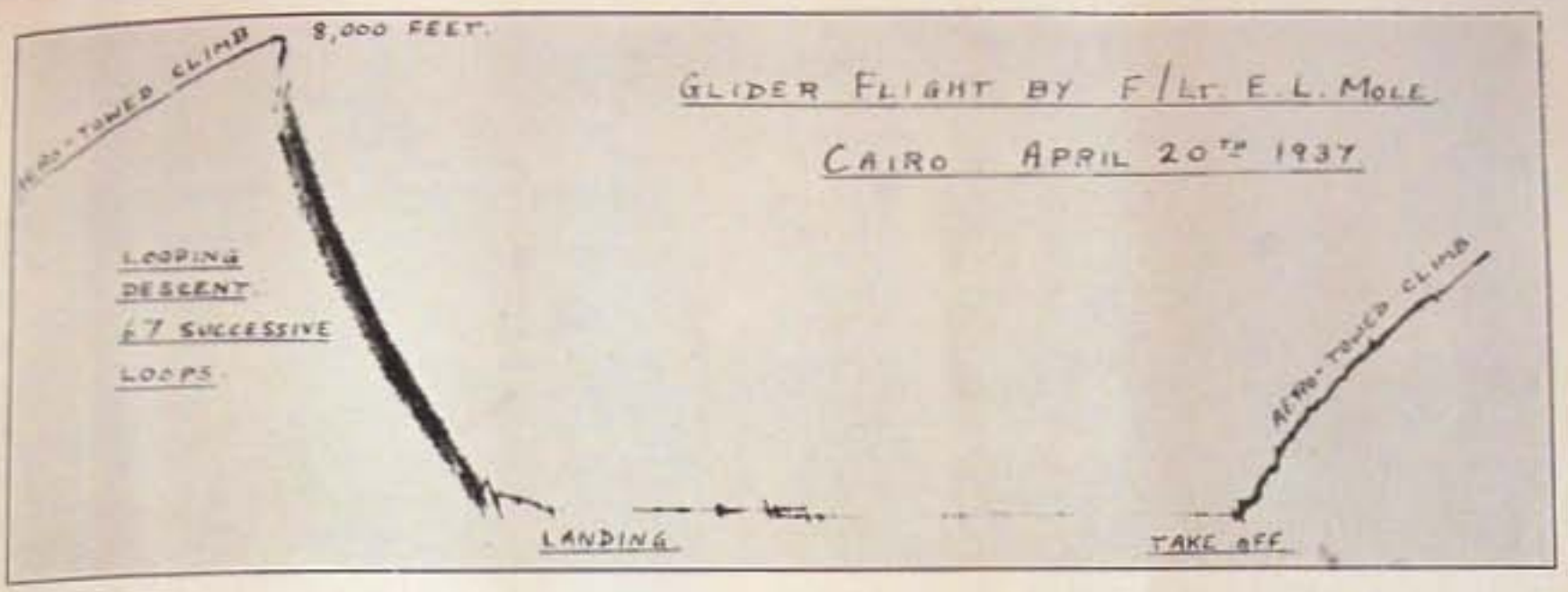
The "Tutor" proved ideal for the job, it being necessary only to fit an extension to the lower end of the stern tube, to which was clipped an R.A.F. bomb release operated by Bowden control from the cockpit. We used 500 feet of 5-cwt. cable, with a weak link of 500 lbs. breaking load. A number of different pilots did the towing, and all agreed that, except for a slightly longer take-off, it was impossible to notice any difference in the "Tutor's" behaviour, and they could not even tell when the glider released.

We made about half a dozen practice flights; I had naturally to practise aerobatics for the Display event, and found the WOLF delightful for these, whilst Count Almásy explored the thermals which abound in the desert. He made a spectacular flight from Cairo to the pyramids one day, which has already been noted in THE SAILPLANE.

The R.A.F. Display event took place according to schedule, and was very well received by the crowd who had not seen gliding before. [An extract from the *Egyptian Mail* is enclosed, which describes how the pilot carried out a series of loops, stalled turns, inverted gliding and a spin, and "finished with one of the most beautifully-timed landings we had been privileged to see, when the pilot, before landing, brought the delicate machine smoothly along the whole length of our enclosure a few feet above our heads with both hands lazily waving to us over the sides of the cockpit."—ED.] Although I realise that aerobatics are not



Above: Mr. E. L. Mole photographed in the "Wolf" sailplane just after doing 67 loops. Next to him are: Mohammed Taher Pasha (President of Royal Aero Club of Egypt), Count Almasy, and Flight-Lieut. Lewis (official observers). Below: the "Wolf" taking off aero-towed at Heliopolis, Cairo.



Sixty-seven loops are recorded on this barograph record of Mr. Mole's descent after an aero-tow to 8,000 feet. The paper was wrapped round a cylinder, so the record starts in the middle, goes off on the right, and reappears on the left.

true gliding, yet what else could I do with but 7½ minutes allowed for my flight?

The last towed flight authorised by the R.A.F. was to return the WOLF to its home ground at Almaza. I therefore asked the pilot to tow me to 8,000 feet (the limit of my Short & Mason barograph), and I carried out a continuous looping descent, making 67 loops in all. Although this was really a joke, I would be interested to know if anyone else has done more successive loops in a glider. [This question will be answered next month.—ED.]

We no longer have the use of the "Tutor" for towing us, but anticipate that the Air Ministry may now permit this to be done by a civilian aircraft. If so, we hope to make a systematic thermal survey of the country, especially down the Nile valley. There are thermals abounding here every day; I have seen pieces of paper carried up to over 500 feet. Hawks are continually soaring, and their presence gives a good indication of thermal areas.

There are, however, great snags to cross-country flights here, the chief being the complete absence of roads suitable for a car and trailer to rescue the glider; also the lack of telephone communication. Again, should the unfortunate glider pilot land in the desert, the chances are he would never be found again. It took the R.A.F. three days' searching to find a lost car last year, and it was only 10 miles from the Nile. However, with careful organisation and the use of an aircraft to spot the glider's landing, and to tow it back again, cross-country flights may soon be done. Anyway, I hope to try these soon, and will let you know the results, if successful.

I have now been abroad for nearly two years, but have kept in touch with the home gliding news by means of THE SAILPLANE. I hope to get home on leave soon, and to visit Dunstable and see these new hangars and clubhouse I've read about; also to meet my many friends in the gliding world again, whose enthusiasm I so well remember.

In conclusion, I would like to wish the British team for the Wasserkuppe the very best of luck. They've got a first-rate sailplane, and should do well. I'll follow the reports of that meeting with interest.

E. L. MOLE.

An Inter-Club Match

It is seven years since a match between two gliding clubs was last staged. Now it has happened again, and this time the participants were the Midland Gliding Club and the Derbyshire and Lancashire Gliding Club, the former being the visiting team.

It was to have been a soaring contest. When Whit Monday arrived, however, the wind refused to blow, so a spot-landing competition was instituted instead. Each competitor had three flights, and their distances from the spot in yards were:

Derbyshire and Lancashire team: Leech, 15, 66, 22; Kaye, 96, 11, 56; L. R. Robertson, 27, 12, 14½; Booth, 39, 18, 7.

Midland Team: Reilly, 25, 16, 6; Everall, 21, 34, 36; Stanford, 8½, 11, 21; Rushton, 34, 9, 2½.

In the final, Booth got within 3⅝ yards, and Rushton 3½ yards, so Midland won the prize—a stainless steel beer tray, engraved with the respective club crests, suitably inscribed.



The two teams and their trophy at the inter-club match on Whit Monday. Left to right: Everall, Stanford, Riley, Kaye, Robertson, Swale, Booth; seated: Rushton, Leech. We hope to be present also at the return match in August.

Dart Aircraft Products

IN Dunstable Town, within a mile and a half of the London Gliding Club's headquarters, is the Dart Aircraft Factory. When the west wind blows the firm's products may be seen in soaring flight by anyone looking out of the firm's windows—or could be, if the firm's staff were not too busy to look.

But there is always plenty to do, for the range of activities is wide, embracing not only gliders and sailplanes, but light and ultra-light aeroplanes, and such interesting jobs as making replicas of historic nineteenth-century gliders for a film company, or reconditioning ancient "Bleriot" monoplanes.

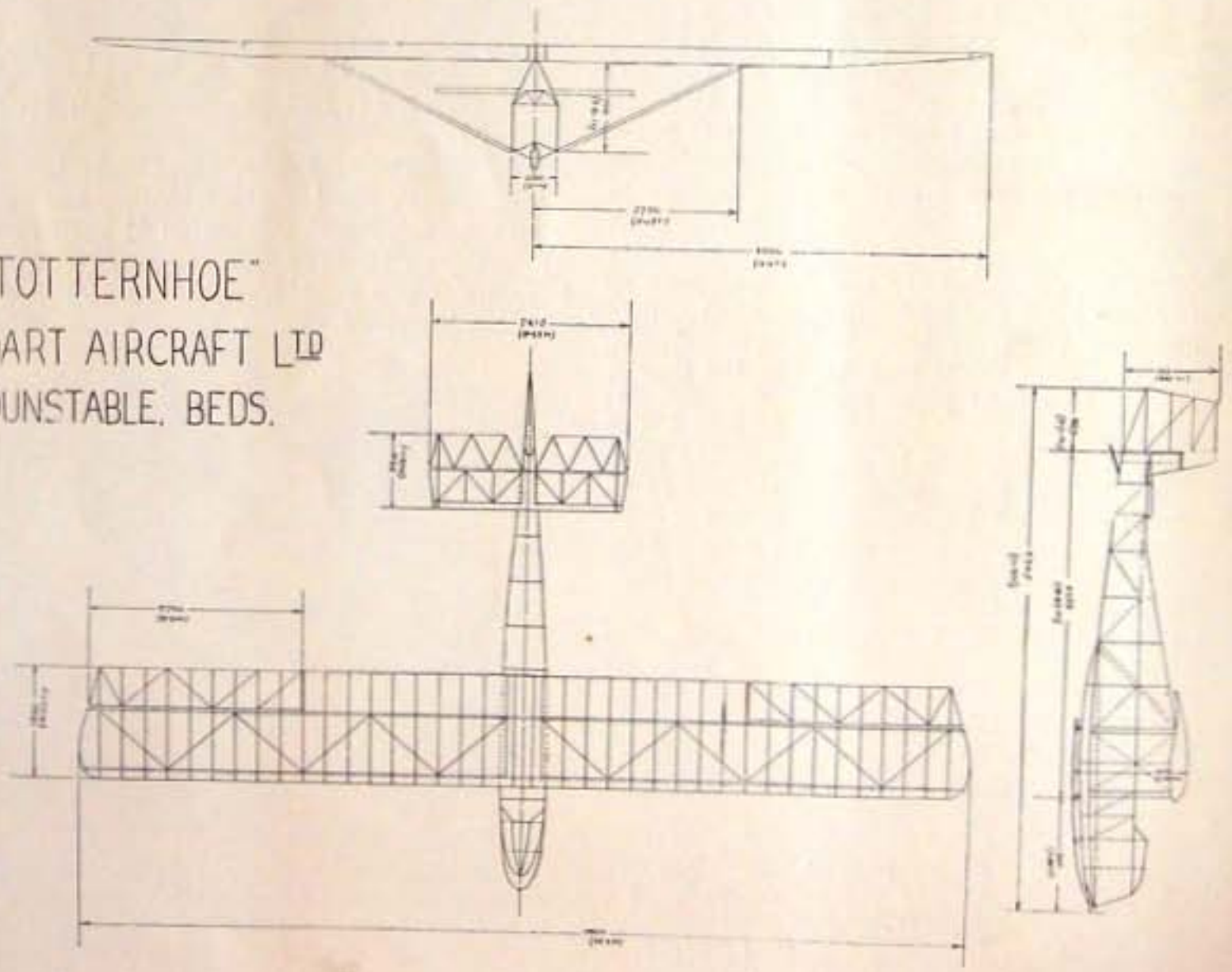
Three years ago the firm started its existence under the name of Zander and Weyl, taking a small shed in a backyard. Soon other sheds had to be added, and before long the business had grown to such proportions that the whole row of houses was annexed and knocked into one, and this forms the firm's present premises.

Gliders and sailplanes of any design are turned out, from the ZÖGLING primary for the Cambridge University Gliding Club to the beautifully made GRUNAU BABY for Mr. G. B. Baker, which has now been taken over by the London Gliding Club. But the firm also produces two well-known designs of its own—the TOTTERNHOE secondary training machine and the CAMBRIDGE sailplane.



A "Totternhoe" soaring at Dunstable.

The TOTTERNHOE, shown in the accompanying general arrangement drawing and photograph, is a favourite with soaring pupils, being easy to fly, and specially liked in that it shows no tendency to spin when inadvertently stalled. One is in constant use by the London Gliding Club, another (fitted with quick-release for winch launching) by the Cambridge Club, while yet another has been built to the order of a private owner, Mr. Seth Smith.



