

INFLUENCE OF THE MOON'S LIGHT UPON PLANTS.

We borrow from the *Annals of Natural History*, the following observations by Professor Zantedeschi, of Venice, on a subject which has of late attracted considerable attention, and led to much diversity of opinion:

The Abbé Tessier having made a great number of experiments upon etiolated plants, which had become white or yellow from being kept in the dark, observed that those exposed to the light of the moon, and kept in the dark during the day, were evidently less yellow or white than those kept in the dark day and night.

The Abbé Antonio-Maria Vassalli, Professor of Physics at Turin, relates that the Sensitive Plant is susceptible of the influence of moonlight. "Having," he says, "procured some sprouted seeds of the Sensitive Plant, 12 days after their germination I transplanted them into earth contained in glass bottles, and into other vessels filled with earth.

"I observed that their sleep had a regular periodicity. Exposed to the east two hours before sunrise, their leaves, which were perfectly closed at 1 A. M., began to open at dawn, and unfolded completely some little time after sunrise, more or less quickly according to the state of the air. If they are carried during the day into a dark place, or covered with an opaque vessel, the leaves close, but not so exactly as during the night. Exposed afresh to the light, they open again slowly. In making these observations I was careful to shake all the pots equally, without covering them, in carrying them, in order that the variations might not be attributed to these shocks. After repeating the various observations, for greater certainty, I exposed the pots to the light of the moon.

"I did not remark any variation in the leaves when the exposure, commencing at 1 A. M., had lasted one hour; but after three hours the leaves were less closed though still not open.

"Having one evening exposed the pots to the rays of the moon until midnight, when the leaves were not completely closed, I found them very well opened about 1 A. M.

"I attempted to arrange a lens so that its focus should fall on a closed leaf; but I could not detect any variation in the short space of time during which the light of the moon was condensed." (Opuscoli scelti di Milano, 1794.)

These observations have been renewed in our own time on Vetches, by Prof. G. Giulj; he caused Vetches to germinate and spring up in a cellar entirely shut up from the light both of the sun and moon; and the little plants were very white. Some of them were exposed for several nights to the action of the moon's rays, while others, also in full growth, were kept in complete darkness: the former acquired a green colour like that of the same plants exposed in the open air, and even to the sunlight; those, on the contrary, kept constantly protected from the light of the sun and moon were not at all coloured, and ultimately rotted. More than this: Prof. Giulj ascertained by direct experiment that the light of the moon falling upon certain plants, or certain leaves, has the property of causing the liberation of oxygen (Dei Lavori della Reale Accadem. delle Scienze, 1844).

I have successfully repeated the experiments of Tessier and Giulj on the power possessed by the rays of the moon in developing the colors of the leaves of plants, and I took the greatest precautions to maintain the pots in all the conditions which