

AERO CLUB OF THE UNITED KINGDOM.

OFFICIAL NOTICES TO MEMBERS.

Gordon-Bennett Aeronautical Race, 1909.

The Gordon-Bennett Cup having been awarded to the Swiss Aero Club, the race will take place at Zurich in the autumn of this year, and the exact date will be announced later.

In order to comply with the rules, it is necessary, if the Aero Club of the United Kingdom desire to contest the Cup, that the challenge should be sent in before March 15th, 1909.

The Committee of the Aero Club of the United Kingdom will select the three competitors to represent the Club, and intending candidates are requested to notify the Secretary on or before March 1st, 1909, of their willingness to compete, if chosen. Applications must be accompanied by a cheque for £20, the entry fee, which amount will be returned should the competitor not be selected.

Candidates must be members of the Aero Club of the United Kingdom, and also hold the Club Aeronauts Certificate, or must undertake to obtain such Certificate on or before April 30th, 1909.

Lecture by M. Robert Esnault-Pelterie.

M. Robert Esnault-Pelterie delivered a very interesting lecture on "Aviation," with cinematograph illustrations, to the members of the Aero Club and the Royal Automobile Club on Tuesday last. There was a very large attendance of members of both clubs, and a report of the lecture will be found in a separate article in this Journal.

London Balloon Company.

The Committee of the Aero Club have placed at the disposal of the London Balloon Company, Royal Engineers, their aerodynamical apparatus, presented to the Club by Mr. P. Y. Alexander. The apparatus has been removed to their headquarters where the members will carry on their experiments. Messrs. Short Brothers, the official aeronautical engineers to the Aero Club, have also lent them a balloon, and Mr. Frank McClean has supplied them with a motor.

H. PERRIN,
Secretary.

The Aero Club of the United Kingdom,
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RUBBER PROOFED OR VARNISHED BALLOON MATERIAL?

By PAUL BRODTMAN.

THE winning of the "Blue Ribbon" of aeronautics, viz., the Gordon-Bennett Balloon Race, which took place on October 21st, 1907, at St. Louis, and also the first prizes won in the races at Mannheim, Liege, and Brussels by balloons constructed of Continental rubber proofed balloon material, invite comparison between balloons made of proofed material and varnished silk or cotton.

The varnishing of the latter material is effected with oil of linseed, which is liable (through the oxygen in the air) to become resinous, and in the course of time forms a hard mass. The length of time required for this varnishing process also depends upon the temperature and moisture in the air.

Should an ascent be made before the envelope is thoroughly dry, great care must be exercised in packing up the balloon after flight; the balloon cannot be packed up in the warm sunshine, as the rays have an injurious effect upon the varnish, making it soft and sticky. The only method of packing up varnished balloons is by taking same into a shady place for cooling, or waiting until after sunset, which in most cases causes great inconvenience and waste of time.

Another disadvantage of newly varnished balloons is that they are liable to spontaneous combustion if packed for a period of more than 20 to 30 hours. To obviate this, a quantity of about 45 lbs. of French chalk is applied to the envelope; in wet weather this treatment has to be repeated, and is also necessary to protect it against any moisture or mist.

As the varnishing process diminishes the elasticity of the material, the balloon must not be touched by hand before same is perfectly dry.

The folding of the envelope after it has been deflated must also be done very carefully, as the slightest touch from a root, stone, or other sharp obstacle on the ground is liable to damage it.

Consequently, it will be seen that the greatest care must be exercised in the handling of such material. Balloons of this nature belonging to members of the Paris Aero Club are stored at the works of the builders, to ensure treatment by expert hands and proper re-varnishing when necessary.

It is a recognised fact that only 25 to 30 ascents can be made with a varnished balloon.

Quite different is the rubber proofed balloon material manufactured by the Continental Co. In this material a layer of rubber is placed between two layers of "Percal," rendering same unsurpassed for its gas-retaining qualities. One of the main factors of "vulcanized rubber" is this quality combined with elasticity.

Apart from the natural depreciation in the course of time, envelopes of this material do not, at any time, require re-proofing, whilst no special precautions are necessary for their treatment. When wet, they can simply be placed out to dry, or even if packed up in a wet condition, the material would not be affected.

There are no set rules for packing up after a landing has been effected, as this can be accomplished in the hottest weather and even if the material is wet. The superiority of such balloons is manifest, and they are the only ones that can be really relied upon for military service.

Although the initial cost is greater, this is easily overcome, as these balloons work out cheaper in the long run, owing to their being able to make at least 60 to 100 ascents, besides having additional advantages in the way of greater reliability and the facility with which they may be handled.

Another of the many advantages is that rubber balloons do not require any renovation; thus the upkeep is reduced to a minimum, whilst balloons of a varnished character require to be constantly looked after and repaired by experts, making the upkeep an expensive