

carrying nine passengers, including Mme. Pierre Lebaudy, Prince Murat, and M. Paul Lebaudy.

The capacity of the envelope is 4,000 cubic metres, and it is 63 metres in length. The motor is of 135-h.p., and this it is hoped will enable the vessel to attain a speed of 33 miles an hour under normal conditions. The headquarters of the "Liberté" will be at the garrison of Belfort.



## BALLOONING AND ITS EXCITEMENTS.

To many of the uninitiated, ballooning appeals simply as a pastime of floating through the air, and coming to earth when the sustaining gas is more or less exhausted. That there is something beyond this, a variety of incident that makes the sport far from as tame as is generally thought, may be gathered from a very interesting account of a couple of ascents which the Hon. Mrs. Assheton Harbord has sent us. Mrs. Harbord's story is as follows:—

"On Saturday, August 7th, at 4.20 p.m., my silk balloon, 'Mercury' made an ascent, starting from the balloon ground of Short Brothers, at Battersea. Mr. C. F. Pollock was pilot, and Mr. Hubert Adderley and myself were passengers.

"The 'Mercury,' which has a capacity of 32,000 cubic ft., was equipped with her usual anchor, trail-rope, &c., and we took seven 50-lb. bags of ballast. A wind from N.N.E. took us through Surrey towards Cranleigh, where we made a temporary descent, left our anchor, and took in two bags of ballast.

"Three miles further on we again descended, got rid of half of the trail-rope, our empty sand bags, and took in two more bags.

"Going up again we proceeded to trail for some little distance, and in the dusk the rope got entangled in the boughs of a tree, where we were held captive for several minutes. We were eventually liberated by a man who climbed up the tree and cleverly managed in the growing darkness to untangle the trail-rope.

"At 9 p.m. we again descended at Mill Farm, near Lurgashall, where we secured the balloon for the night between a shed and a wagon, filling the car with bricks and large logs of wood, amply sufficient to hold her in safety.

"We were received by Mr. Shipway, who showed us the greatest hospitality, and put us up very comfortably until the following morning, when, after an early breakfast, we again ascended in the 'Mercury' at 8.10 a.m., but were unfortunately obliged to leave Mr. Adderley behind, as the balloon, owing to loss of gas, would only lift the weight of Mr. Pollock and myself, together with 1½ bags of ballast.

"We made a gradual but steady rise until our aneroid, whose circular dial only registers to 12,000 ft., had made a complete revolution, and indicated 3,600 ft. beyond this altitude, our true height at this moment, therefore, being 15,600 ft., when something went wrong with the mechanism of the instrument, and it burst.

"At this juncture the balloon lost her equilibrium, and we commenced to descend, Mr. Pollock utilising the very limited supply of ballast with consummate skill, and bringing us down safely at

### "Morning Post" Airship.

WE learn that the envelope of the first dirigible airship ordered for England out of the *Morning Post* Fund, and now being built by Messrs. Lebaudy Frères, will be constructed of Hutchinson balloon cloth, which has satisfactorily passed some very severe Government tests in France.

10.30 a.m. at Kilmeston, 4 miles from Alresford, in Hampshire. During the descent we threw out our empty bags as well as the ballast, and though we fell from our extreme height to the ground in the space of ten minutes, the landing was quite a gentle one. Considering how fast we must have dropped, we suffered very little inconvenience, and the temporary sensation of deafness soon passed off.

"Our experience, I think, goes to prove conclusively that a long distance race, with a temporary descent of several hours, is not feasible for so small a balloon as the 'Mercury,' unless the pilot was unaccompanied by passengers, and able to carry proportionately more ballast, with the further possibility of obtaining a fresh supply.

"I believe I am also right in saying that our altitude of 15,600 ft. is the greatest which has ever been attained by a balloon of only 35,000 cubic ft. capacity.

"On August 9th I was discussing with Mr. John Dunville the balloon trips recently accomplished by Messrs. A. M. Singer and C. F. Pollock, who, it will be remembered, made the journey from Cowes to Rowlands Castle one day recently, and returned from Southampton to the Isle of Wight the following day. We thought that it would be extremely interesting to attempt a journey from London to the Isle of Wight, and as the wind seemed to be in a fairly favourable direction for carrying out the project, my 60,000 cubic ft. balloon 'Valkyrie' was filled at Battersea the same evening, and we stood by, ready to make a start should the conditions permit. We were somewhat disappointed in this respect, but by 5 a.m. the wind was far more favourable, and at 5.5 we ascended, Mr. Dunville piloting, and Mr. Oswald Short coming on board as the third passenger.

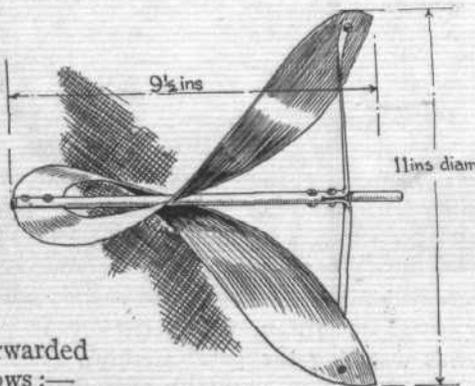
"The wind was approximately N.E., and we proceeded in the direction of Guildford and the Devil's Punch Bowl, attaining our greatest altitude of 5,000 ft. as we passed over Hindhead. We left the English coast about 3 miles to the west of Gosport, and crossed the Solent, trailing through the water most of the time, eventually descending in a field near the Naval Cadets' bathing stage at Osborn. The 5-mile passage over the water occupied no less than 44 mins., and during this time we expended four bags of ballast. The air currents were extremely shifty, varying between N.E. and N.W., which entailed a lot of clever manoeuvring on the part of Mr. Dunville, and I was immensely struck with the very skilful manner in which he handled our craft.

"This is the first occasion, to the best of my knowledge, that any member of the Aero Club, at all events, has made this crossing to the Isle of Wight starting from London, and I thought, therefore, that a brief description of our trip might prove of interest to the readers of FLIGHT."



### Turner and Cochrane Propeller Test.

THE propeller to which Mr. L. Turner referred in his letter appearing in our correspondence of August 21st is illustrated here-with, and was recently submitted to trial on Mr. Cochrane's apparatus, the respective inventors having agreed to a private experiment. The results, which Mr. Cochrane has forwarded to us, are as follows:—



Cochrane propeller, 14½ ins. diam., thrust at 1,580 r.p.m. = 32 ozs.

Turner propeller, 11 ins. diam., thrust at 1,750 r.p.m. = 14½ ozs.

### An Aerodrome Wanted.

ALTHOUGH the Aero Club of France have had under consideration a lot of projects for their aerodrome, none quite fulfil the conditions laid down by the Committee, which have now been published. They are as follows:—

- (1) Minimum surface, 120 hectares (practically 300 acres) with a smooth plot for starting and landing.
- (2) Maximum distance from railway station, 2 kiloms.
- (3) Maximum distance from Paris, 40 kiloms. by road, and half an hour's journey by train.
- (4) Maximum rent, 175 francs per hectare (about £2 16s. per acre).