all, the meteorological changes. This is not merely an opinion; it is, we think, warranted by our own experiments, and rendered probable by the experiments which have been made by others.

HAIL.

In England we are fortunately little subject to violent hail-storms, and this may account for the small attention we have given to the subject. In the south of France they are frequent, and produce the most destructive effects: the French philosophers have therefore closely studied the phenomenon.

From among the many theories which have been invented to account for hail, we may, first of all, select that which was proposed by the celebrated Volta; a theory which altogether depends upon the admission that clouds are in opposite electrical conditions. If we take two metallic plates, and place them horizontally one above the other, connecting the upper with the prime conductor of a machine, and the lower with the ground, pith balls or figures lying between the plates will, as soon as the upper plate is electrified, be attracted to it; but, receiving a part of its electricity, will then be repelled, because bodies having the same electric condition repel each other. As soon as the ball or figure touches the lower plate, it parts with all its electricity, and is again attracted by the upper; so that there is a constant oscillation produced by the disturbance and restoration of electric equilibrium. Now Volta supposes the same thing to be going on in the clouds: he substitutes the black clouds which produce hail for the metallic disks, and supposes the particles of hail existing between them to undergo the same oscillatory motion.

This celebrated philosopher accounts for the first formation of hail in the following manner:—"The clouds are formed of hollow vesicles, the external surface of which is fluid. The myriads of these, which form the upper surface of a cloud, must undergo, towards the south, a strong evaporation, both on account of the intensity of the solar rays and the dryness of the air in which they swin. The elastic vapour thus produced by the solar heat must first saturate the dry air through which it passes, and at length, by the low temperature of some superior stratum, become again reduced into a vesicular state, forming another cloud. differing in its electri