The span of the TOTTERNHOE is 38.8 ft., length 21.5 ft., area 192 sq. ft., and weight (empty) 260 lbs.

The CAMBRIDGE sailplane is built somewhat on the lines of a GRUNAU BABY, but with a well streamlined fuselage of oval section, enclosed cockpit, increased strength, and other improvements. The first to be built is owned by members of the Cambridge club, and the second, the CAMBRIDGE II., embodying certain improvements on the CAMBRIDGE I., is owned by that redoubtable pair, Mr. E. J. Furlong and Captain R. S. Rattray.

These two pilots swear by their CAMBRIDGE. It has seen one of them through a blizzard, and the other through a thunderstorm, and has done a great deal of thermal soaring and some cross-country flying.

General arrangement drawings of the CAMBRIDGE II. were given in our issue of March, 1936, on page 39. Its span is 46 ft. 4 ins., length 21 ft. 4 ins., area 160 sq. ft., weight (empty) 245 lbs., and wing loading 2.81 lbs. per sq. ft.

And as to the performance of the CAMBRIDGE I., it may well be left to speak for itself in the article which follows.



The "Cambridge I" making a turn.

Thermal Flights from the Winch

[*The first cross-country flights from the Cambridge University Gliding Club's site are notable events, in that the club has no hill for soaring, and has to rely entirely on thermal currents rising off a flat field.*—ED.]

1.

ON May 2nd I had the good fortune to make the first cross-country flight from the Cambridge University Gliding Club's site at Caxton Gibbet to St. Neots, about seven miles away. I was launched to 800 feet in CAMBRIDGE I. at 5.30 into an almost cloudless sky, with the wind blowing from the east at 10—15 m.p.h. Shortly after releasing the variometer "kicked" slightly, and I immediately started circling to find out why. A sharp figure 8 brought me into the area of lift, which was large enough to allow of quite gentle circles, and I rose steadily at 2—4 feet per second to 1,400 feet, where the thermal seemed to break up. I wasted some valuable time and height circling among the fragments, then decided it was impossible to get back to Caxton, and set off down-wind in an attempt to reach St. Neots with sufficient height to make use of any thermals it might offer. However, I arrived over the outskirts of the town with only 300 feet to spare, and with no chance of a safe landing for a long way ahead, so turned back, and after clearing a concealed ditch by inches, landed in a ploughed field by the road.

K. LINGFORD.

2.

May 24th was the sort of day that sailflyers dream of; very hot, and a sky full of cumulus. So, killing my conscience (it was a Monday), I downed slide rule and went out to Caxton Gibbet to make alternate attempts with Lingford at catching thermals in the CAMBRIDGE. I got a bite on my second launch at about 700 feet, and by circling and edging into the centre of the up-current was able to climb slowly but joyfully higher, until after about a quarter of an hour I was at 2,400 feet and just beneath the base of a large cumulus. Then to my surprise the thermal gently died—a blessing in disguise, perhaps, as the parachute I should have worn was away being re-packed.

I searched around the cloud for more activity, but could find none, so set off towards a hot looking village a little way down-wind. When I reached it I had sunk to 1,200 feet, but the hoped-for thermal was there and took me gently up to 2,000 feet again before giving out. On the way up I was given the once-over by an inquisitive "Monospar," mystified, no doubt, at seeing an engineless craft swimming round at such an indecent height.

I then tried two more villages, each on the principle that it offered contrast with its surroundings—woods in one case and flooded fields in the other; but the first gave me scant help, and the second none at all. I dropped slowly down to 600 feet, at which height hope was revived by some very weak lift over a mustard field. A few minutes' desperate work actually gained me 100 feet; but it was no use. Tap the instruments as I might, they would not do their duty. I landed in a large field beside what transpired to be the hamlet of Rampton, 10 miles from Caxton, 42 minutes after taking off.

KEITH TURNER.

3.

The third thermal flight in the CAMBRIDGE is of interest chiefly as being a fine demonstration of skill by a pilot with only two hours' soaring experience. F. T. Gardiner succeeded in staying up for a quarter of an hour after a winch launch and in rising to about 1,400 feet. He tried to return to Caxton against the wind; but, missing it by three miles, nevertheless earned the gratitude of the retrieving crew by landing just beside a gate opening on to the main road.

Progress of the "King Kite"

FROM A CORRESPONDENT

THE members of the Wasserkuppe team have been putting in as much practice as possible on the new machine. Handicapped by the entire absence of soaring winds during the past few weeks, recourse has been had to aero-towing. Major Shaw's Avro "Cadet" has now arrived at Welburn aerodrome, complete with towing gear designed specially by Messrs. Airworks, and Mr. McMurdo has been heroically towing people to great heights and in great numbers.

Down south, Capt. Phillips, of Messrs. Air Publicity at Heston, has given up two Sundays and several weekdays to the same end.

The "Cadet" was finally passed at Heston on May 11th, and was then held up by the Coronation weather of that week and finally got through with an exasperated Peter Shaw as pilot on the evening of the 14th.

In the meantime the York Aeroplane Club had generously agreed to let us use their excellent and vast new aerodrome at York over Whitsun, so on Saturday, May 15th, the KING KITE and a Yorkshire Club GRUNAU arrived there. There had been some speculation as to how well the "Cadet," with its 140 horses, would compare for aero-towing with the Avro "504's" previously used, particularly with a 500-lb. machine stalling at 40 m.p.h. to get off the ground. However, by taking off with the flaps half down, she handled the job with ease, in hardly any wind at all.

It was an absolutely stable day, as was the next, so the opportunity was taken to get the performance figures as accurately as possible. A new A.S.I. had been fitted since the test flights described by Corunus in the May issue of THE SAILPLANE, and this instrument checks up exactly with the A.S.I.'s of both the "Cadet" and the "504," so there can be no doubt that it is accurate. The instrument first fitted was quite inaccurate, so the figures given in the above-mentioned article should now be ignored.

The correct figures, which are, of course, in the nature of things only approximate, are :—

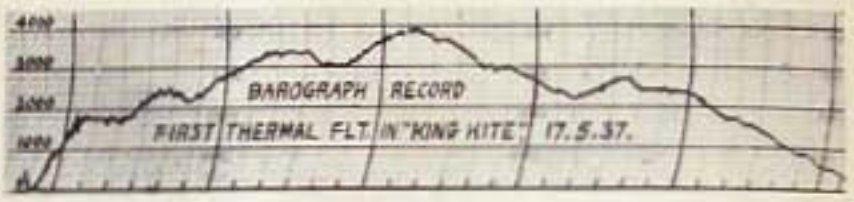
Stalling speed: Flaps up, 40 m.p.h.; flaps half down, 38 m.p.h.; flaps down, 35 m.p.h.

Flying speed: Flaps up, 45 m.p.h.; flaps half down, 40 m.p.h.; flaps down, 37 m.p.h.

Sinking speed: Flaps up, 2·7 ft. per sec. at 45 m.p.h., 4 ft. per sec. at 55 m.p.h., 5·5 ft. per sec. at 65 m.p.h.; flaps half down, 2·7 ft. per sec. at 40 m.p.h.; flaps down, 4 ft. per sec. at 37 m.p.h.

The gliding angle comes down from 1 in 25 with flaps up to 1 in 13 with flaps down. The performance at the lower end of the speed range is practically identical with that of the RHÖNSPERBER, whilst at high speeds the KING KITE seems definitely superior. Approximate figures for the "cruising speed" of different machines, defined as the air speed at 2 metres per second sinking speed, are: GRUNAU BABY, 45 m.p.h.; HJORDIS I., 58 m.p.h.; RHÖNSPERBER, 67 m.p.h.; KING KITE, 70 m.p.h.

On Whit Monday afternoon the first sign of thermal activity for a week was seen in the shape of a small street of cumulus forming over Strensall, the only dry patch of land for miles, about 5 miles east of the aerodrome. With a cry of "taxi!" Wills leapt into the KING KITE, the "Cadet" was wound up, and off they went. Arrived at the cloud, Wills released at 1,700 ft., and in the entire absence of wind played around over the one spot for three-quarters of an hour, climbing to just on 4,000 ft. The cloud then started to vanish; Wills returned to the aerodrome, and by the time he had landed the whole street had vanished. A record of this flight on a high-speed barograph is interesting in showing that the upward-moving air is much rougher than the surrounding down-currents.



The same results might, of course, be obtained by either bad circling or recurrent hiccoughs brought on by lessening air-pressure.

The following Saturday the machine was brought down to Dunstable, and ground-hopped by Hiscox and Mrs. Price. On Sunday she was towed over to Fenny Stratford, the "504" taking her off from the Dunstable ground in a light south wind. Mrs. Price reported that she was wonderfully steady in an aero-tow; at 60 m.p.h. she is practically silent and the controls remain light and not over-sensitive in action.

On Sunday, May 30th, Capt. Phillips again arrived with his "504," and the KING KITE was again towed up in a very light W. wind. Both Mrs. Price and Wills just failed to soar, the conditions being as unfavourable as possible for the machine. The RHÖNADLER and SPERBER were just holding it, and Wills reported that with practice in accurate turns at low heights he would have been able to do the same. With a high-speed machine of such clean lines, accurate turns are very much a matter of practice.

On his take-off, Wills had two bad bumps over the uneven ground, which was very hard and dry for the first time this year, and probably one of these cracked the skid, because on what seemed a normal landing the skid disintegrated. By Herculean labour on the part of Hedges and a numerous, willing, if slightly inexperienced team of helpers, a new skid was fitted in time for Hiscox to be towed over to Heston in the evening. On his way down after releasing, Hiscox put the speed up to 80 m.p.h., and reported that she was absolutely silent, steady and easy to handle at this speed.

On Monday, May 31st, Hiscox was twice towed to 2,000 ft., from Heston, but failed to find any lift. On Tuesday, however, Wills and Neilan turned up in exceedingly hopeful-looking conditions. A plan was hatched for Wills to make a goal-flight to Lympne, in the prevailing light W.N.W. wind, and for Neilan to follow in the "504" and be towed back. Wills was

towed up to 2,200 ft. and released over Uxbridge. He came back towards Heston and found lift over the gasworks. Climbing slowly in broken lift, he reached 3,900 ft. over Chiswick. At this stage a good-looking street presented itself going in the right direction—which was plumb over St. Paul's Cathedral, the East End of London, and heaven knew what hazards beyond. On each side were wide lanes of obviously descending air. Wills's heart failed him, and he turned back. The speed of the KING KITE got him easily back to Heston, and finding no more lift he landed after three-quarters of an hour in the air.

Neilan was next towed up to a good-looking street of cloud beyond Uxbridge. He released and climbed rapidly to the cloud-base, entered the cloud, did two or three circles on his blind-flying instruments with caution, came out and played around in and out of the street, left it and flew down towards Hounslow, and finally landed after an hour in the air during which he reached 4,500 feet.

An interested spectator during the morning was Lord Londonderry, whom Neilan had accompanied to Heston for a lesson in blind-flying.

[Since the above was written, further flights have been made. On the same Tuesday, as late as 7 p.m., Hiscox climbed to 2,400 feet after releasing at 2,000 feet, and was up 25 minutes. Next day (Wednesday), Dewsbery climbed from 3,000 to 4,800 feet during an hour's flight between 6 and 7 p.m., after which Hiscox went up and managed to hold his height at 2,000 feet for 21 minutes over the gas works.

On Thursday a new KING KITE arrived from Slingsby's and the old one was taken away. The new one has a different shaped rudder—wider at the top. It had been put through thorough tests by Flight-Lieut. Watt at Catterick and Thornaby, including spins with all positions of the flaps, and had behaved excellently, showing no vices whatever. On the previous Saturday he had been up over Kirbymoorside at 8,000 feet.

After arrival at Heston it was at once taken up by Neilan for 1 hour 10 minutes, and has since been flown several times by him, Hiscox, and Mrs. Price, who climbed in it to 4,800 feet.—ED.]



Envy! The "King Kite" approaching to land on York aerodrome with flaps down.

(Courtesy "Northern Echo."

The International Competitions

The proposed *personnel* of the British team for the international competitions on the Wasserkuppe has undergone many changes since it first began to be discussed by the appropriate committee. The list we gave last month turns out to have been only provisional after all. However, as the entry forms have to be sent in on the day this issue of THE SAILPLANE goes to press, the following list of the team should be as near final as it is possible to get:—

P. A. Wills and J. C. Neilan ...	...	HJORDIS I.
J. C. Neilan and P. M. Watt ...	...	KING KITE
P. M. Watt and G. O. Smith ...	...	KING KITE
D. G. O. Hiscox and Mrs. Price	...	KING KITE
W. B. Murray and J. S. Fox ...	...	FALCON III.

Information having been received that the regulations would permit a pilot to be entered for more than one machine, advantage has been taken of this in the selection of the final team. The five sailplanes will be given identification letters, similar to those used on aeroplanes; these will be G-GAAA to G-GAAE in the order given above.

