OPEN LETTERS.

THE NAMES OF OUR FERNS.

THE deadly parallel has always been a striking method of impressing a point. When its bald statements are unqualified it seems to mean more than the facts will warrant, and it is expected to kill at long range. In a recent issue of the *BOTANICAL GAZETTE*, Mr. Fernald has made use of it to show the supposed instability of the "reform movement," but does not note the fact that ten of the fifteen changes of which he accuses me were made in accordance with changed conceptions regarding the limitations of genera, and consequently have no bearing whatever on the point he is attempting to illustrate. His illustration in other respects is very happily chosen, and its full import will become apparent when we add the part he forgot to use. For the benefit of the younger generation of botanists who, like Mr. Fernald, might be misled to suppose that all the changes of plant names have been proposed by the "reform movement," I will add from the same group the changes of trans-Carline origin that have been made in the past generation as follows:

FERN NAMES USED IN GRAY'S MANUAL, FIRST EDITION.

Polypodium Phegopteris L. (2, 3, 4).
Polypodium hexagonopterum Michx. (2, 3, 4).
Polypodium Dryopteris L. (2, 3, 4).
Struthiopteris Germanica Willd. (2, 3, 4, 5).
Allosorus gracilis Presl. (2, 3, 4).
Pteris atropurpurea L.†
Scolopendrium officinarum Smith (2, 3, 4).
Dicksonia punctilobula Hook. (2, 3, 4, 5).
Dryopteris Thelypteris [A. Gray].
Dryopteris Noveboracensis [A. Gray].
Dryopteris intermedia [A. Gray].

Dryopteris dilatata [A. Gray].

Dryopteris rigida [A. Gray].
Dryopteris cristata [A. Gray].
Dryopteris Goldiana [A. Gray].
Polystichum aculeatum Roth.
Polystichum acrostichoides Schott.
Polystichum Lonchitis Roth.
Osmunda spectabilis Willd. (2, 3, 4).
Botrychium lunarioides Swartz (2, 3, 4, 5).
Botrychium Virginicum Swartz (2, 3, 4, 5).

FERN NAMES USED IN GRAY'S MANUAL, SIXTH EDITION.

Phegopteris polypodioides Fee.
Phegopteris hexagonoptera Fee.
Phegopteris Dryopteris Fee.
Onoclea Struthiopteris Hoffm.
Pellaea gracilis Hook.
Pellaea atropurpurea Link.
Scolopendrium vulgare Smith.
Dicksonia pilosiuscula Willd.
Aspidium Thelypteris Swartz.
Aspidium Noveboracense Swartz.
Aspidium spinulosum intermedium D. C. Eaton.
Aspidium spinulosum dilatatum D. C. Eaton.
Aspidium Boottii Tuckerm.
Aspidium cristatum Swartz.
Aspidium Goldianum Hook.
Aspidium aculeatum Braunii Koch.
Aspidium acrostichoides Swartz.
Aspidium Lonchitis Swartz.
Osmunda regalis L.
Botrychium ternatum Swartz.
Botrychium Virginianum Swartz.

* These numbers indicate the successive editions in which this same form appeared.

† This passed through the intermediate stage of *Allosorus atropurpureus* [A. Gray] before reaching its final form.

Or in other words, out of the fifty species of ferns from the northeastern states described in the first edition of Gray's *Manual*, 21, or 42 per cent., bore different names in the last issue of the same work, and more than that, eight of these suffered a change in the specific name also, not including those whose relative rank was changed from variety to species or *vice versa*. Surely the trans-Carlins will have to admit that this exceeds the 25 per cent. which Mr. Fernald cites as such a horrible example. But after all, what matters it if 99 per cent. are changed so long as the change is an evolution towards a more stable system based on principles less unseaworthy than the personal preference hit-or-miss system of Kew and Berlin?

LUCIEN M. UNDERWOOD.