Because Fries and Schweinitz were misled by external resemblance to refer this plant to Sphæriacei (since they give no indication of having observed its structure under the microscope), it cannot be contended that this is not the species of Schweinitz. When it is remembered that the free globose spores are identical in size and form with the spore-joints in many species of *Hypocrea*, some excuse may be made for the supposition that it might be a species of *Hypocrea*. I do not know that any except the original specimens have ever been found; and it is not surprising that the fortunate possessors of a single cup or two should have hesitated to cut in pieces and examine its structure as I have ventured to do, in the hope of setting the question at rest as to what is the *Sphæria pocula* of Schweinitz.

DESCRIPTION OF PLATE XLVII.

- Fig. 1. Cups *in situ*, natural size; 2, 3. Magnified bunches;
4. Magnified section. All after Schweinitz.
5. Section of cupule, magnified 12 times.
6. Section of hymenium, further magnified.
7. Section of tubes, showing basidia lining them.
8. Arrangement of basidia forming walls of tubes.
9. Separate basidia, with spicules.
10. Spores. Figs. 8, 9, & 10 $\times 500$ diameters.

NOTE.—Since the above was in type I have discovered that Berkeley and Curtis, in the fourth volume of the ‘Proceedings of the American Academy of Arts and Sciences’ (1860), describe this species anew as *Polyporus Pocula*, Berk. & Curt., but the description appears always since to have been neglected, and even to have passed from the memory of the Rev. M. J. Berkeley himself.

On the Life-history of *Æcidium bellidis*, DC. By CHARLES B. PLÓWRIGHT, M.R.C.S. (Communicated by W. T. THISELTON DYER, C.M.G., F.L.S.)

[Read March 20, 1884.]

THE *Æcidium* upon the common Daisy (*Bellis perennis*, L.) has hitherto, both by British and continental botanists, been regarded as a mere variety of *Æcidium compositarum*, Mart. During the past four months this fungus has been made the subject of experimental culture, by which it has been demonstrated that this view

is incorrect, and that this *Æcidium* is a true heteræcismal Uredine. This *Æcidium* differs from its allies in the time it appears, namely during the late autumn and winter months, from November to January. It has been made the subject of special observation for many years past, as it recurs annually upon its host-plant in four localities near Kings Lynn, and is never accompanied by any other spore-form upon the same plant. During the past four months these localities have been frequently visited, and the daisies, as well as the other plants growing near them, carefully from time to time examined, with the view of discovering its life-history. The subjoined cultures were then made; the only point about which calling for remark is the length of time which elapsed between the placing of the promycelial spores upon the host-plant and the subsequent appearance of the spermogonia. In most Uredines only about a week or ten days elapse before the parasite makes its presence visible. In this case, however, the interval was considerably longer: doubtless this is due to the fact that all the processes of vegetation are carried on much more slowly during the winter than is the case in summer. The same remark applies to the production of the uredospores upon *Luzula campestris* from the æcidiospores.

The *Æcidium* is not a very common species, and has always hitherto been met with in grassy pastures.

Two *Pucciniæ* occur upon various species of *Luzulæ*: one, already known as British, has smooth elliptical uredospores, *P. oblongata* (Link)=*P. Luzulæ*, Lib. The other, not previously recorded from this country, *P. obscura*, Schröt., which has subglobose rough uredospores, is connected with *Æcidium bellidis*.

Exp.	Plant infected.	Infecting material.	Date of infection.	Date of first appearance of uredo.
235...	<i>Luzula campestris</i> .	<i>Æcidium bellidis</i> .	19 Nov., 1883.	20 Jan., 1884.

Exp.	Plant infected.	Infecting material.	Date of infection.	Date of appearance of spermogonia.	æcidiospore.
237	<i>Bellis perennis</i> .	<i>Puccinia obscura</i> .	Dec. 12. 1883.	Jan. 6. 1884.	Jan. 25. 1884.
238	" "	" "	Dec. 12.	Jan. 6.	Jan. 25.
239	" "	" "	Dec. 12.	Jan. 6.	Feb. 8.
240	" "	" "	Dec. 12.	Jan. 6.	Jan. 25.