An Anglo-German Camp

The Anglo-German Circle has for some years been organising "work camps" for the promotion of friendships by personal contacts between young people of both nationalities. Last year, in addition to the ordinary camps, a gliding camp was held in Germany. This year a similar gliding camp is to be held in England from August 7th to 16th, the site being that of the London Gliding Club at Dunstable Downs. It is to be hoped that a large number of people from this country will join the camp, as the participation from the German side is already assured. Details can be obtained from the Secretary, London Gliding Club, Dunstable, Beds.

Particulars of other gliding courses, at the Yorkshire, Midland and London Gliding Clubs, at Salzburg in Austria, the Hornberg in Germany, etc., or the addresses from which particulars can be obtained, were given in our last issue on p. 106.

News from the Clubs

Cambridge University Gliding Club

Expedition to Dorset.

During the latter part of March a club camp was held at Kimmeridge, Dorset, by kind permission of the Dorset Gliding Club. Two machines were taken, CAMBRIDGE I. and the new club-built nacelled SUPER-DAGLING; also launching equipment in the form of a winch and a hand-bungy. Of the nine members who attended the camp, it was hoped that about half, who had not yet done any soaring, would get their "C's"; but as several of these joined up at Dunstable and soared there just beforehand, the club's gloating statistician found himself badly let down. One "C" certificate the Cambridge Club did, however, triumphantly return with; so three cheers for Toby Kidd, who earned it.

Hectic last-minute work on the DAGLING and the new mobile winch (which it is hoped will be described in a later issue of THE SAILPLANE) somewhat delayed departure from Cambridge, and it was not until the early hours of Friday, March 19th, that the strange-looking procession of cars, trailers, and winches finally got stuck in the mud of Kimmeridge Hill. Everyone dropped asleep more or less *in situ*, and flying that day did not begin until towards evening, when the CAMBRIDGE was soared over the west slope for an hour and a half in conditions which can only be described as idyllic. The air was as smooth as silk, and the sky blue; and a few hundred yards in front and below stretched the beautiful Dorset coast, with Lulworth Cove on the right and Swanage on the left. Flying up-wind, and crossing the cliffs at a height that seemed to dwarf them, one was able to get over the sea before having to turn and race back to the hill-lift again. MacClement, who was first to fly, was bungy-launched with difficulty; but during the 55 minutes of his flight the winch was set up, and the next pilot, Turner, was able to take off in comfort from the landing field. After 35 minutes, while admiring the sunset out at the other end of the beat, the pilot was caught napping by a sudden drop of the wind, but had just enough height to scrape in to a hill top landing.

The next day, Saturday, brought a S.E. wind, and a little soaring was done over Encombe Slope, round the corner of Swyre Head (for the first time, we were told, in history). John Pringle was winch-launched, but soon disappeared into low cloud; when next seen he was right behind us, coming in to land. Later, when the clouds had cleared, the wind had so dropped that MacClement was forced to land at the bottom after eight minutes.

During the afternoon several Dorset Club members turned up from Yeovil radiating cheerfulness in the snowy weather, and only too anxious to help retrieve the CAMBRIDGE. We were sorry that they had no machines of their own available in which to show us how things should be done. Another visitor was Mr. F. W. Armitage, bringing a car load of members of the Bryanston School Glider Club.

Sunday was spent rigging and test flying the new DAGLING, with ground-hops all round. On Monday, there being a north wind, both machines were taken to the top of the north Purbeck ridge, but were almost immediately enveloped in a snowstorm which blew the DAGLING over in its trailer. When the storm was over, John Pringle was "bungied" off in the CAMBRIDGE, and after a few beats above the launching point disappeared along the ridge to the right in the direction of Corfe Castle. When found by the retrieving party he reported that, having reached the castle safely and achieved a long-standing ambition of circling above it in a sailplane, he was let down by the wind on the return journey and forced to choose between a difficult hilltop landing and a half-day's work for the retrieving crew. He chose the former, but unfortunately hit a bush and damaged the CAMBRIDGE in the process. The machine was immediately packed up and taken back for repairs to Dunstable, where it was operated during Easter by Simpson and Turner—and, the latter being kept busy chauffeuring the London Club two-seater, Simpson had it to himself and justified its description as a "high performance sailplane" by thermal soaring for ten minutes from a winch launch.

Meanwhile, at Dorset, the slight damages to the blown-over DAGLING had been made good, and on Tuesday, March 23rd, descents from the north Purbeck edge were made by Maufe and Pat Pringle.

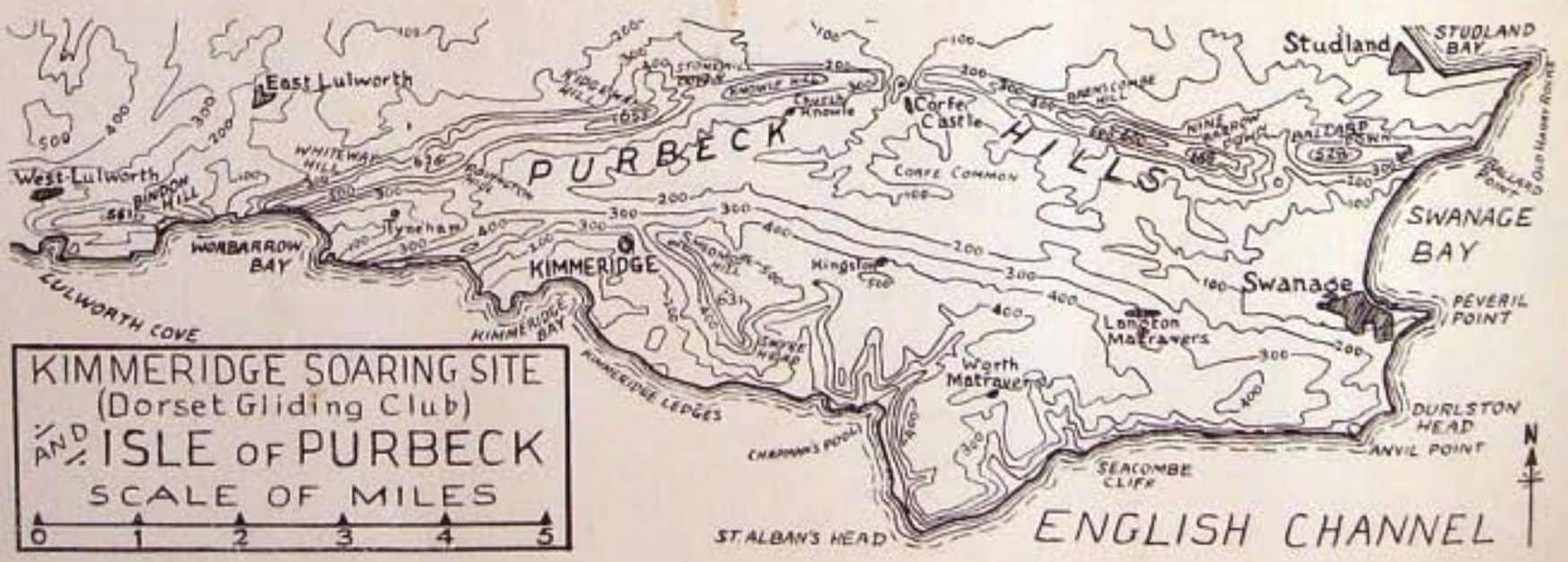
On Wednesday and Thursday soaring was again possible at Kimmeridge, and various flights in the DAGLING were made by Kidd, Maufe, the two Pringles, Gardiner, and Griffin. Kidd was thus able to qualify at last for his "C," and Pat Pringle would have done so had not the landing wires broken at the end of his 12 minute flight. On Friday an unfortunate collision with a stone wall brought the camp to an end.

The general opinion of those who attended is that, for multiplicity of soaring slopes, for ease of landing, and for delightful scenery, the Dorset Club's site is (in good weather!) one of the best in the country. And for cross-country aspirants there is, in a south wind, a straight line course down-wind of 580 miles to John o' Groats!

Back in Cambridge.

The beginning of the Easter term has marked two important steps in the club's history; firstly, as will be seen below, we have at last succeeded in soaring over our flat fenland; and secondly, thanks to improved finances, to Mr. Slazenger's generosity, and to the Government subsidy, we have been able to fill in several gaps in the club's fleet of sailplanes. The fleet now consists of: Open DAGLING (Slingsby), Nacelled DAGLING (home made), TOTTERNHOE (Dart Aircraft Co.), CAMBRIDGE (Dart Aircraft Co.), and KIRBY KITE (delivery expected shortly). Also two winches and two towing cars.

On **Sunday, April 25th,** the new open DAGLING was flown for the first time, to the great delight of those who did high launches in her. (Her eventual fate, of course, is to be ground-trundled by beginners.) Thermal conditions on this day were excellent, but the CAMBRIDGE, alas, was elsewhere, and the KITE not yet delivered. So several of our members did the next best thing, and took up "Drones" of the Ely Aero Club. In one of these



Simpson caught a thermal at 600 feet and, throttling back and circling without a variometer, reached 3,000 feet in six minutes. There were also up-currents over Cambridge itself.

Cross Country Flight.

On **Sunday, May 2nd,** the usual week-end flying took place, and Lingford looped the CAMBRIDGE again. But the great event of the day was the first cross-country flight yet made from Caxton, which, although only seven miles long and taking half an hour, does show that a hill is not a necessary part of a soaring site. Lingford, the pilot, was launched in CAMBRIDGE to 700 feet, found a thermal shortly after releasing, and circled up to 1,400 feet. He had by then drifted slightly down-wind, so, instead of returning, flew on to St. Neots in the hope of finding more lift there. But he arrived too low over the town, so turned back and landed in a field by the main road. It appears that, but for the fine performance at Dunstable the previous Sunday, this would have been the first British cross-country flight made without the help of hills or aeroplanes.

Since the above was written, two more pilots have succeeded in thermal soaring. Their flights are described elsewhere in this issue.

A Club Room.—The club now has a convenient club room in Cambridge itself at 1, Benet Street. Artistic members are being encouraged to deal suitably with the walls. At a general meeting held there recently, K. W. Turner resigned the secretaryship after two years' service, and his duties were taken over jointly by J. W. S. Pringle (treasurer) and P. M. Thomas.

Midland Gliding Club

Following the resignation of Commander Williams, Mr. J. B. Keeble, late of the London Club and Messrs. Dart Aircraft, has taken over the duties of Club Manager-Instructor-Constructor—and anything else the committee can think of. We wish him every success in his appointment and ask for the co-operation of every member to help him to lead the club to greater activities and prosperity.

During the Whitsun Holiday a team of four—Reilley, Everall, Stanford, and Rushton—took a KADET over to the Derbyshire Club's site to compete against a similar KADET team from that club. Unfortunately no soaring was possible, so the competitions were decided by a spot-landing contest. This became very exciting, particularly when the finalists of both teams landed 3¼ yards and 3¾ yards respectively from the mark. The Challenge Trophy was thus awarded to the Midland Club team, and it is hoped to arrange a return match during the August holidays.

The three owners of H17 were also at Camphill by invitation, and the week-end was most enjoyable from every point of view. We understand that this first inter-club competition is reported elsewhere in this issue in greater detail.

May 1st and 2nd.—Winds variable, light, with a distinct east and north-east tendency.

The new tractor winch was used at the Mynd to give TIDDLER a few launches on Saturday afternoon, but it was too late to make contact with thermals. Late in the evening the Brooklands GRUNAU arrived, looking exceedingly attractive in new "off white" paint. Wynne and Everall slept in the hangar that night; some say either side of the GRUNAU, but that may be just leg pulling.

Thermal Flight from the Winch.

On Sunday, Wynne, in "our" GRUNAU, made the first thermal soaring flight at the Mynd, from a winch launch without any assistance from hill lift. He remained in the air for just over 20 minutes and flew due east, or up-wind, for some three or four miles before returning. If this is a sample of what may be expected regularly at the Mynd during the summer, it will not be long before the club will have its first "Silver C" pilot. Everall had one or two winch launches in the GRUNAU before the day ended.

The KITE has now returned from Slingsby's, fitted with a new and deeper fuselage. It spent all last Sunday doing a little publicity work during an Air Display given in Birmingham, and was greatly admired.

May 9th.—An east wind and warm sunshine did not allow any slope-soaring to be done. However, Wynne and the Wynne-Everall-Hannay GRUNAU found thermals off the winch launch and climbed to 1,300 feet above the start, remaining in the air for 20 minutes. Let this encourage members to come up to the Mynd for flying whatever the wind direction.

May 27th.—A west wind blowing all morning tempted a party to the Mynd in the evening. They arrived there at 6.15 p.m. and found that the wind had backed slightly, but was still soarable. During the 15 minutes or so taken to get machines out, however, the wind swung to due south—so that was that.

May 29th and 30th.—A grand week-end—west wind at 15 m.p.h. and thermals galore. All available machines were in the air until the wind died at 9.20 p.m.

