

mobile boat, *La Rapière*, along the water, and at a given signal, when a sufficient speed had been attained and a good direction for the wind secured, the *aéroplane* was loosened, and with M. Voisin on board rose to a height of about twelve yards. The cord, however, was not cut, and the machine was drawn back on to the water. A second experiment was about to be made—this time with the *aéroplane* at liberty—but before the cord was cut or the flying machine had risen in the air, one of the watertight compartments which enabled it to float got broken in, with the result that the unfortunate *aéroplane* went to the bottom of the river.

The Santos Dumont No. XIV.—

No one can reproach M. Santos Dumont with being self-satisfied with his aerial undertakings. The fact that he has now reached No. XIV. airship is a proof that he has not been contented with each airship he has in turn developed, and is determined to try a variety of form and arrangement. The *New York Herald* recently pointed out that in the No. XIV. the Brazilian *aéronaut* has directed his efforts towards obtaining the greatest possible speed. The airship has a length of 41 mètres, and is inflated with 190 mètres of pure hydrogen. The motive force is furnished by a Pengot machine of 14 horse-power, with a weight of 27 kilogrammes.

The Hélicoptère.—Experiments have recently been made in the grounds of the *Aéro Club* at St. Cloud to test the ascensional powers of an apparatus devised by the brothers Dufaix, and called the Hélicoptère. This consists of a light tubular framework five metres from end to end. At each end is mounted a pair of propellers made of parchment stretched on wooden frames. The propellers revolve in opposite directions, being drawn by propeller shafts and bevel gearings from a petrol motor mounted vertically amidships, and developing a little over 3 h.p. The weight of the motor is only 4½ kilogrammes, and the weight of the whole machine 17 kilogrammes. In the experiments the ascending powers of the Hélicoptère were tested by attaching it to an endless rope passing over two pulleys, one near the ground and the other near the roof of the *Aéro Club* shed. When the motor was set working the machine rose swiftly and easily to a height of 90 feet. In a second experiment a sandbag weighing 12 lbs. was attached to the model, and this additional weight did not interfere with the ascent.

Experiments with Man-Lifting Kites at Aldershot.—Army jottings in the *Naval and Military Record* lately drew attention to the fact that Sapper Moreton, of the Balloon Section of the Royal Engineers, has established a record by remaining for an hour at an altitude of 2,600 feet, suspended from one of Mr. Cody's man-lifting kites. This feat bears out the high opinion that experts have expressed as to the stability of Mr. Cody's kites, and the experiment should have placed the value of the kite in war beyond doubt.

New Aeronautical Biographical Series.—M. Wilfred De Fonvielle, late president of the French Aeronautical Society, and honorary member Aeronautical Society of Great Britain, who is so well-known to the members of the latter Society, from having on more than one occasion taken an active part in its proceedings, is writing a most valuable series of articles on famous *aéronauts* in *Les Contemporains*. Before us is a particularly interesting one on Henry Giffard, and treating in full of his various inventions, devoting considerable space to his two well-known attempts at aerial navigation in navigable balloons of his own construction—tales which none could tell more vividly than M. Wilfred De Fonvielle.

Obituary.

COLONEL CHARLES RENARD.

In the sudden death of Colonel Charles Renard, the Director of the French Department of Military Aeronautics, on April 13 last, the cause of aerial navigation has lost one of its most ardent adherents. Only a short time before his death the Aeronautical Society of Great Britain had cause to consider at its meeting the importance of Colonel Renard's researches in navigable balloon construction, and therefore it is unnecessary to dwell in the present notice on the construction of the balloon "*La France*." It will suffice now to remind our readers that he, with his partner, M. Krebs, was the first to make a return journey to the place whence the balloon started. This fact is of itself sufficient to give him a high place amongst the makers of aeronautical history. But his memory also deserves honour for many services rendered to his country in connection with the general development of military aeronautics in France and the perfecting of many details of balloon accessories.

Amongst the many eminent persons who were present at his funeral ceremony at the church of St. Sulpice, in Paris, on April 17, were M. Fallières, President of the Senate, M. Doumer, President of the Chamber of Deputies, Captain Riberpray, representing the Minister of War, M. Janssen, M. Becquerel, M. Berthelot, M. Earnest Archdeacon, M. Camille Flammarion, M. Santos Dumont, Le Comte de Castillon de Saint Victor, M. Jacques Faure, M. Paul Tissandier, M. Hervé, and M. P. Y. Alexander, member of the Aeronautical Society of Great Britain.

