flower structure, together with observations upon plants grown in the water gardens of the Missouri Botanical Garden and Tower Grove Park, he finds they are especially adapted to the visits of large bees. The flower is so constructed as to utilize these visits in effecting cross-pollination. The pistil is held under tension in a manner similar to the bowed stamens in *Kalmia* by one of the lower staminodia. This staminodium is folded about the pistil in much the same way that the keel of a papilionaceous leguminous flower surrounds the stamen column, though much more closely and tenaciously. One margin of the keel develops two bristles, the posterior of which is in the direct path to the nectary. This bristle proves to be highly sensitive, and transmits an impulse to the part of the keel clasping the pistil, allowing the latter to suddenly rise and coil in a spiral motion. Before the flower opens the anther cell dehisces and sheds its pollen on a viscid disc which is situated on a style immediately back of the stigma. The stigmatic surface itself forms a funnel-shaped excavation in the end of the pistil. When a bumble-bee alights on the broad petaloid staminodium which forms the platform of the flower it thrusts its beak directly forward, under the canopy-shaped upper staminodium, into the drop of nectar which is clearly visible. By this act the beak strikes the sensitive bristle, which in turn releases the pistil. This rises with a sweeping, spirally-coiling motion which brings the stigmatic surface in contact with the base of the bee's beak, scraping into it any pollen that may have been previously deposited there. Then in its further motion the pistil deposits more pollen, from the viscid disc, upon the bee's beak at the same spot previously scraped by the stigma. This is to be carried to another flower. Finally the pistil comes to rest with its stigma snugly buried in a little wall pocket formed by a fold of the inner surface of the upper staminodium, thus excluding any possibility of further deposits of pollen upon it. Immediately this takes place the petaloid staminodia begin to wither and so discourage any further visits of insects.

A discussion of the flora about Crêve Coeur Lake followed.

The Club met again on Thursday, October 13th, fifteen members present. Mr. J. B. S. Norton discussed the modes of branching found in Euphorbiaceæ, and explained the structure of the flower, illustrating his remarks with numerous specimens. Miss N. M. Gladfelter spoke on edible mushrooms, and exhibited some forty species collected in and about St. Louis on one afternoon. Professor W. R. Dodson reported upon some results of growing soy beans of different colors. By selection it was possible to reach two extreme forms as well as all of the intermediate stages.

HERMANN VON SCHRENK,
Secretary.

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The Genesis and Dissolution of the Faculty of Speech. JOSEPH COLLINS. New York and London, The Macmillan Company. 1898. Pp. 432.

Elements of Sanitary Engineering. MANSFIELD MERRIMAN. New York, John Wiley & Sons; London, Chapman & Hall, Ltd. 1898. Pp. 216. $2.00.

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