on comparing, *mutatis mutandis*, the following table, which shows the same agreement pointed out by Lovén whichever ambulacrum we start with. These formulæ are all made from Lovén's own figures.

I. Lovén's formula—

$$\begin{cases} \text{I.}a, \text{ II.}a, \text{ III.}b, \text{ IV.}a, \text{ V.}b, \text{ large plates,} \\ \text{I.}b, \text{ II.}b, \text{ III.}a, \text{ IV.}b, \text{ V.}a, \text{ small plates.} \end{cases}$$

II. Taking the ambulacrum he has called II. as I., we get both for the Spatangoids and Echinids—

$$\begin{cases} \text{I.}a, \text{ II.}b, \text{ III.}a, \text{ IV.}b, \text{ V.}a, \text{ large plates,} \\ \text{I.}b, \text{ II.}a, \text{ III.}b, \text{ IV.}a, \text{ V.}b, \text{ small plates.} \end{cases}$$

If we take III. as I. the formula is—

$$\begin{cases} \text{I.}b, \text{ II.}a, \text{ III.}b, \text{ IV.}a, \text{ V.}a, \text{ large plates,} \\ \text{I.}a, \text{ II.}b, \text{ III.}a, \text{ IV.}b, \text{ V.}b, \text{ small plates.} \end{cases}$$

If we take IV. as I.—

$$\begin{cases} \text{I.}a, \text{ II.}b, \text{ III.}a, \text{ IV.}a, \text{ V.}b, \text{ large plates,} \\ \text{I.}b, \text{ II.}a, \text{ III.}b, \text{ IV.}b, \text{ V.}a, \text{ small plates.} \end{cases}$$

If we take V. as I.—

$$\begin{cases} \text{I.}b, \text{ II.}a, \text{ III.}a, \text{ IV.}b, \text{ V.}a, \text{ large plates,} \\ \text{I.}a, \text{ II.}b, \text{ III.}b, \text{ IV.}a, \text{ V.}b, \text{ small plates.} \end{cases}$$

Showing most conclusively that any one of the ambulacra taken as I. will give a corresponding formula for all the Echinids, and that the I. chosen by Lovén with reference to the madreporic body has not the taxonomic value he has suggested, as far as an antero-posterior axis is concerned, any one of the other ambulacra giving precisely the same relation. I do not wish by this to deny the importance of the relations between the ambulacral plates established by Lovén. I only wish to show their general character, and deprive them of the geometric value he has assigned to them. The formulæ for the interambulacral plates are similarly universal.

Taking 1 as adopted by Lovén—

Lovén's formula for large plates is $1b$, $2b$, $3a$, $4b$, $5b$,
,, ,, small ,, $1a$, $2a$, $3b$, $4a$, $5a$.

Taking 2 as 1 we get—

for large plates, $1b$, $2a$, $3b$, $4b$, $5b$,
,, small ,, $1a$, $2b$, $3a$, $4a$, $5a$.

And so on, the corresponding formulæ finding their universal application to all the inter-ambulacra taken in turn, and that in addition no one has any pre-eminence above any