

winds usually prevail during the spring, and during the remainder of the year westerly winds are most common.

The irregular winds are most feared by voyagers and travellers, and the most violent of these are the whirlwind, the harmatan, and the sirocco.

The whirlwind appears to be produced by the contact of two or more currents blowing from different parts, and is usually produced by a temporary and local, though violent agitation of the atmosphere. The harmatan is not uncommon on the western coast of Africa, and is probably produced by an interruption of the direction of the tradewinds in the course of their progress over the sandy deserts of Africa. It is generally attended with an oppressive heat and heavy fog, and is said to be the forerunner of a hurricane. The sirocco is occasioned by the passage of a current of air over the heated sands of Africa, which render it so dry and rarefied as to unfit it for respiration; it is therefore chiefly characterized by its unhealthy qualities; but in passing over the Mediterranean Sea it absorbs so large a quantity of moisture, that a suffocating and oppressive fog is produced.

We often hear of the destructive effects of a violent wind, but we are happily, experimentally, unacquainted with them. The noblest works of man are not unfrequently destroyed by its energetic efforts, and countries are sometimes devastated by its fearful blast; but in no country are its effects more to be dreaded than in some parts of Africa. During the storms that often rage in the deserts, the loose and unstable sand is frequently carried into the air in such dense clouds as to intercept the rays of the there omnipotent sun, while at other times it is raised by the whirlwind into massive and gigantic pillars. The traveller who has to cross the extensive deserts of Africa, may consider himself fortunate if he passes them without beholding either of these terrific phenomena. It must be a magnificent but fearful sight to see a number of prodigious pillars of sand, stalking with greater or less velocity over the unmeasured waste, their tops reaching to the clouds, and sometimes based on the attenuated air. Should they, however, happen to cross the path of the traveller, there is little chance of escape. But if this phenomenon be sometimes destructive to a kafila, how much more so the sand-wind, or hurricane. Denham had the misfortune to encounter a sand-storm in crossing the desert and has briefly