

over 100°, and had compelled the workmen, for the time being, to suspend work. The earth was found to contain over 75 per cent. of sulphate of protoxide of iron, and the heating had been due to the rapid absorption of oxygen by sulphuret of iron, disseminated throughout the earth in a finely divided condition.

*Change of Habit through Fungoid Agency.*—Mr. THOMAS MEEHAN referred to a former communication in which he exhibited specimens of *Euphorbia cordata*, or *E. humistrata*, collected by him in the Rocky Mountains, and which, normally procumbent, had assumed an erect habit on being attacked by a fungus *Æcidium Euphorbiæ hypericifoliæ*.

He now found that the common trailing *Euphorbia* of our section, *E. maculata*, when attacked by the same fungus, assumed the same erect habit. There was an additional interest in this observation, from the fact that with change of habit of growth there was a whole change in specific character in the direction of *E. hypericifolia*. In a comparison of the leading characters of the two species, we see that in *E. maculata* there is a profusely hairy stem, while that of *E. hypericifolia* is nearly smooth. The same is true of the fruit. The leaves of the former species are very oblique at the base—the latter nearly regular. The flowers are produced in all the axils. In the *E. hypericifolia* the stems have a tendency to be nodose at the joints, while *E. maculata* is nearly free from this character, and the flowers are mainly in heads at the ends of the branches. The *E. maculata*, after the fungoid attack becoming erect, also becomes nodose, and has the flowers on the ends of the comparatively smooth branchlets, while the leaves have lost their pointed obliquity; and, in short, all the characters make an intermediate between the two species.

He said it would not be fair to assume, from these facts, that *Euphorbia hypericifolia* was an evolution from *E. maculata*, but, as there could be no doubt that nutrition was one of the factors in the government of form, we could say that certain phases of nutrition, brought about by an attack of a minute fungus, would change the characters to the direction of those in that species.

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SEPTEMBER 29.

The President, Dr. RUSCHENBERGER, in the chair.

Sixteen members present.

There not being a sufficient number of members present for the transaction of business, in accordance with the By-Laws, the meeting adjourned until October 6.

On favorable report of the Committee to which it was referred, the following paper was ordered to be printed:—