Besides the honour of his position as

head of military aëronautics in France, Colonel Renard had many other honours bestowed on him. He was Président de la Commission Permanente Internationale d'Aéronautiques, Membre d'Honneur de de l'Aéro Club de France, Membre d'Honneur de l'Aéronautique Club de France, Membre du Conseil de Perfectionnement du Conservatoire National des Arts et Métiers, Membre du Conseil de la Société Française de Physique, Ancien Président de la Société Française de Navigation Aérienne, Membre de l'Association Vosgiennes de Paris, Membre de la Société Astronomique de France, Lauréat de l'Institut, Commandeur de la Légion d'Honneur, Officier de l'Instruction Publique, Commandeur des Ordres de St. Benoit de Aviz de Portugal, de Wasa de Suède, et de St. Stanislas de Russie, Chevalier de St. Anne de Russie.

Foreign Aeronautical Publications.

(In this list a selection of some of the more notable articles is only given).

L'AÉRONAUTE (Paris).

April, 1905.—Nouvelles expériences d'aviation. M. F. Roux. (*Continued*.)

May.—Rapport de M. Leloup sur les concours de cerfs-volants.—Observations de l'éclipse du 30 Août en ballon.—Nouvelles expériences d'aviation. M. F. Roux.

L'AÉROPHILE (Paris).

April.—Portraits d'Aéronautes Contemporains: Victor Louet. A. de Masfrand.—Le Colonel Charles Renard. Edouard Sureouf.—L'Observatoire de Blue-Hill. Henry de la Vaux.—Un nouveau racer aérien. A. de M.—Essai de lancement d'un aéroplane par une automobile. G. Hermite.—Les grandes ascensions, de Folkestone à Calais, un raid de 830 kilomètres. Georges Blanchet.—Dispositif d'hélices légères. Vicomte Decazes.

May.—L'Hélicoptère des Frères Dufaux.—Le Concours de Bordeaux. George Bans.

LA CONQUÊTE DE L'AIR (Brussels).

June 1.—La Fête Historique de l'Aérostation du 23 Juillet au Parc du Cinquantenaire à Bruxelles.

June 15.—Fête Internationale du Gaz et des Aéronautes.

ILLUSTRIRTE AÉRONAUTISCHE MITTEILUNGEN (Strassburg).

April.—Nochmals die deutschen Frauen und die Luftschiffahrt. Mødebeck.—Lustige und traurige Episoden aus den ersten Jahren de Ballon.—Aera (1788).—Montgolfières.—Aufschiege in Columbian.—Premier Concours d'appareils d'aviation non montés à Paris. G. Espitellier.

May.—Zur Geschichte der Luftschiffahrt.—Lehrreiche Aëronautische Photographien.—Der "Maikarpfen" der Japaner, Hofmann.

June.—Charles Renard.—H. Mødebeck. Ueber das Lebenswerk von Oberst Renard by G. Espitellier.—Ueber Finsternismeteorologie und die Künftige Sonnenfinsternis vom 30 August, 1905.—Zur Wrightschen Flugmaschine.

WIENER LUFTSCHIFFER-ZEITUNG.

May, 1905. Von Paris nach Österreich.—Brief aus Algier. Wilfred de Fonvielle. Aus dem Jahr, 1870.—Felix Hansen.

June. Eine Hochfahrt auf 6064 meter. Léon Gheude.

BOLLETTINO DELLA SOCIETA AERONAUTICA ITALIANA (Rome).

March-April, 1905. Sull 'angolo "optimum" e sulle eliche di massimo rendimento teorico. Arturo Crocco.—Il Congresso Internazionale di Aerostazione Scientifica a Pietroburgo. I Palazzo.—L'esplorazione dell' atmosfere Libera. B. Dessau.

Applications for Patents.

(Made in April, May, and June, 1905.)

The following list of Applications for Patents connected with Aëronautics has been specially compiled for the AERONAUTICAL JOURNAL by Messrs. BROMHEAD & Co., Patent Agents, 33, Cannon Street, London, E.C.

APRIL.

6824. March 31st. WILLIAM MCKELLAR AND JAMES WILLOX. Apparatus for Propelling and Steering Air-ships.

8212. April 17th. ALFRED HARDIE. Improvements in and relating to Flying Machines, partly applicable to high-speed boats.

MAY.

9688. May 8th. LOUIS ERNST. Improvements in and relating to machines for Aërial Navigation.

9767. May 9th. LOUIS AUGUSTE BECHT. Improvements in or relating to Air-ships.

10106. May 13th. REGINALD MANSFIELD BALSTON. Improvements in or relating to Kites and similar apparatus for Aërial Flight.

10366. May 17th. FRANZ RICHARD EMIL KOEHLER. Improvements in the Movements of Air-ships.

10516. May 19th. FRANZ RICHARD EMIL KOEHLER. Improvements in the Movements and Safety of Ships on Water or Air.

JUNE.

11748. June 5th. ARTHUR HENRY PHILIP BUNT. Improvements in Flying Machines.