Olver found a juicy thermal in the KITE over Pole Cottage and circled up to cloud base at 2,800 feet, nearly over Church Stretton. Edwards followed in the same machine and found another thermal over the same spot and screwed himself up to 2,700 feet.

Wynne and Everall put in some time in "our GRUNAU," Wynne giving us a pretty exhibition of stall turns.

FALCON III. was kept busy all day, much to the disgust of the launching and retrieving horse. Thwaite and Olver flew H17 for a total of 1 hour 40 minutes and Everall (John) and Griffiths put in legs for their "B" with flights of 30 and 55 minutes respectively. Rushton qualified for his "C" in the KADET with a flight of 40 minutes.

Olver was invited to sample the GRUNAU and in it found a thermal as late as 7.15 p.m., which took him to 1,000 feet. Later still, Healey in the KITE found gentle unbroken lift extending over the whole valley and was able to fly in any direction without loss of height.

May 31st.—Barnes, Testar, Swann, and Miss Astbury, hearing of yesterday's doings, left Birmingham in the evening and arrived at the Mynd at 7.45 p.m.—dug out Keeble and his assistant and had FALCON III., a KADET, and H17 in the air by 8.25. Flying times were: FALCON III., 65 minutes; KADET, 20 minutes; and H17, 60 minutes, making a total of 2 hours 25 minutes, which is not bad with a total personnel of six and only two hours of available daylight.

Newcastle Gliding Club

The most important news this month is the testing of the Chillingham soaring sites. These seem promising. An expedition from Cramlington set out early on Sunday morning, **May 23rd,** with the GRUNAU in trailer and the winch car. The winch was taken to Amersidelaw and left there, as this site is regarded as our base for the Chillingham area since it has a good landing ground, a longer beat than Chatton Hill, and a steeper slope. As the wind had gone round to the south of west when we arrived it was thought that a good opportunity offered for trying out Chatton Hill. The GRUNAU was accordingly taken over there with shock cord and crew. S. C. O'Grady made the first flight and came in to land after 15 minutes, whereupon Hick was launched for his "C" certificate. He obtained this with a flight of 24 minutes, after which O'Grady was launched again. The wind had now dropped considerably, and after a few beats the GRUNAU went to the bottom. This was according to plan, as it was getting late and the bottom field was a convenient place for dismantling after getting the trailer down the hill.

Winch and trailer were left at Chillingham for the next week by courtesy of Lord Tankerville.

On **Saturday, May 29th,** a party went to Chillingham again and spent afternoon and evening getting winch and trailer into position at Amersidelaw. An early start was therefore possible the next day. O'Grady made the first flight of 45 minutes, gaining 1,400 to 1,500 feet above the hill, and then Smart was launched. He took his "C" certificate with a time of 24 minutes and then came in to give Allan a turn. As soon as John had gained 600 to 700 feet above the hill he hopped the gap by Ross Castle and set off down the ridge. He appeared, from the landing ground, to be losing a good deal of height, but got as far as Bewick, about three miles away, and came back with plenty in hand. His time was 40 minutes, giving us our second "C" certificate for the day. Both these flights were first efforts at soaring. Meanwhile Roberts and Hick had arrived, towing the latter's little MERLIN, which then proceeded to put up a very good show with the owner-builder as pilot. It gained height very rapidly while O'Grady wandered about in the GRUNAU watching it from above. This flight of O'Grady's lasted an hour and, shortly after he landed, the MERLIN came in too with the same time to its credit. Total flying time for the day, 3 hours 49 minutes.

Training has been going on at Cramlington as usual, Alex. Bell taking his "B" certificate on Sunday, May 16th, and a fresh batch of beginners working toward their "A" certificates. Certificates taken this month: three "C" and one "B."

Derbyshire and Lancashire Gliding Club

Throughout the month of May training has proceeded on an extensive scale. Membership is increasing steadily, early morning starts at the week-end have at last been achieved, and the outlook generally is promising. The results of the month may be tabulated as follows:—

Shock cord launches	453
Winch launches	423
Pupils instructed	42
"A" Certificates gained	6
"B" Certificates gained	6
"C" Certificates gained	6
Hours flown	48 hours 25 minutes

Varied and interesting soaring conditions were experienced during the latter half of the month, both the south and westerly slopes being used. Private owners revelled in the conditions and many of our young "C's" got in much good practice on the KADET and the NACELLE DAGLINGS. The FALCON III. was also in large demand for instructional soaring flights. THE NEW FALCON I. unfortunately wrapped itself round a tree, but has been straightened out most expeditiously, thanks to some brilliant work by John Noble on the fuselage and by Slingsby on the wing, and is now back in service.

Evening Thermals.—On warm days the local "evening thermal" has been regularly produced and provides conditions in which "C's" can be obtained with a maximum of ease and safety in west winds as low as 10 m.p.h.—as witness C. Verity's attempt on the evening of the 29th, when he reached nearly 800 feet without difficulty and "just let the darn thing fly itself." This thermal activity is probably caused through the displacement of accumulated warm air in the valley by cooler air pouring in from both sides, a theory confirmed by the fact that the wind sock at Bradwell Edge has been observed to be blowing away from the hill on some such occasions, although the upper wind remained westerly. It is common in these conditions for a low and dense cloud street to form rapidly and to remain apparently stationary until long into the night.

No enterprising soul has yet tested the theory that a machine will soar in other than west winds with a launch from Bradwell Edge in these conditions, although we hear rumours that such an attempt is to be made. Frequently, when winch-launched into easterly winds for a circuit, machines have completed a beat of the west slope without appreciable loss of altitude, which indicates that the adventurous pilot who is prepared to risk expending a few shillings for the refreshment of his trailer crew may be well rewarded for his enterprise if he can fly out over the valley into the lift area. Perhaps more of this anon.

Inter-Club Match.—Over the Whitsun week-end a team representing the Midland Club was entertained for an inter-club soaring match on KADETS. Unfortunately light north-easterly winds prevailed for three days, and as soaring was impossible the contest was changed to a spot-landing competition on KADETS between teams of four a side, the best individual performer in each team to meet in the final. These proved to be Rushton, of the Midland Club, and Booth, of the Derbyshire and Lancashire Club. Rushton, who had not yet got his "B" licence, won the toss and decided to go first. He not only completed the test for his "B" licence, soaring along the west slope in an east wind in the process, but rounded off the performance by landing almost dead on the mark. Booth, amidst the commiserations of his team mates, set out on his seemingly hopeless task and finished only six inches further away than Rushton, to end an extremely close and sporting contest. The trophy, a handsome beer tray, suitably engraved, thus passed to our Midland friends, but we look forward to the return match and the chance of retrieving it.

Despite the disappointing conditions the meeting was a most enjoyable one and definitely demands repetition.

This Month's Howler.—Pupil, after completing "A" licence tests on the open DAGLING with a faultless descent and landing: ". . . and all I've got to do now is to learn to control the thing!"

Ulster Gliding Club

Saturday, May 1st, saw our new KADET here and flying. The story behind it all may never be known, but she was damaged in transit and an S.O.S. was sent to Slingsby. Service After Sales personified saw Baster here within 15 hours and the machine flying all the afternoon. Good work, Sling!



The Ulster Club's fleet lined up on Magilligan Strand: "Falcon III," "Kirby Kadet," "Grunau Baby," and "Kirby Kite." Below: the six members who have just qualified for certificates.

In trepidation we towed up Webb, Henry Turtle, and Metcalfe (J. P.) into a gentle breeze (this being the experiment referred to last month of transferring *ab initio* pilots straight from dual control training on to a secondary machine, without any solo training whatever). In all the machine did 29 flights, and all of them extremely good. In their last flights they were pulled up to about 300 feet and allowed to do what they wished, more or less. Greatly heartened, we packed up as the tide came in.

Wednesday, May 12th.—KADET and FALCON III. busy the whole day with solo and dual work, while Liddell amused himself for 1½ hours in his KITE, trying to get a Cobb-Slater variometer to work. No excitement.

"A's" qualified for by McCleery and Webb.

"B's" qualified for by J. P. Metcalfe, Douglas, McCleery, Webb, Turtle, and Beck. Total time, 5 hours.

Saturday, May 15th.—We begin to feel we are progressing. A gentle N.W. wind made it possible to push off J. P. Metcalfe, Webb, and Douglas for their "C's," which they took meritoriously and without trouble at between 500 and 600 feet. Beck tried, but had bad luck with the wind and retired to the stream. Henry took his "A" and "B."

Rather peculiar cloud formation some 300-500 feet above the cliff with everything clear to seaward and a shelf of cloud about 100 feet deep, above which it was at times possible to climb, giving one a feeling of vasty loneliness, and it must be admitted a feeling also of great superiority. There was just enough lift to support a machine on top of this shelf, but the farther inland one got the more one became enshrouded, and a retreat was always made to the edge again. The lift was remarkably stable at about three to four feet per second. The sensation of diving into one's shadow, which was permanently surrounded by a rainbow-hued halo, was peculiarly attractive.

Metcalfe (N.) had about two hours in GRUNAU, accompanied by Liddell in his KITE; Mackie stuck to the FALCON III., and all round a pleasant day was had by everyone. Flying time, about seven hours.

Saturday, May 29th.—FALCON III. made ten auto-towed training flights. No excitement other than a mildly gusty S.W. wind.

Sunday, May 30th found the wind slightly more westerly, and it was found possible to reach, after one abortive attempt, the Hell's Hole cliffs. It was necessary to scrape up all the spare wire cable we could get, join it up and tow up to 1,000 feet to enable us to do this. Everything went well until, on the fourth flight, the cable broke with the FALCON at about 400 feet. The pilot, not reckoning with the drift, dropped the cable, as he thought, on the beach—splash went £6 in the shape of some 1,200 feet of good wire rope. *Finis* to flying! Liddell, who had just got his KITE erected, had to put her away again.

Summary for May.—140 flights, 14½ hours, 5 "A's," 7 "B's," 3 "C's."

Yorkshire Gliding Club

Sunday, April 18th.—Wind N.W. to N., 20 m.p.h., turbulent. Not a very pleasant day; however, Wills was launched for the first soaring flight of the KING KITE, which lasted 15 minutes. Wordsworth, Lingford, and Pick flew the G.B., but the maximum duration was only 20 minutes. Later Currie made a good attempt at his "C," but came in after 2 minutes. Training in the HOLS finished off the day.

Monday, April 19th.—Wind S.W., 15 m.p.h. A contingent from Kirbymoorside arrived with the KING KITE; Slingsby, Sproule, Watt, and Shaw flying it. MacMurdo and Shaw also flew the KIRBY KITE.

Wednesday, April 21st.—Wind S.W., 25 m.p.h. Verdon Roe and Currie got out the KADET and did 20 minutes and 27 minutes respectively, both qualifying for their "C's." This comes of being on the spot when a S.W. wind is blowing.

Saturday, April 24th.—Wind N.N.W. Training in the DAGLING and circuiting in the G.B.

Sunday, April 25th.—Wind N. to N.N.W., 30 to 40 m.p.h., turbulent. The G.B. was flown by Wordsworth, Stedman, and Pick, and Barker took out his SCUD III.

Saturday, May 1st.—Wind slight, N. to E., *nil* to 10 m.p.h. Buxton soared the KING KITE. Later, Hartness hopped the HOLS, qualifying for his "B." Others did some good work on the DAGLING, and Wordsworth and Heath circuited the G.B. Conditions became wonderfully calm towards evening.

Sunday, May 2nd.—Wind S.E. to E., 10 m.p.h. Mist until 2 p.m. Heath and Wordsworth tried the South Slope in the G.B., Fisher circuited the KADET, and others put in time on the DAGLING.

May 8th, 9th, and 12th were devoted to training.

Whitsuntide Meeting.—On Saturday and Sunday conditions were poor. The HOLS was hopped, and the KADET and FALCON were circuited. Several went off to York for aero-towing.

On Monday training again was the order of the day, Hinchcliffe, Halton, and Dene-Drummond qualifying for their "A" certificates. Miss Coope started her training on the DAGLING. The KADET was circuited and the G.B. flown. In the evening members went to the Ryedale Gliding Club Dance at Kirbymoorside and all had a very enjoyable time. Next day Holdsworth, Briscoe, and Alderson flew the KADET and others eventually departed for home.

Aero-towing.—Facilities were available over the Whitsuntide week-end with the Avro "Kadet," by kind permission of Major J. E. D. Shaw, president of the club. Although Welburn is eventually to be the base for aero-towing, tests were carried out at the York Aerodrome of the Yorkshire Aviation Services. Members of the international team and club members took part.

Wills was aero-towed to 1,600 feet, reaching 1,800 in thermals, flying the KING KITE. Neilan in the KING KITE got up to 1,600 feet and gave us two loops. Wordsworth, Sproule, and Shaw also had flights, Wordsworth in the G.B. being aero-towed from York back to Sutton Bank at between 1,200 feet and 1,600 feet. He released at Sutton Bank at 1,600 feet and remained in the air for a further 12 minutes in thermals.

