

### Historic Natural Events.

Sept. 14, 1716. **Thames Dry.**—After an excessive drought, which continued from February to the end of August, a strong west-south-west wind prevented the tide from coming in for 24 hours, so that there was only a narrow channel some 10 yards wide, and so shallow that thousands of persons passed across on foot, under the arches of London Bridge.

Sept. 14, 1899. **Floods in Austria.**—Heavy rains fell on Sept. 8–14. At Mühlau the fall on Sept. 12 was 11·3 in. in 24 hours, and the total for the six days exceeded 24 in. The Danube rose to a level nearly 25 feet above the low-water stage at Vienna and nearly twice this amount in some other localities. The floods, which were exceeded only by those of 1501, did great damage.

Sept. 15–17, 1929. **Thunderstorm near Channel Islands.**—A remarkably severe thunderstorm raged almost without cessation over a small area near Dinard and the Channel Islands from 6 P.M. on Sept. 15 to 4 P.M. on Sept. 17, accompanied by violent winds from the north-east. There was considerable damage both by lightning and flood; the power station at St. Brioux was put out of action, and at Dinard an Englishman was blinded. A bridge on the main Dinard-St. Lunaire road was swept away and a motor-car crossing at the time was washed out to sea. St. Lunaire was flooded to a depth of two feet and the streets torn up.

Sept. 16, 1363. **Beginning of Severe Winter.**—According to various old chronicles, a "very terrible" frost continued from the middle of September into April. Holinshed, quoting "Walsingham and other old writers", says Dec. 7–Mar. 19. In Paris the frost began on Dec. 6 and lasted 14 weeks. The Rhine was frozen from Jan. 5 to Mar. 17, and waggons were driven over the ice. In France the winter was very snowy.

Sept. 17, 1882. **Great Comet.**—On this day, the great comet, visible to the naked eye in full daylight, was followed telescopically right up to the edge of the sun by Mr. Finlay (the discoverer of the comet on Sept. 7) at the Cape of Good Hope Observatory. Even the nucleus was quite invisible, however, as the comet crossed before the sun's disc. At Melbourne the comet was watched with the unaided eye to within 4° of the sun. By Sept. 24, it was visible with a tail 15° long in the bright dawn. Success in photographing this comet and its background of stars at the Cape Observatory under the direction of Sir David Gill was an important factor in the inception in 1887 of the *Astrographic Chart and Catalogue*. The period of the comet is 761 years.

Sept. 18–19, 1926. **Florida Hurricane.**—Early on Sept. 18 the south-eastern coast of Florida from Miami to Palm Beach was struck by an intense hurricane, which on the previous day had ravaged the Turks and Caicos Islands. The centre, moving towards the west-north-west, passed almost over Miami, where the official barometer fell to 936 mb. (27·65 in.). During its approach the wind reached hurricane force (75 miles per hour and upwards) for nine hours, and the greatest velocity is estimated as 130 miles per hour. Then, as the centre passed over, there was a lull and large numbers of people, not realising that a second phase was coming, ventured out, to be caught when the wind rose again to hurricane force in the rear of the centre. The strength of the wind is shown by the nature of the damage; an 18-story skyscraper recently completed was twisted so badly that it had to be demolished, and another tall building was bent over twenty degrees from the vertical. Yachts and

small ships were lifted bodily on to the land. After passing Miami the hurricane curved away to the north-west, striking the Gulf Coast between Mobile and Pensacola on Sept. 20 and dissipating over eastern Texas on Sept. 22. In Florida 327 persons were killed and more than 6000 injured, and the damage to property probably exceeded 100,000,000 dollars, and was greater than in any previous hurricane in the United States.

Sept. 19, 1387. **End of Hot Summer.**—The summer in Europe was extraordinarily dry and hot and was proverbial for centuries as "The Old Hot Summer". From Feb. 28 to Sept. 19 it rained only six times in Switzerland, and men waded across the Rhine at Cologne. The year was not especially dry in England.

Sept. 19, 1540. **Drought.**—After a calamitous year, fine weather and heat lasted from February until Sept. 19, during which interval scarcely any rain fell in Europe.

Sept. 20, 1909. **Storm Wave through Yucatan Channel.**—A tropical hurricane of great intensity and large extent passed through this Channel on Sept. 17 and struck the coast of Louisiana a short distance west of New Orleans on Sept. 20. A great storm wave swept inland, and the water, checked by the swamp forests and levees, reached a depth of 7–10 ft. over a large area to the right of the centre, including New Orleans. The damage to property caused by this storm exceeded six million dollars and 353 lives were lost.

Sept. 20, 1929. **Hurricane in West Indies.**—This disturbance was first reported about 300 miles north of Porto Rico on Sept. 20; at that time it was of moderate intensity, but by Sept. 24 it had reached hurricane force. It was, however, chiefly noteworthy for its abnormally slow rate of movement and aberrant track. From Sept. 24 to Sept. 28 it actually moved in a south-westerly direction across the Bahamas and through Florida Strait near Miami. At Nassau, Bahamas, on Sept. 25 a violent westerly gale caused a 'hurricane wave' which destroyed the sea wall and flooded the town, carrying away many houses. Many others were unroofed, stores, churches, and shipping were damaged, and many lives were lost. In Florida the damage was much less, and the centre was evidently decreasing rapidly in intensity, but at Miami there were a number of waterspouts and at Key Largo the wind velocity during gusts was estimated as 150 miles per hour. From Miami the centre moved very slowly north-westwards to Panama City near Pensacola, where a few wharves and stores were destroyed on Sept. 30.

### Societies and Academies.

#### PARIS.

Academy of Sciences, July 21.—G. Bigourdan: The astronomical stations of Châtillon-sous-Bagneux.—L. Blaringhem: The heredity of the phases of flower opening in poppies.—F. Mesnil: The adaptation to man of the trypanosomes pathogenic to mammals. The author considers that it has been experimentally demonstrated that a trypanosome of animal origin, such as *Tr. brucei*, can adapt itself to man.—M. Aubert and R. Duchêne: The propagation of combustion in carburetted mixtures.—G. Bruhat and J. Terrien: The comparative absorption of active and racemic acids in aqueous solution. Between the wave-lengths 2653 Å. and 2400 Å., if racemic acid absorbs light differently from solutions of the active acids, the deviations are always less than 4 or 5 per cent in one direction or the other, and the average of