nautical stations in Austria have instructions to watch for the balloons and telegraph news of them.

The Belgian balloon ascended at 8.43 a.m., carrying registering instruments for the study of atmospheric pressure and electricity and temperature, and photographic apparatus for measuring the height reached by the balloon. It is hoped it will reach an altitude of 6,000 metres (nearly four miles).

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# Obituary.

### MR. H. PERIGAL.

WE much regret to have to record the death, on June 6th, of one of our oldest members, Mr. Henry Perigal, at the advanced age of 97 He was elected in February, 1866, vears. within a month of the foundation of the Society, and in point of seniority was second only to Mr. Glaisher. Mr. Perigal was for some time a clerk in the Privy Council Office, and afterwards in the old Victualling Office. Subsequently he joined the firm of Messrs. Henry Tudor and Son, of Threadneedle Street. He was the author of various works on astronomy, bicycloidal and other curves, kinematics and the laws of motion, probable mode of constructing the pyramids, etc. He was a Fellow of the Royal Astronomical, Royal Microscopical, and Royal Meteorological Societies, of which latter he was Treasurer, as well as a member of several other scientific associations, and until within two years of his death was constant in his attendance at their meetings.

#### DR. HUREAU DE VILLENEUVE,

another well-known worker in the field of theoretical aeronautics, has also passed away. M. Abel Hureau de Villeneuve was elected a complimentary member of our Aeronautical Society so long ago as 1868. He founded and edited the well-known French periodical "L'Aeronaute," which has continued its monthly issues for over thirty-one years, and contributed many interesting articles to its pages. In 1878 he was elected President of the "Societe Francaise de Navigation Aerienne" for the year, and has for long been General Secretary to it. He died suddenly in Paris on June 2nd in his 65th year.

## NOTES.

ACROSS AFRICA BY BALLOON.-Three French officers are about to endeavour to cross the Sahara Desert in a balloon. Thev will start from the Gulf of Gabes, and land, if all goes well, in the Niger Territory a month later. The balloon will have a cubic capacity of 13,000 metres, and will be able to remain in the air for from forty to sixty days. All possible precautions are being taken to assure the success of the enterprise. A start will be made by a north or north-east wind, which should take the travellers to Rhadames, whence they will be blown by the steady and reliable north-north-east desert winds towards the Niger, or even the Atlantic if so desired. The Leo Dex will drag behind it a steel wire guide rope one thousand two hundred yards long, and should any natives be so ill-advised as to lay hold thereof, the action of a powerful Rumkorff apparatus in the car will induce them to let go again. Another original device is that the ballast of the balloon will be composed of leaden bottles painted bright red and filled with liquid. Should an accident oblige the travellers to descend in the desert the red bottles thrown out from time to time will serve to indicate their route, besides, perhaps, enabling them to quench their thirst. The officers who are undertaking this journey, which reminds one of Jules Verne's book "Five Weeks in a Balloon," are Naval Lieutenant Hourst, the explorer M. Leo Dex, "aeronaut pilot" of the Ministry of War; and Captain Dibos, of the Engineers. The Paris Municipal Council has just voted 15,000 fr. for a public trial trip of the Leo Dex to be made from Paris.

ADER'S FLYING MACHINE. - The French Minister of War is encouraging the flying machine, or "Avion," of M. Ader for military purposes, to wit, as aerial scouts for discovering the position of the enemy or their manœuvres, and as aerial destroyers destined to throw bombs down on troops or cities, and even fight other aerial destroyers in the air. Trials of the Avion were made recently at the camp of Satory, but though successful at first, an accident put an end to them. They are, however, considered satisfactory. The Avion is a true flying machine, with large wings like those of a bat, made of silk on bamboo frames. They are worked by a steam-condensing engine of great power for its weight and size. The weight of the motor is about 7 lb. per horse power. The total weight of the Avion is about 1,100 lbs. The rest of the machinery is of

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