On Monday Slingsby was aero-towed from York to Welburn Aerodrome in the KING KITE.

Furness Gliding Club

Sunday, May 2nd.—Wind S.E. and too weak for soaring, but suitable for hopping the HOLS. Mechanisation has created a dislike for manual labour, and so it was decided to fly the machine over a five-foot wall, straight from a car launch. Unfortunately, things did not work out to plan, and though the wall proved quite good as a shock-absorber the HOLS needs some repairs. Pilot's confidence still unshaken.

Sunday, May 9th.—In a cold east wind it was useless to attempt flying on the site, so arrangements were made to try out the "STEVENS SPECIAL" on the beach. The method of testing and the machine's fine performance were both an unqualified success. On these preliminary flights Stevens had complete control; by using a short tow wire, a slight dip of the nose was sufficient to unhitch the wire, then to the delight of all present the machine virtually floated in the breeze on an even keel, answering all controls instantly, and finally settled down like a feather. Anyone who has built a new machine will appreciate what a joy it is to find the trim perfect. This machine is the result of 14 months' hard work by Mr. and Mrs. Stevens, and should, we think, be called the "BILL AND DOT." She is a credit to her builders. Surely no greater tribute can be paid to any pilot than an invitation to have a "joy ride" in such a machine.

Saturday, May 15th.—Slight S.W. wind, bright sun. Stevens had his first ride from the hill top. Three people managed easily to rig and launch the STEVENS SPECIAL. As she glided beautifully towards the beach a slight thermal was encountered, giving sufficient lift for three or four circles and a sedate landing on the golf course.

Sunday, May 16th.—More flights in the STEVENS SPECIAL to the beach. Day very hot and sultry.

Sunday, May 23rd.—Hot day; no wind and no novices to train, so Charles entertained the workers by a few circuits in the KIRBY KITE in the hope of finding thermals, while others tarred the roof of the hangar.

Thursday, May 27th.—Stevens had two nice soaring flights in his SPECIAL, and Smith, who has secured a partnership in this machine, flew her nicely to the beach.

Saturday, May 30th.—A west wind. The day had been set apart for training beginners by auto-towing on the beach. Before operations had begun on the sands, Stevens could be seen having the time of his life 1,000 feet above the hill, while a KIRBY KITE lay dormant in the hangar. What a temptation it must have been to Charles to abandon ship and join Stevens in the air! To his credit he stuck to his guns, towing one after another into the air in the primary on the beach.

Wilf Smith then flew the KIRBY KADET down to the sands and returned to the hill-top post haste to get Stevens off once more. The KIRBY KADET was pressed into service on the ton wire and was flown alternately with the primary. Len Redshaw flew the KADET in first-rate manner, making the requisite qualifying flights and his "B." Skirrows flew the primary nicely, and by this time we had a gallery of spectators.

Charles took his two sons, aged two and four years respectively, on separate circuits. This is probably the first time a KIRBY KADET has carried passengers, and Brian Charles is possibly the youngest passenger to fly in a sailplane. Meanwhile Wilf Smith was taking his "C" ticket in the STEVENS SPECIAL at 1,000 feet above the hill—1,800 feet above sea level. He flew like a master for an hour. "*Der Tag.*"

Monday, May 31st.—Another great soaring day, and this tempted L. Redshaw to emulate the deeds of Smith by taking his "C" in the KIRBY KADET; although he flew at high speed he succeeded in doing 32 minutes, landing back on top of the hill.

The "Hindenburg."—There are many people in Furness who have a great regard for airships and admiration for the crews who navigate them. It was with profound sorrow that we learned of the loss of "Hindenburg." The price of progress is heavy, yet we trust the work will continue.

A Club for Oxford University

Efforts are being made to form a gliding club for Oxford University. When Dr. R. S. Rattray, of the London Gliding Club, who is a lecturer at the university, took up the question a few months ago, however, it was found by him and the other promoters of the scheme that they were up against a University Statute which rendered the formation of such a club impossible. The statute is reproduced below, together with a literal translation by a classical scholar.

As a University Statute is not unlike the laws of the Medes and Persians, and about as difficult to get altered as an Act of Parliament, the first thing to do was to put up such a case as would influence the Hebdomadal Council to repeal the Statute. Efforts to this end are now being made, and there seems good prospect of their meeting with success. In that event there will, of course, still remain the preliminary spade work of forming the club and getting it under way.

So the day may yet come when the respective "soaring cohorts" (*vide* Statute) of Oxford and Cambridge will meet in friendly rivalry.

The Statute.

TITULUS IV—De Moribus Conformandis. SECTIO 14—De Vehiculis. 3. . . .

Statutum est quod nullus Scholaris qui adhuc in statu pupillari sit, intra terminum ab aerodromo quolibet ascendat qui intra viginti milia passum ab Oxonia distet, neve in aerodromum sic situm descendat, nisi qui Universitatis Aeronautarum Coborti sit ascriptus. Add. p. 1484 (1930).

Translation.

THE FOURTH CHAPTER.—Concerning the forming of Good Habits. SECTION 14.—Concerning Vehicles.

It hath been decreed that no student, who is still in the state of a being a ward, shall, within the time of the term, mount up from any aerodrome whatsoever, which is within the distance of twenty thousand paces from Oxford: nor shall he come down on to an aerodrome so situated: unless he be one who is enrolled in the University Cohort of Air-Voyagers.

London Gliding Club

Annual General Meeting.

This was held at Maison Lyons, Shaftesbury Avenue, on Friday, April 30th.

Chairman's Report.—Mr. D. G. Hiscox read his report for the past year, in which he stated that the club had continued to grow and progress as regards membership, flying done, equipment, financial position, and plans for future development.

The membership for the year was 289, resulting in a total of £788 18s. 6d. in subscriptions paid—an increase of 15 per cent. over last year.

A bold step was taken last May with the appointment of Mr. Tim Hervey as Instructor-Manager, although at that time the previous year's balance sheet did not indicate that the additional expense could be met. However, the appointment has proved to have been justified by the club's leap forward, a fact which measures the personal success of Mr. Hervey. The receipts from flying money have increased by 48 per cent. to £445 6s. 6d. The number of certificate tests passed were 33 "A," 27 "B," and 28 "C." The quality of the flying has shown a marked improvement, one indication of which has been the need of the Flying Committee to make bye-laws to establish the rule of the air, and to forbid aerobatics below 2,000 feet. In spite of the clerk of the weather having treated us unkindly during the year, especially at week-ends, the British distance record was broken in July, when Philip Wills flew 104 miles to Pakefield, near Lowestoft, and other pilots made shorter cross-country flights, including three to Hatfield aerodrome.

The camp held in August was successful financially as well as in the flying done and tests passed. For this the club was indebted not only to Mr. Hervey, but to Basil Meads, and to Henry Bolton, the club's ground engineer, who both acted as assistant instructors, and have been made honorary members as a small token of appreciation. Instruction in aero-towing has been arranged for the club by Ronald and Mrs. Price, and a successful B.B.C. broadcast was staged in November.

Two secondary sailplanes have been added to the club fleet, and the number of primaries increased, so that the club now operates five primaries, three secondaries, four sailplanes, and a dual-control two-seater. A new and improved launching winch has been acquired, and the hangar and club house buildings completed. The club has yet to solve the problem of ways and means of carrying out the scheme for more extensive bunkhouse accommodation planned by Mr. Christopher Nicholson, the club architect.

In January the club suffered loss by the resignation of its genial secretary and treasurer, Mr. Hubert Davies. Fortunately the committee were able to arrange for the work to be carried on by a division of the labour, Mr. Hervey undertaking secretarial work and Mr. Arthur Sweet, of Arthur Sweet & Co., Chartered Accountants, agreeing to act as secretary to the company and treasurer to the club.

The balance sheet shows the club to have accumulated assets to a value of nearly £7,000; a substantial amount of these has been purchased out of income. The club has received altogether £3,300 from the government subsidy during the two years it has been available. As compared with the previous year, hangar rentals increased by £104 from £20, and bar profits (gross) by 41 per cent. to £76. On the other hand, camp receipts were down by £150 (there was no competition in the previous year), and the cost of repairs and maintenance have increased by 68 per cent. from £274 to £461. Means of reducing this last item will have to be studied.

By a sad fatality on the road, the club has lost two of its most popular members, Tony Evans and Barbara Goldney. Mr. J. P. T. Evans, the father of Tony, has made it possible for the club to add an extension of the hangar and a workshop to its buildings by paying 30 per cent. of the cost, the amount needed in order to obtain a subsidy—a most generous and magnificent gesture. Mr. and Mrs. Goldney also have expressed a wish to provide a memorial to their daughter, and are giving the club a much-needed office.

Two sailplanes of Hjordis II. type have been ordered for the club's use after the International Competitions; Mr. Evans has again generously offered to provide part of the cost. Altogether, the club can look forward to an interesting and satisfactory year's flying.

After the reading of this report, an election took place to fill five vacancies on the committee, the following being elected (or re-elected): H. E. Bolton, J. S. Fox, C. Nicholson, C. L. Ruffle, P. A. Wills. The remaining members, who do not come up for re-election this year, are: D. G. Hiscox, E. A. S. Barnard, J. P. Dewsbery, H. E. Petre, and S. Humphries. J. R. Ashwell-Cooke, to the great regret of the meeting, announced that he would be unable, for personal reasons, to stand for re-election. It goes without saying that he will continue to take a special interest in the club's welfare, since a large part of the present success of the club is due to the work he has done for it in the past, particularly in times of stress.

Annual Dinner.—The meeting was followed by dinner, at the conclusion of which Captain Lamplugh, the club president, proposed the toast of the London Gliding Club. He said the club had done amazingly well in the past year, and in every way had gone far ahead of what was expected of it a year ago. The real strength of the club was in its practical work, and in its friends, including friends in the Air Ministry, in the Press, and in finance. He paid a special tribute to the work of Mr. Hervey (ovation).

Mr. Derry presented to the club a trophy in the form of a model, both to show his practical interest in the club, and as an example of what one of his firms (Messrs. Bassett Lowke) can do. He recalled the days when he and Mr. Hiscox, in 1913, used to fly models up Regent Street at 7 o'clock at night. He had just made Mr. Hiscox a co-director of his firm.

Mr. J. P. T. (Jack) Evans referred to the forthcoming international competitions, saying that he spent much of his time in Germany, that the Germans were great sportsmen and showed the greatest kindness, and that the British contingent should remember that they represented England and not merely the gliding movement.

Mr. S. Humphries, recounting the club's good friends, mentioned one "good friend" that was not present—our site. He referred to the excellent record of Mr. Hervey, but said he must be backed by the other instructors; also to Mrs. Turvey, our caterer, who was always ready with a smile, however harassed; and to Mr. Walker, the club steward, who reminded him of his former batman (a special compliment).

Mr. P. A. Wills, who (very properly) classed gliding men as "loonies," concluded: "May we be grateful for all the loonies in the movement; if they ever really achieve sanity, we're sunk."

Trophies.—The David Dent Cup, awarded to the club member making the most meritorious flight of the year from the club's ground, was presented to P. A. Wills for his flight to Pakefield on July 5th, 1936, whereby he set up a new British distance record of 104 miles.

The Desoutter Cup was awarded to Captain Heath in recognition of the excellent workmanship put into his home-constructed Grunau Baby.

The Derry Trophy, referred to above, was presented to C. L. Ruffle in recognition of the hard and efficient work done by him in keeping the club's transport section up to standard throughout the year.

Thermals off the Winch.

Sunday, April 25th.—This was an important day in club history, in that quite a number of pilots got lift out of thermals after a winch launch, without any help from the hill. It is not the first time such a thing has been done, but the previous occasion—the "queer soaring" day of January 10th—was one of such unusual conditions that they are unlikely to recur more than once in a blue moon. This time the lift came from just ordinary thermals, such as are worth searching for on any warm sunny day. Prior to this, we believe, not more than one pilot has caught a thermal off the winch on any one day. What the day's doings mean, in effect, is that it is now worth while for a soaring pilot, as soon as he has been promoted from secondaries to sailplanes, to turn up practically as often as he can, without regard to wind direction.

The wind was light, from N.N.E.; that is, blowing parallel to the hill. The nearest Met. station, Upper Heyford, reported (at noon, G.M.T.) wind 10 m.p.h. from N. by E. at surface, 19 to 21 m.p.h. from due north at 2,000 to 5,000 feet inclusive. Small clouds began to form in the morning; they remained thin and scrappy throughout the day, and were very sparsely distributed, singly and in groups. They usually showed the position of the thermals to pilots who got up high, but rarely bore any relation to the thermals near the ground. And their distribution was quite irregular. In the afternoon, Fox found their height to be 4,200 feet.

