

## Analysis of B:—

Ignition	6.70 per cent.	
Decomposed by $H_2SO_4$	28.00 per cent.	
		$Al_2O_3 = 12.60$
		$SiO_2 = 15.40$
		(Amorphous $SiO_2$ )
Dissolved by KHO	38.30 per cent.	
Insoluble residue	24.35 per cent.	
		$SiO_2 = 22.4$
		$Al_2O_3 = 1.50$
Not determined	2.075	
$CaOK_2O_1Na_2O_1$	100.00	

B is, therefore, a mixture of Kaolinite, opal silica, feldspathic mineral, and quartz.

## Examination of Part A:—

Ignition	12.24
$SiO_2$	69.40
$Al_2O_3$	13.50
CaO	0.60
MgO	0.30
Alkalies (difference)	4.00
	100.00

But this also parts into a soluble and an insoluble portion.

Insoluble	38.50 per cent.	$SiO_2 = 32.00$
		$Al_2O_3 = 6.40$
Soluble	61.50 per cent.	$SiO_2 = 42.2$
		$Al_2O_3 = 6.8$

It is absolutely impossible to identify any species with certainty under these circumstances.

## DECEMBER 10.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-six members present.

*Aspidium aculeatum* in Pennsylvania.—At the meeting of the Botanical Section of the Academy, held Dec. 9, 1878, Mr. CROZER GRIFFITH announced that while spending the past summer at Long Pond, North Mountain, Sullivan Co., Pa., he had found *Aspidium aculeatum*, Swz., var. *Braunii*, Koch, growing abundantly along the watercourse at the foot of Ganogo Falls, in a rocky, cool, and shaded locality. These falls are near the junction of the southeast corner of Sullivan and the northwest corner of Luzerne Counties, perhaps within the boundary of the latter.

So far as North America is concerned, this fern is distinctly a northern species. Canadian botanists have observed it at Gaspé and Temisconata, and from the north shore of Lake Huron to Kamouraska, eastward and northward, in restricted localities.



Tuckerman found it in the White Mountains of New Hampshire; Rush credited it to the Green Mountains of Vermont, and it has long been known to occur in that State at Mt. Willoughby, and in Smuggler's Notch at the base of Mt. Mansfield; Frost found it also near Brattleboro, Vermont; Macrae, many years ago, collected it in the Adirondack Mountains, Essex Co., N. Y. In 1869, Mr. Redfield found it at Stony Clove, in the Catskill Mountains, N. Y., and in 1873, Mr. S. H. Hall collected it at Haines Falls, in the Kaaterskill Clove of the same mountains, these being our most southern localities until now, when we find it in northeastern Pennsylvania, about latitude  $41^{\circ} 20'$ , and at an elevation of about 2000 feet above tide.

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## DECEMBER 17.

The President, Dr. RUSCHENBERGER, in the chair.

Forty-one members present.

A paper, entitled "Morphology of the Limbs of *Amphiuma*, and the probable Synonymy of the Species," by John A. Ryder, was presented for publication.

The deaths of Eli Geddings, M.D., a correspondent, and Samuel J. Reeves, a member, were announced.

The Publication Committee reported in favor of the publication of the following papers in the Journal of the Academy:—

"Descriptions of new species of fossils from the Pliocene Clay Beds between Limon and Moen, Costa Rica, together with notes on previously known species from there, and elsewhere in the Caribbean Area." By Wm. M. Gabb.

"Descriptions of Caribbean Miocene Fossils" By Wm. M. Gabb.

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## DECEMBER 24.

The President, Dr. RUSCHENBERGER, in the chair.

Fifteen persons present.

A paper, entitled, "On the Land Shells of the Mexican Island of Guadaloupe, collected by Dr. E. Palmer," by Wm. G. Binney, was presented for publication.



1878. "Aspidium aculeatum in Pennsylvania." *Proceedings of the Academy of Natural Sciences of Philadelphia* 30, 406–407.

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