

Historic Natural Events.

July 28, 1883. Destructive Ischian Earthquake.—Casamicciola, the chief town in the island of Ischia (Italy), was destroyed by an earthquake and about 1800 out of 3963 inhabitants were killed. The area of complete destruction, however, contained only 3 square miles, and the whole disturbed area between 300 and 400 square miles, that is, less than the area of a slight British earthquake. This implies a very shallow focus, the depth of which was estimated from the directions of fissures to be one-third of a mile. The epicentral area lay on the northern slope of Epomeo, a volcano that was last in action in 1302, and its longer axis was directed towards the centre of the old crater. Thus, the earthquake may have been the result of an unsuccessful attempt to force a new eruption.

July 29, 1875. Shower of Hay near Dublin.—About 9.30 A.M. a quantity of hay fell from the sky at Monkstown near Dublin, over an area of more than a mile in diameter, the shower lasting five minutes. There was a dark cloud overhead and the hay was wet, but no rain was falling, and the air was very calm.

July 29, 1911. Thunderstorms over the British Isles.—A line-squall traversed the British Isles from south to north between 2 P.M. on July 29 and 9 A.M. on July 30, and in the southern half of the country it was associated with violent thunderstorms and strong squalls. At South Kensington $1\frac{1}{4}$ inches of rain fell in a short time. The storm caused remarkable tidal oscillations in the English Channel, the water rising suddenly 3 feet with the onset of the squall.

Aug. 1, 1785. Swarm of Aphides at Selbourne.—Gilbert White records that about 3 P.M. a shower of Aphides or smother-flies fell in Selborne, blackening all the plants and covering persons walking in the streets. They were observed at the same time in great clouds about Farnham, and all along the vale from Farnham to Alton, and were probably migrating from the hop-fields of Kent.

Aug. 1, 1798. Mirage at Ramsgate.—A remarkable mirage was observed by the Rev. S. Vince from Ramsgate from about 4.30 P.M. until between 7 and 8 P.M. The day had been extremely hot and the evening was very sultry. The masts and upper sails of a ship were seen through a telescope; above it was a perfect inverted image of the same ship and a part of the surface of the sea, and above that again, and joined on to it, a third image showing the ship erect, these two images having their hulls joined. Similar effects were seen with various other ships. Most of the observations were made from a height of 25 feet, others from 80 feet, the phenomena not being altered by the change of height.

Aug. 1, 1846. Hailstorm in London.—During a violent hailstorm the glass in the picture gallery at Buckingham Palace was totally destroyed and the gallery flooded. 7000 panes of glass were broken in the Houses of Parliament and 10,000 at Burford's Panorama in Leicester Square. The glass arcade then covering the side walks in Regent Street was destroyed and the Surrey Theatre was flooded.

Aug. 1-6, 1901. "De Witte" Typhoon.—One of the most violent typhoons which have been systematically studied approached China, travelling in a west-north-west direction, on Aug. 1, 1901, and struck the coast in lat. 27° N. on the afternoon of Aug. 2. Thereafter it travelled on a great curve through Fuhkien, east of Kiangsi and across the province of Chekiang, and continued across Asia towards the north-north-west, a very abnormal path. Off the coast the barometer in the central calm fell to 915 mb. (27.03 in.). The storm is known for the destruction of the Russian vessel

Finanzminister De Witte, a powerfully engined and well-found steamer of 2000 tons, less than two years old, which was knocked to pieces by the heavy seas.

Aug. 1, 1907. Ball Lightning at Alpena, Michigan.—On Aug. 1, 1907, during a heavy shower with thunder and lightning, a ball of lightning about six to eight inches in diameter entered a house. It dropped lightly on to the floor, moved round the room in circles, then entering the wall, moved up inside it and came out a few feet above the window. A four-inch brace was splintered and much plaster was forced into the room. The ball then travelled across the room again and out of the other wall, making a ragged hole. It struck into the earth about 30 feet from the house, leaving a hole about 6 inches wide and a few inches deep.

Aug. 2, 1837. The Hurricane of Los Angeles.—This was probably the most severe hurricane ever experienced in Porto Rico; it lasted only five hours, but its violence was so excessive that all the ships in the harbour of San Juan were wrecked and great damage was done to property throughout the island.

Aug. 2, 1906. Guildford Storm.—After a very hot day violent thunderstorms broke over south-east England during the evening, the most violent occurring between Hindhead and Ripley, and especially at Guildford. At Grayshott 1.17 in. of rain fell in 15 minutes between 8.23 and 8.38 P.M., accompanied by a violent squall. At Guildford the low-lying parts of the town were flooded to a depth of several feet and a great deal of damage was done by the wind and hail. Many large trees were blown down and several buildings wrecked, while there was some loss of life.

Aug. 2-3, 1922. Swatow Typhoon.—This storm, one of the worst in history in the China Seas, was first observed as a slight disturbance near the Caroline Islands on July 27. It moved towards the west-north-west, gradually increasing in intensity. On July 31 it was over northern Luzon, where it turned more towards the north and crossed the Chinese coast on the night of Aug. 2-3, the centre passing directly over Swatow. The barometer fell to 938 mb. (27.70 in.), the wind was very violent and the rain torrential. Both foreign and native shipping suffered heavily, but the worst damage was done by an enormous sea wave, which crossed the mud-flats in front of the city early on the morning of Aug. 3, and washed away all the houses which had not been blown down. Out of a population of 65,000 persons, it is estimated that 50,000 lost their lives, and it was several days before the water drained off the countryside.

Societies and Academies.

DUBLIN.

Royal Irish Academy, June 23.—J. I. Armstrong, J. Calvert, and C. T. Ingold: The ecology of the mountains of Mourne, with special reference to Slieve Donard. The vegetation of the area is mostly *Callunetum* of various types, growing on peat covering granite rock. The peat is mostly retrogressive, especially at high altitudes; rarely a progressive peat formation was seen. Examination of the peat (one station, 518 metres) shows in a two-metre section an extraordinary increase of pollen-grain at 66 cm. from the surface. All the pollen is considered to be wind blown.—J. M. White: Re-colonisation after peat-cutting. Studies were made mainly in Co. Armagh, where peat-cutting is still carried on on a considerable scale. The depth to which peat-cutting is carried was found to be the most important factor in the re-colonisation of the cut areas, when combined with the time factor.—Miss M. Duff: The ecology of the Moss-