Hiscox was first to make thermal contact, at about 11 o'clock (Summer Time). After being winched up to about 400 feet, in his Kirby Kite, he picked up feeble lift at one or two feet per second over the club car park and under a cloud. At 1,000 feet he "fell out" of it, and then turned west instead of east, which, he thought afterwards, caused him to lose the lift. He was up 10 or 12 minutes. On his second launch he got nothing, but on



Aero-towing: the "King Kite" is towed up by an "Avro 504" at Fenny Stratford, releases itself under a cumulus cloud, and starts looking for lift.

the third he made thermal contact immediately and drifted over to the other end of the N.W. slope (by the big power cables), where thermals of evidently large cross-section, giving lift at five or six feet per second, continually passed by. Having reached 2,800 feet, he went out over Totternhoe to meet a cloud, but found nothing under it, and landed back at the club ground after 28 minutes in the air.

Murray was next to get thermal lift. He made 10 flights in the FALCON III. two-seater, totalling 43 minutes, but unfortunately there is no record of the length of the individual flights. He never got much above casting-off level, but often seemed able to prolong a flight almost indefinitely at heights between 300 and 100 feet. On one of his earliest, he did a large number of figure 8's over the car park without perceptible loss of height, and many of his landing manœuvres were prolonged by thermal lift over the south end of the club ground.

Fox made a flight of 2 hours 40 minutes in the RHÖNADLER, from 2.10 to 4.50. It was described in last month's SAILPLANE AND GLIDER how he went over Hemel Hempstead, returned to Dunstable, and finally landed at Rickmansworth. During this flight he shared thermals with Rainey and Mrs. Price. Rainey was launched in the Imperial College Club's KIRBY KITE at about three o'clock, stayed up 45 minutes, and landed 14 miles away to the south, reaching 2,000 feet on two occasions. Mrs. Price, launched at about 3.40 in the Desoutter GRUNAU, stayed up 40 minutes and got up to over 3,000 feet; she landed back on the club ground.

The next longest duration was eight minutes by Ruffle, who reached 800 feet in the same machine, while Humphries prolonged a flight in the Slingsby GRUNAU to five minutes by struggling with a thermal over the club house.

It is a matter of interest to work out what proportion of the 44 winch-launched flights were prolonged by thermal lift, but, in the case of those who flew more than once, we have only their total flying time to go by. Most of the flights which were not thus prolonged lasted about three minutes, so it may be assumed that the following also got thermal lift one or more times: Furlong (4 flights, 16 minutes); Bucknell (2 flights, 8½ minutes); Grant (3 flights, 11½ minutes). Baker (3 flights, 8 minutes) records getting up to 700 feet in a thermal, but finding down-draughts at 18 feet per second!

To sum up, therefore, about one-third of the flights were prolonged by thermals; in about half these cases, or one-sixth of the total, the pilot got up to at least double the height at which he had cast off from the winch cable, while in five cases, or one-ninth of the total, heights of 1,000 feet or more were reached.

Professor Brunt, who had come to adjust his cinema-altimeter apparatus on the two-seater, struck a lucky day. He came with Mrs. Brunt, and another visitor was Commander Perrin. The B.G.A. chairman and B.G.A. secretary watching the B.G.A. treasurer going up in a thermal—what times we live in!

We had our first primary crash since last September, and such is the standard of instruction nowadays that this was quite an event. A lady member, having a ground-hop, landed on one wing, cartwheeled, and finished upside down. The machine was little damaged, but not so the lady's trousers. However, although no one present could raise a safety-pin, it was found that a pin-on club badge would serve equally well for temporary repairs.

Saturday, May 1st.—With a light N.E. wind, and a few clouds like those of last Sunday developing in the afternoon, Stephenson was the only pilot to get a thermal. He was up 10 minutes, circling and drifting slowly down-wind, and said he could find no boundary to it. A slight extra breeze was noticed just before he started.

Sunday, May 2nd.—Light wind from north on ground, with clouds similar to last Sunday, though fewer, drifting slowly from east. Nobody could get thermals off the winch.

In the evening Hervey showed us a most entertaining film portraying Australian activities in the early days of gliding. Intrepid pilots, including himself, could be seen soaring to immense heights in open primaries, with the wind evidently blowing half a gale against a steep ridge. Those were the days!

Tuesday, May 4th.—Withall was winched up at 12.45 (Summer Time) into a less-than-soarable W.S.W. wind under a sky almost entirely covered with stratus formed from risen mist. Casting off too far from the hill to get slope lift, he at once got a thermal which carried him up to 1,000 feet, then sank gradually back to earth, the flight having lasted 20 minutes. He said there was lift all over the club ground, and could not find its boundaries.

Wednesday, May 5th.—An excellent soaring day with plenty of thermals and cloud lift. Stephenson got to 4,800 feet, Hervey to 2,900 feet, A. B. Wilkinson 3,500, Dr. Edmunds 2,500, and Murray 2,300. Furlong stopped up five hours—not for the "Silver C" duration, which he has already done, but just for fun.

The next week-end the club was delighted to have a visit from Fräulein Emi von Roretz.

Members who recollected the excellent gliding broadcast given from the club ground last November, listened in on Wednesday to hear the same broadcaster describe how the Coronation Naval Review was all lit up. If the club ever introduces night flying, it is hoped that our friend will again come down and broadcast an account of our activities.

Friday, May 21st.—To-day Rattray achieved the honour of being the first member to make a cross-country flight backwards. He was soaring comfortably in his CAMBRIDGE II. in a W.S.W. wind, getting thermals up to 1,200 feet, when at 3.30 p.m. a "front" blew up from the south. Contrary to rule, it caused the wind to back instead of veer. Rattray had risen in it to 1,700 feet (still being well below the clouds) when he suddenly realised he was being drifted rapidly towards Dunstable. So he turned his nose to the south and dived towards the club ground at 45 m.p.h. air speed. But the club ground still continued to recede into the distance, while the CAMBRIDGE II. moved backwards over the landscape till it came to earth in a field beyond the Totternhoe-Rifleman road, a mile away from the club. The wind up above must have been doing quite 60 m.p.h., though it was nothing like that at ground level, luckily for Rattray's landing.

Ruffle, who was up in it too in the Desoutter GRUNAU, got lift at 10 feet per second in the "front." He also came down backwards, but was sufficiently far up-wind to be able to land in the club ground.

Saturday, May 22nd.—A. Louis Slater, who built our winch, looked in to see how it was getting on. He was surprised to hear that our pilots pull the stick hard back when being winched up. In Derbyshire they keep the stick central, except at the moment of leaving the ground, when it is eased slightly back to lift the rest of the cable into the air and thus eliminate its friction. He claims that they get up quite as high that way.

The KING KITE made its first appearance at Dunstable. So many people were itching to see it fly that it was finally got out just before dark and ground-hopped down the training slope in the rain. It performed rather worse than a well-flown primary, but admittedly it never got up flying speed.

Aero-Towing and Under-Shooting.

Sunday, May 23rd.—Once again Captain Phillips came over with his "Avro" for a day's towing, complete with dog in rear cockpit. He began by towing Wills in the KING KITE, Hiscox in Baker's GRUNAU, and Stephenson in the Grey KITE (one at a time, of course) from the club ground to the Fountains Hotel Aerodrome, 13 miles away at Loughton, near Fenny Stratford, where the rest of the towing was done. Hiscox asked to be towed only part of the way, and was taken to a point east of Leighton Buzzard and left there with another eight miles to go in a N.W. direction, in a wind of over 20 m.p.h. blowing from S.S.W. Pointing cross-wind, he actually overtook a passenger train on the L.M.S. main line, got a little thermal lift over the village of Hammond, and arrived over the aerodrome with 700 feet to spare.

Other sailplanes arrived by road: the Slingsby GRUNAU, RHÖNSPERBER and CAMBRIDGE II. from Dunstable, CAMBRIDGE I. from Cambridge, and HJORDIS I. from Derbyshire, with R. G. Robertson and G. O. Smith. Slingsby and Buxton also arrived from the north.

Other pilots to be aero-towed were: Ruffle, Richardson, Rattray, Furlong, Himmelreich, Simpson, Lingford, Turner, Lacey, Humphries, Greig, Gardiner, Thomas, Pringle, Ivanoff, Nicholson, W. and H. Adcock, Rainey, and Mrs. Price.

There was much thick cumulus about, sometimes in streets, but few pilots made much use of cloud lift, and the average duration, apart from tows to and from Dunstable, was 9¾ minutes.

As already stated, the towing was done from the aerodrome. It was also intended that each pilot should put the machine down again in the aerodrome ready for the next tow. Instead, what happened? Whenever one looked around to see what was going on, this was the typical scene that met one's gaze: one sailplane being towed up; one sailplane, recently released, finding its way down; and one sailplane being lifted over (or extricated from) the hedge after landing in the wrong field—or else its remains being put away in a trailer, also in the wrong field. It would be an exaggeration to say, as some spectators did afterwards, that nobody at all managed to land in the aerodrome (which is quite as big as the club's own ground). Out of 30 aero-towed flights, including five cross-country, 20¾ both started and ended on the aerodrome. The odd half was the Slingsby GRUNAU, which touched down prematurely and then charged the hedge, managing to get half way through before coming to rest. Slingsby examined his product and announced that it was as little harmed as a Veritas mantle, and it was actually aero-towed home the end of the day, with Rainey on board.

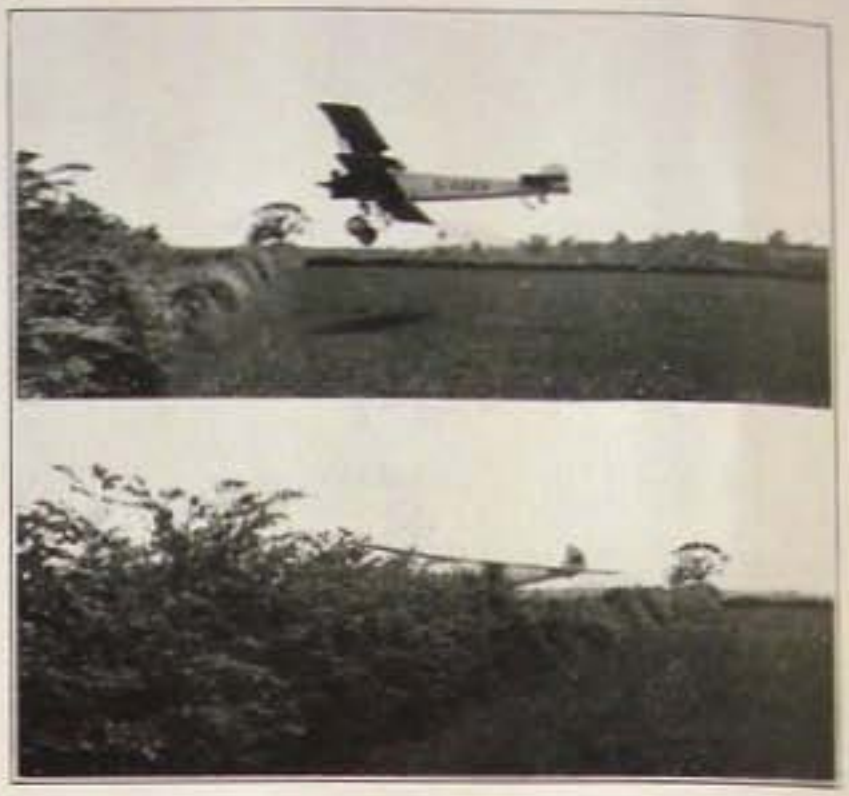
Other undershootings were: the other GRUNAU (damaged), HJORDIS I. (stalled and broke its nose), CAMBRIDGE I. and KING KITE (both landed intact). The last was also aero-towed home, with Mrs. Price.

Statistics: 30 aero-towed flights in 6¼ hours; gross takings, £15 15s. 3d. Of this, 10s. per flight is paid over to the provider of the aeroplane. Pilots are charged 10s. plus ordinary flying fees, i.e., usually 13s. per flight. Petrol for the aeroplane costs 16s. 3d. (not paid by club). The aerodrome attendant gets 5s. This financial information may be useful to others who are thinking of organising aero-towing.

Monday, May 24th.—Rattray, in the CAMBRIDGE II., starting at noon in a S.S.W. wind, flew for 2 hours 55 minutes, nearly all in thermals, with occasional slight help from a light slope-wind up the Bowl. He reached 1,300 feet in many of them. He says that when he gets into a thermal, he hears a distinct sizzling noise, but cannot make out where it comes from. Is it air oozing out of the wings as from a variometer bottle? Or is it purely subjective? Or does the thermal itself make the noise? Ludwig Hofmann, writing in Hirth's *Die Hohe Schule des Segelfluges* (3rd edn., p. 75-76), says that: "Upon flying into a thermal bubble the machine takes on a different tone—the noise of flight at once becomes 'hoarse.'" Hirth himself, on March 29th, 1933, soared for 48 minutes in thermals without any instruments, entirely by the change of sound in his ears. (See THE SAILPLANE, May 12th, 1933, p. 165.)

Tuesday, May 25th.—Rattray, observing the wind and sky to be precisely the same as yesterday, and having to lecture at Cambridge on West African languages at 5 p.m., put his lecture notes and books on board his CAMBRIDGE II. and was winched up at about noon. But in 2¼ minutes he was down again, so had to go by road after all. Still, it was worth trying.

