earth, suffocated a multitude of cave-dwelling animals, such as rats and serpents.

The waters which thus escape from the earth are frequently mingled with sand; and even eruptions of dry sand occur, producing small circular openings in the soil, of which we shall see some examples when we describe in detail the great Calabrian earthquakes.

The gaseous exhalations are not easily recognized on the earth, because the gases dissipate in the atmosphere without anything indicating their passage or their presence. Their emission is, in fact, only appreciable when it takes place under a liquid stratum. Sometimes in the course of an earthquake the sea boils, and enormous bubbles rise to the surface—a phenomenon which renders visible and distinct the subterranean escape of gas. Some savants have thought it possible to detect a certain coincidence between the escape of the gases which rise from the bottom of the Lake of Geneva, and certain shocks of earthquake which make themselves felt throughout the vast chain of the Alps.

NATURE OF THE DISASTERS PRODUCED BY EARTHQUAKES.

The narratives of earthquakes observed in all quarters of the world, and recorded in the annals of every nation, bring before us the scattered details of the general picture we shall attempt to trace. Everywhere we read of crevasses and fractures of the terrestrial crust-of chasms suddenly created, in which the superficial strata are swallowed up, with houses and churches, fields, gardens, orchards, Everywhere we read of enormous masses of water or and cornfields. clouds of vapour issuing through the gaps in the earth's surfacesometimes even of flames, which are produced by the action of the atmospheric oxygen on combustible gases. Sometimes huge hills are suddenly thrown up in the midst of plains, or rocks and sandbanks rise above the waves of ocean. Sometimes the mountains are shattered from summit to base, and undulating districts are rolled flat, and replaced by lakes of water. Rivers are swallowed up in subterranean recesses or directed into new channels; while, on the other