

clouds are sometimes warmer than the surrounding air ; and if the mere coldness of the atmosphere produced a condensation of vapour, then the night should always be attended with fogs or clouds, as the result of the condensation of the vapour raised during the day.

An extremely high temperature is sometimes continued for a long time without the formation of clouds. It is stated that in January, 1785, the mean temperature during the month was $66\frac{1}{2}^{\circ}$, a temperature that must have greatly aided evaporation, and yet not a drop of rain fell, and the moisture of the air diminished so rapidly that it at last almost disappeared. Such a phenomenon cannot be easily explained.

It is generally admitted that clouds are combinations of aqueous drops, and it is almost universally acknowledged that their parts have a vesicular structure. Saussure states that, when passing over the Alps, he saw a multitude of small globules, like soap-bubbles, the component parts of a cloud, floating before him, being generally about the size of a pea, and apparently covered with an inconceivably thin coating. These particles, being charged with electricity of the same name, repel each other, and they are from this cause prevented from taking a liquid state and falling as rain. M. Pouillet, for whose talents we entertain the highest respect, as one of the best teachers and most discriminating observers in Europe, has stated that electricity is not given off during evaporation without chymical change ; but we have made experiments of so decided a character, as to enable us to state that this result is not to be depended on, for we can prove that in every case of evaporation electricity is developed. We shall take this result as though it were proved, leaving the enumeration of our experiments, and the statement of the means by which the fact was ascertained, to another occasion. Now, if electricity is given off during evaporation, and the vapour be formed into vesicles, they must all be similarly electrified, and consequently repel each other ; but if there be no truth in the principle we have stated, there are ample means of accounting for the accumulation of electricity from the action of other causes.

CLASSIFICATION OF CLOUDS.

In order that meteorologists may compare their observations and results, a system has been adopted by which they are