Sunday, May 29th.—On the occasion of the opening of new buildings, Captain Phillips and his towing "Avro" turned up again, so that our guests would have something worth seeing



Captain Phillips, after towing each sailplane up on May 23rd at Fenny Stratford, would brush his under-carriage lightly through the hedge-top as he came in to land. Were the sailplanes trying to emulate his feat? If so, they were not all as successful as the "Cambridge II," shown in the lower picture.

even if the wind failed to obliged. As it happened, there was just enough soaring wind to keep up really high performance machines like the ADLER and SPERBER, and occasionally a GRUNAU. There was also winch-launching and auto-towed ground-hopping, so that the full range of our activities was on view, while the public made congestion worse congested by swarming all over the ground.

Among those who had their first aero-tows was Mrs. Baker, Peter Davis, and A. B. Wilkinson. There was cloud lift about, and Vigers in his RHÖNADLER rose to 2,000 feet from a cast-off at 1,200. Fox, in the same machine, found the thermals weak, and rose at only 3 feet per second to 1,800 feet.

Twenty-one aero-tows were made from the club ground, the "Avro" just managing to stagger over the power cables each time. After tea it towed Hiscox in the KING KITE all the way to Heston, so that members of the international team could conveniently fly the machine there during the following week.

Opening of New Buildings.

On May 29th a cocktail party at 12.30 was followed by the official opening of the new extensions.

Mr. Jack Evans, who has been responsible for the non-subsidised portion of the expense of the new hangar extension and workshop to be called the "Evans Hangar and Workshop," unveiled the inscription over the door and dedicated the building to the memory of his son, Tony Evans, who had been a member of the club, and whose interests had been so much centred in the club's activities. He similarly dedicated the new clock which is installed on the outer wall of the club house, and has been presented by Tony Evans's relatives and friends.

The new club office and store room, given by Mr. and Mrs. Goldney, in memory of Barbara Goldney, who used to give her uncle, Mr. Hervey, so much assistance in his work, was then formally opened by Miss Masters, who found Hervey's daughter inside with a bouquet ready.

Captain Lamplugh, who presided over the ceremony, expressed the club's gratitude for these much-needed extensions. He referred also to Lord Wakefield's gift of £500 to the expenses of the forthcoming international competitions, "most of which will be spent in paying the extortionate bills for insurance."

At the subsequent luncheon party Hiscox gave a list of the club's further "wants," which were: a dormey house (or rather, two—male and female), a fence to keep the public out (particularly needed that day), the power cables burying, the car park finishing, and "something to put on the shelves of the store room."

Among the day's welcome visitors were Herr Schumacher and his wife, who is a daughter of Oskar Ursinus, "Father of Gliding."

Summary of Flying.

Date		Ground-hops.	Winch launches.	Hilltop launches.	Flying Time h.	m.	s.
April 27, Tuesday ...	...	—	3	5	—	55	28
May 1, Saturday ...	...	104	12	—	—	34	0
,, 2, Sunday ...	...	114	39	—	1	41	32
May 4, Tuesday ...	...	32	2	—	2	45	0
,, 5, Wednesday	...	—	13	2	21	28	0
,, 7, Friday ...	...	—	1	5	1	6	0
,, 8, Saturday ...	...	66	—	—	—	—	—
May 10, Monday ...	...	—		9	—	13	22
,, 12, Wednesday	...	58	12	—	—	28	5
,, 14, Friday ...	...	36	6	—	—	14	30
,, 15, Saturday ...	...	132	3	—	—	6	0
,, 16, Sunday ...	...	188	18	20	1	7	3
May 17, Monday ...	...	172	42	—	1	39	0
,, 18, Tuesday ...	...	49	14	8	—	42	35
,, 19, Wednesday	...	56	—	—	—	—	—
,, 20, Thursday ...	...	108	—	—	—	—	—
,, 21, Friday ...	...	33	15		6	18	35
,, 22, Saturday ...	...	3	—	—	—	—	—
,, 23, Sunday ...	...	119	—	3	—	1	41
,, ,, ,,	Aero-towed launches			30	5	51	0
May 24, Monday ...	...	32	7		3	3	48
,, 25, Tuesday ...	...	—	1	—	—	2	30
,, 27, Thursday ...	...	—	1	—	1	55	0
,, 29, Saturday ...	...	42	4	20	1	8	42
,, 30, Sunday ...	...	29	28	54	9	31	0
,, ,, ,,	Aero-towed launches			21	8	27	0

Certificate Flights.

April 27th.—Lewis, "B."
May 16th.—D. Smith, "A."
May 19th.—Wright, "A"; Inglesby, "A"; Verity, "A."
May 21st.—Hynard, "A"; Howie, "A."
May 23rd.—Koch, "A"; Gayner, "A"; Winstone, "A."
May 29th.—Rogers, "A"; Logan, "A."
May 30th.—Ambrose, "A"; Royds, "B"; Inglesby, "B"; White, "B"; Miss Searle, "B."

Totals.

Week ending	*Launches*	*Flying Time*	*Certificates*
May 2nd	277	3 hrs. 11 mins	1
May 9th	121	25 hrs. 19 mins	–
May 16th	482	2 hrs. 9 mins	1
May 23rd	652	14 hrs. 33 mins	8
May 30th	236	24 hrs. 8 mins	7

Totals since January 1st: 4,316 launches, 372 hrs. 36 mins. flying time.

Instruction Camp.

There were 10 applications for the ten-day course which started on May 14th; three were club members and the rest non-members. Two club members and one non-member had had some previous ground-hops; the remainder were *ab initios*. The weather was very unfortunate from the point of view of certificates, as the wind blew on to the hill only on two occasions during the course; the first, three days after the beginning, which was too early for the majority to take advantage of it, and the second when conditions were rough for taking "A's."

Nevertheless, of the 10 members, eight passed the "A" test and three "legs" towards the "B"; one proved hopeless, and one was just showing signs of reaching "A" stage at the end of the course. All who took "A's" should easily have taken "B's" if there had been the opportunity. Three "A's" were taken with the wind blowing down the hill, and one more or less by moonlight. There was only one case of damage to a machine, which was soon in service again.

During the camp 662 launches were made, 13 being from the hill-top. The following gained "A" certificates: Wright, Inglesby, Verity, Winstone, Hynard, Koch, Howie, Gayner. The first three also gained legs towards a "B."

Further Camps.—Instruction courses, open to non-members, will be held from July 6th to 15th, August 14th to 28th, and September 7th to 16th. (The June course is cancelled.)

The August course will be an Anglo-German Camp, and the September course, a Public Schools camp for those of 16 years and over.

Fees, which are inclusive of full board and lodging, flying instruction with third party insurance, and use of the club house, are eight guineas, plus one guinea special club membership for the July and September courses, and 11 guineas, plus one guinea special membership for the 14-day course in August. Further particulars from the Secretary, London Gliding Club, Dunstable, Beds.

Club members attending these courses pay ordinary flying fees daily, but those wanting accommodation must book one month in advance; messing costs 50s. for 10 days; 70s. for 14 days.

General News.—Two of our members, Noble and Keeble, have left us to take up jobs in other clubs. Each is to be ground engineer plus resident instructor-manager: Keeble at the Midland Gliding Club and Noble at the Derbyshire and Lancashire Gliding Club. Our (and Dart Aircraft's) loss is others' gain.

Another member to leave us is Dr. Richardson, soil research specialist at the Rothamsted Agricultural Station, and, in his spare time, pilot and half owner of the WHITE WREN. He is off to China next month to teach the Chinese what they don't know about their soil; also, it is to be hoped, when he gets settled down, what they don't know about gliding. Richardson has been a member of the club since 1930, and will certainly be missed, but will no doubt return some day to finish off his "Silver C"—or will he do that in China?

Cornwall Gliding Club

April 11th.—After waiting all last year for a south wind, we got one the first day of this. Although no member had flown since November 1st, the quality of the flying in some cases seemed to have improved. Ratcliffe, Hoskin, and Pearce in particular put up good flights. The KEEBLING and "Oscar," the Austin tow car, have been considerably overhauled during the winter.

April 18th.—We had to tow right over to the north slope so there was only time for six hops and three slides, but it was worth the trouble.

April 25th.—Another south wind. James did 41 seconds and Graham 35. Hoskin just missed his 30 by three seconds.

May 2nd.—The day was almost entirely given over to the *ab initios*, who performed excellently, far better than we 30-second men in our young days. Pearce, in particular, made a good showing.

May 16th.—Wind north. Out of 12 flights the most spectacular was that of our president, Mr. J. R. Rathbone, M.P. He made a very steep bank for a right-angle turn, possibly a result of power flying, it being only his second flight in the KEEBLING. However, it was a very nice flight of just about 30 seconds.

May 30th.—Using a straight auto-launch instead of our usual method with a pulley, we had a 41 (seconds) on the short northern slope with an "S" turn. Graham, Ratcliffe, and Pearce all did turns, but Williams has now become a speed fiend and so didn't get enough height.

Dorset Gliding Club

Sunday, April 25th.—A gentle N. by E. wind was ideal for training. After dinner, for the benefit of the "B" pilots, the nacelle was fetched round. When the five separate parts of this are on the ground waiting to be put on, it looks rather "a mess' and (probably) quite amused Mr. Henderson (designer of the "Hendy Heck," etc.), who had been watching the proceedings and had his ciné camera ready for action. Although we told him of the effect of the nacelle when fitted, he was quite surprised when this was demonstrated later.

Manning had his first flight from the top (he had taken his "A" nearly two years ago and had left the club for some time). Jackson followed and got his "A" with a good 34 seconds. Aldridge, having come all the way from London, had two flights. Lansdown, with a flight of nearly a minute, showed up admirably the enhanced performance due to the nacelle.

Total number of launches for the week-end was over 60, plus one "A." We hope Mr. Henderson's efforts with the ciné camera will be as good as he expects, and we may have a chance of learning something from seeing ourselves (fly) as others see us!

List of British Gliding Clubs and their Secretaries

This list is intended as a guide to those who wish to join a gliding club, or to see gliders and sailplanes in action. Not all the clubs mentioned are active, though it is hoped eventually to confine the list to active clubs. The list will be published as often as space permits, and club secretaries will oblige by helping to keep the particulars up-to-date.

England.

BEACON HILL (Essex).—W. P. Harris, 22, Hamlet Road, Southend, Essex. Primary training ground at Canewdon, Essex. Workshop at Southend. Subscription, 10s. 6d. p.a.

BILLINGHAM.—J. Tunstall, Nth. Mt. Pleasant Street, Stockton-on-Tees. Primary training. Subscription, £1 p.a. (10s. for those under 21).

BRYANSTON SCHOOL.—F. W. Armitage, Bryanston School, Blandford, Dorset. Two-seater sailplane under construction. Subscription, 3s. 6d.

CAMBRIDGE UNIVERSITY.—J. W. S. Pringle and P. M. Thomas. Club rooms at 1, Benet Street, Cambridge. Flying ground at Caxton Gibbett (Tel.: Caxton 39); winch launching. Subscription, 3 guineas p.a. Flying charges, per launch: 8d. in primaries, 1s. 4d. in sailplanes. Limited number of non-University members admitted.

CHANNEL.—F. G. Whitnall, 16, High Street, Cheriton, Folkestone. Auto-towing at Hawkinge Air Station; soaring at Arpinge, 2 miles N.W. of Folkestone. Hangar at Arpinge.

CORNWALL.—J. W. Graham, Red House, Tywardreath. Flying ground at Rosenannon Downs. Primary training; soaring possible.

COTSWOLD.—J. D. Pether, Culver's Close, Burford, Oxon. Primary training at Kencott, or at Cassey Compton (near Northleach).

DERBYSHIRE AND LANCASHIRE.—C. Kaye, 63, Clarkhouse Road, Sheffield. (Tel.: 62463.) Primary training and soaring. Headquarters at Camphill, Great Hucklow, Derbyshire (between Buxton and Sheffield), adjoining flying grounds at Bradwell Edge and Eyam Edge. Clubhouse (Tel.: Tideswell 207) and hangar. Subscription, £2 17s. 6d. p.a.; non-flying, £1 1s. (both include 5s. subscription to Royal Aeronautical Society, Manchester Branch); no entrance fee. Flying charges: from 6d. per flight; soaring flights from 2s. 6d.

DEVON.—S. G. Tolman, Journal Office, Exmouth. (Tel.: 76.)

DORSET.—L. A. Lansdown, The Portman Arms Hotel, East Chinnock, Yeovil, Somerset. (Tel.: West Coker 01 Y4). Primary training and soaring at Maiden Newton; soaring also at Kimmeridge, Isle of Purbeck.

EAST GRINSTEAD.—G. J. Smith, "Tolskity," Sackville Lane, East Grinstead, Sussex.

ESSEX.—W. Webster, 113, Coombes Road, Dagenham. Primary training.

