

' quarter. These returned clouds, from April or
' May till toward autumn, produce in the district
' of Port-au-Prince the regular rains which constantly proceed from the east. There is not a
' single inhabitant who does not predict the
' evening rain between six and nine o'clock,
' when according to their mode of expression,
' *the broken cloud has been sent back.* The west
' wind continues not during the whole night.
' It falls regularly toward the evening, and,
' when it ceases, the clouds pushed from the east
' are enabled to fall in the form of rain, as soon
' as their weight exceeds that of an equal column
' of air. The wind which prevails in the night
' is a land wind, which proceeds neither from
' the east nor the west, but follows the projections
' of the coast. At Port-au-Prince, the
' south wind, because it traverses the course of
' the river, is intolerably cold during the months
' of January and February *.

* Note communicated to M. de Buffon, by M. Fresnaye, one of the councillors of St. Domingo, dated March 10, 1777.

IV.

Of Lavanges, or great Masses of Snow and Ice rolling down from high Mountains.

IN high mountains, there are winds produced by accidental causes, and particularly by *lavanges* *. In the environs of the Alpine glaciers, several species of *lavanges* are distinguishable; some of them are called *windy lavanges*, because they produce a great wind. They are formed when a new fall of snow has been put in motion, either from melting below by the interior heat of the earth, or by the agitation of the air. The snow then forms itself into balls, and in rolling accumulates, falls in vast masses into the valleys, and produces a great agitation in the air; because the snow runs with rapidity, and in immense volumes, and the winds occasioned by the motion of these masses are so impetuous, that they overturn every thing, even the largest pines, that oppose their passage. These *lavanges* cover the whole territory over which they extend with a very fine snow; and this powdered snow rises in the air at the caprice of the wind, i. e. without any fixed direction, which is extremely

* I know no single English word expressive of this idea, and therefore retain the French term.

dangerous

dangerous to people in the fields; because they know not to what side to run in order to protect themselves; for, in a few seconds, they find themselves surrounded, and often completely buried with the snow.

Another species of *lavanges*, still more dangerous than the first, is called by the country people *schlaglawen*, i. e. *dashing* or *striking lavanges*. They proceed not with such rapidity as the first kind; but they overturn every thing in their way, and carry along with them great quantities of earth, stones, flints, and even entire trees; so that their passage from the mountain to the valley is a vast track of destruction and ruin. As they proceed with less rapidity than the *lavanges* composed of pure snow, they are more easily avoided. Their approach is announced at a distance; for they shake the mountains and the valleys by their motion and weight, and produce a noise equal to that of thunder.

These tremendous effects may proceed from very slight causes: A small quantity of snow falling from a tree or a rock, the sound of bells, or the shock of a cannon or musket, provided they detach some portions of snow from the summit, which form into balls, and increase in magnitude as they descend, will accumulate into a mass as large as a small mountain before they arrive at the valley.

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The inhabitants of countries subject to *lavanges* have invented several precautions to prevent their destructive effects. They place their buildings opposite to small eminences, which may break the force of the *lavanges*. They likewise make plantations of wood before their habitations. At Mount St. Godard, there is a forest in a triangular form, the acute angle of which is directed towards the mountain, and seems to have been planted with a view to turn off the *lavanges* from the village of Urieren and the buildings situated at the foot of the mountain; and every person is forbid, under the severest penalties, to injure the forest, which may be regarded as the safeguard of the village. With the same intention there are, in many places, walls erected with their acute angles turned toward the mountain. A wall of this kind may be seen at Davis, in the country of the Grisons, as also near the baths of Leuk or Louache in Valais. In the same country of the Grisons, and other places, there are, in the passages through the mountains, vaults at convenient distances, cut out of the rock on the side of the high-way, which serve passengers as places of refuge against the *lavanges*.*

* Hist. Nat. Helvetique, par Schwaebacher, tom. i. p. 155.