FURNESS.—J. S. Redshaw, 18, Fairfield Lane, Barrow-in-Furness, Lancs. (Tel.: 803). Training sites at Hawcoat, Birkrigg and Gleaston. Soaring sites at Moorside (near Ireleth) and Bootle Fell, Cumb. Hangar at Moorside. Subscription, £2 p.a. and flying fees.

HARROGATE.—E. T. W. Addyman, The White House, Starbeck, Harrogate.

HEREFORD.—See Midland Gliding Club.

HULL.—R. E. Havercroft, 216, Park Avenue, Hull. Flying ground, Hedon aerodrome (auto-towing).

IMPERIAL COLLEGE.—L. S. Holt, Imperial College of Science, South Kensington, S.W.7. Members use London Gliding Club's machines and flying ground at Dunstable Downs; also a sailplane for club's exclusive use.

KENT.—Miss R. H. Sinclair, Lady Place, Sutton Courtenay, Berks. (Tel.: Sutton Courtenay 46.) Primary training ground at Lenham, near Maidstone, Kent.

LONDON.—Tring Road, Dunstable, Beds. (Tel.: Dunstable 419.) Flying ground, Dunstable Downs (1¼ miles S.W. of Dunstable). Primary training and soaring. Clubhouse and hangar; sleeping accommodation; 13 gliders and sailplanes for members' use. Subscription, 3 guineas p.a. (non-flying, 1 guinea); entrance fee, 1 guinea; flying charges, from 3s. per day. Resident full-time instructor; flying on Sundays and every week-day except Thursday.

MIDLAND.—F. L. Felton, 131, Edmund Street, Birmingham. (Tel.: Central 8181.) Primary training grounds at Handsworth (Vernon Avenue), Northfields and Hereford. Soaring site at Long Mynd, 3 miles W.S.W. of Church Stretton, Salop. Clubhouse and hangars; 10 gliders and sailplanes for members' use. Subscription, 3 guineas p.a. (16s. 6d. junior membership); entrance fee, 1 guinea; flying charges, 3s. per week-end for primary or secondary training; 6s. per hour for soaring.

NEWCASTLE.—A. P. Miller, 25, Holme Avenue, Walkerville, Newcastle-on-Tyne, 6. (Tel.: Wallsend 63320.) Soaring sites at Chillingham. Auto-towing at Cramlington Aerodrome. Workshop in Newcastle.

NORFOLK.—"Ivy Cottage," North Walsham, Norfolk. Primary training at Skeyton, also at Mundesley (soaring possible).

NOTTINGHAM.—R. V. Sewerbutts, 426, Woodborough Road, Nottingham.

PENRITH AND DISTRICT.—F. E. Kieser, Princes Street, Penrith.

PORTSMOUTH AND SOUTH HANTS.—R. E. Clear, York Cottage, London Road, Purbrook, Hants. Flying ground: Portsdown Hill.

PRESTON AND DISTRICT.—L. E. Falla, "Lendor," Lawrence Road, Penwortham, Preston. (Tel.: Preston 2301.)

ROCHDALE.—F. Hodgkinson, 114, Higher Birches, Whitworth, Lancs. Primary training at Shuttleworth; hangar. Subscription, £2 p.a.

SHROPSHIRE.—G. B. Muir, "Ireland," Halford, Craven Arms, Salop.

SOUTHDOWNS.—A. York Bramble, 7a, First Avenue, Hove 3, Sussex. (Tel. Hove 4335.) Primary training and soaring grounds at Devil's Dyke, Brighton. Clubhouse and hangar, ¼ mile S.S.W. of Devil's Dyke Station.

STAFFORD (Gliding Section of Stafford Aero Club).—J. H. Simpson, 38, Newport Road, Stafford. (Tel.: 138). Primary training; two gliders.

STOKE-ON-TRENT.—H. N. W. Goss, 36, Crewe Road, Alsager, Cheshire.

TEES-SIDE.—H. P. Dean, 11, Redwing Lane, Norton-on-Tees, Co. Durham.

WORKINGTON AND WEST CUMBERLAND.—C. D. Muntz, "Woodland," Ellerbeck Lane, Workington, Cumberland. Primary training ground at "The Hay," Cockermouth.

YORKSHIRE.—H. T. Blakeston, Spellowgate, Driffield, Yorks. Primary training and soaring. Flying ground, Sutton Bank, between Thirsk and Helmsley. Clubhouse and hangar. Subscription, 3 guineas p.a. (non-flying, 1 guinea); entrance fee, 1 guinea; flying charges, from 3s. per day. Flying on Sundays and every week-day except Monday.

Scotland.

ELGIN.—D. M. McRae, Park House, South Street, Elgin.

INVERNESS.—F. Oliver, 13, Leys Drive, Inverness.

PERTH.—R. Mackelvie, View Cottage, Union Road, Scone, Perthshire.

SCOTTISH GLIDING UNION.—J. W. Gardner, Journal Office, Alloa.

Northern Ireland.

ULSTER.—N. P. Metcalfe, *c/o* Ulster Spinning Co., Ltd., Belfast. Flying centre and hangar at Downhill, Magilligan Strand, Co. Londonderry. Auto-towing and soaring.

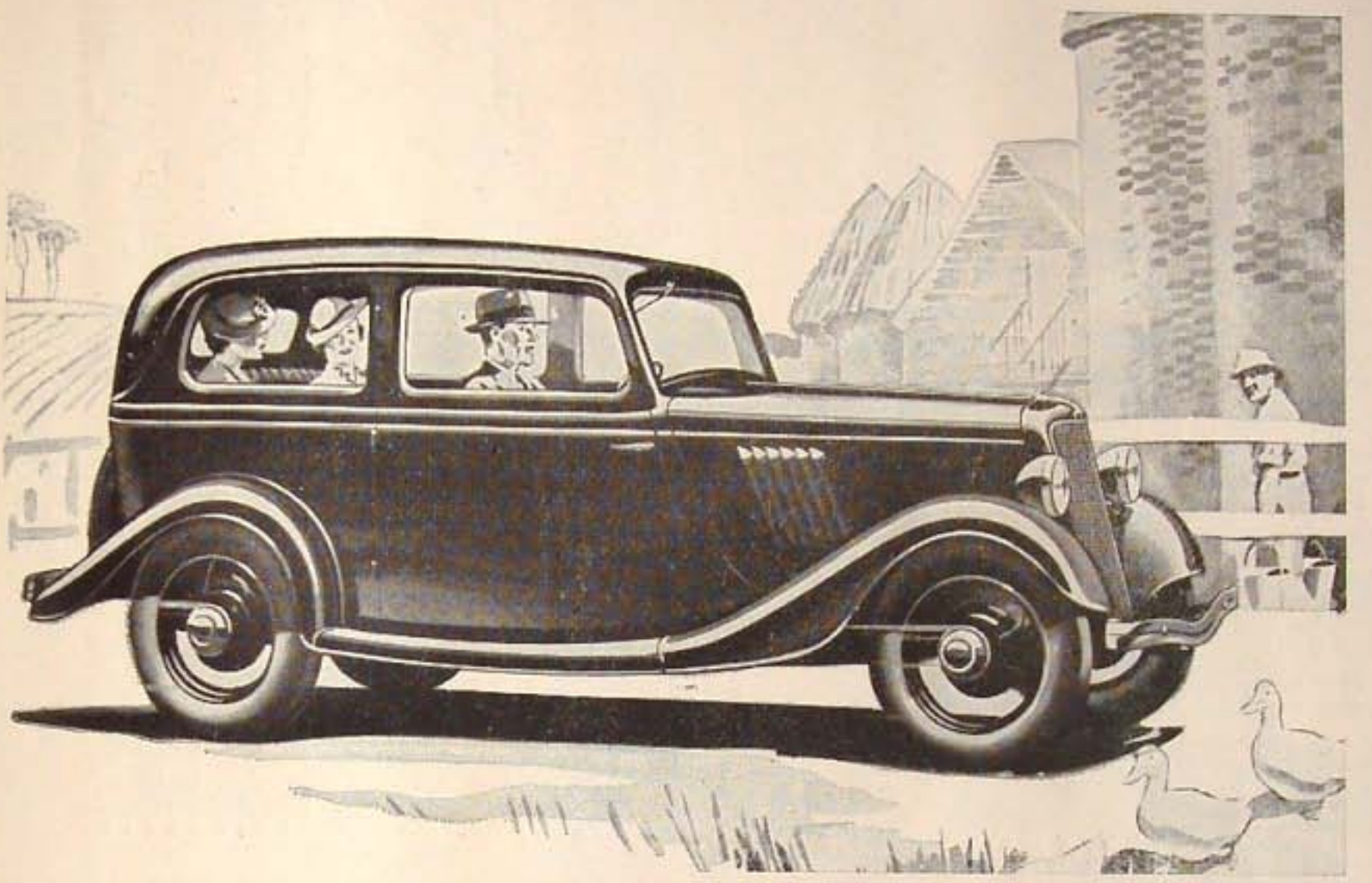
Channel Islands.

JERSEY.—A. J. Scriven, "Alcala," Samares, Jersey. Primary training and soaring at Les Landes, at north end of St. Ouen's Bay. Subscription, £3 p.a. Flying on Sundays and Thursdays.

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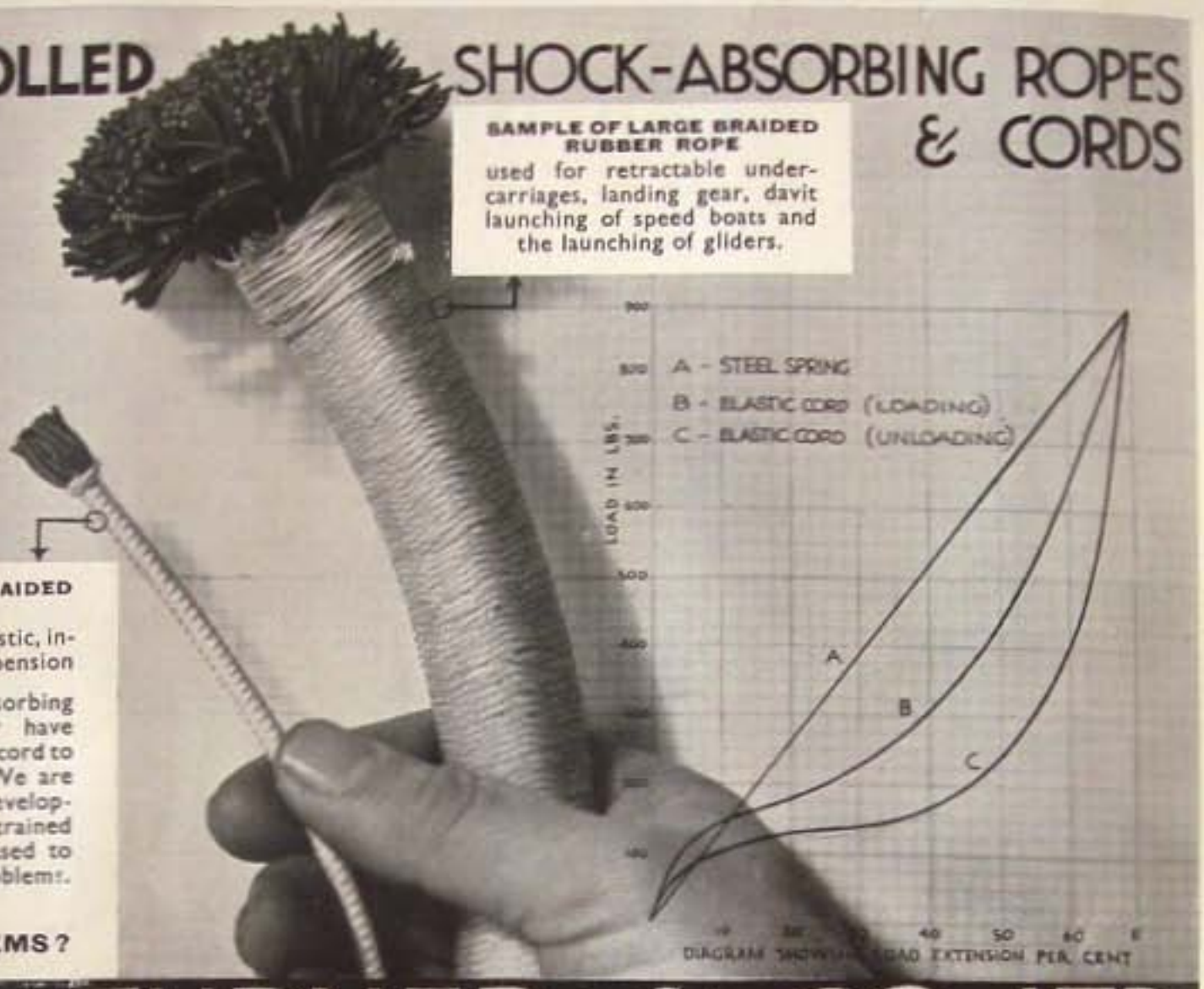
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