

XI—*Measurements of Angles of Basaltic Columns in the Giants' Causeway,
County of Antrim; made in 1877,*

By REV. J. H. JELLET, B.D., Fellow of Trinity College, Dublin.*

(A) TETRAGONS. (Sum=360°)

| | |
|---|--|
| <p>I. a ——— 90° b ——— 91 c ——— 87 d ——— 91 <hr style="width: 100%;"/> 359°</p> | <p>IV. a ——— 115° b ——— 86 c ——— 88 d ——— 69 <hr style="width: 100%;"/> 358°</p> |
| <p>II. a ——— 79° b ——— 83 c ——— 118 d ——— 92 <hr style="width: 100%;"/> 372°</p> | <p>V. a ——— 84° b ——— 87 c ——— 88 d ——— 96 <hr style="width: 100%;"/> 355°</p> |
| <p>III. a ——— 74° b ——— 100 c ——— 93 d ——— 90 <hr style="width: 100%;"/> 357°</p> | <p>VI. a ——— 90° b ——— 80 c ——— 82 d ——— 102 <hr style="width: 100%;"/> 354°</p> |

(B) PENTAGONS (Sum=540°)

| | |
|---|--|
| <p>I. a ——— 103° b ——— 115 c ——— 96 d ——— 110 e ——— 115 <hr style="width: 100%;"/> 539°</p> | <p>III. a ——— 117° b ——— 109 c ——— 113 d ——— 83 e ——— 103 <hr style="width: 100%;"/> 525°</p> |
| <p>II. a ——— 108° b ——— 109 c ——— 106 d ——— 113 e ——— 99 <hr style="width: 100%;"/> 535°</p> | <p>IV. a ——— 115° b ——— 122 c ——— 124 d ——— 74 e ——— 105 <hr style="width: 100%;"/> 540°</p> |

* Communicated by Rev. Samuel Haughton, M.D.

| | | |
|------|-------|------|
| V. a | ----- | 103° |
| b | ----- | 102 |
| c | ----- | 118 |
| d | ----- | 113 |
| e | ----- | 97 |
| | ----- | |
| | | 533° |

| | | |
|-------|-------|------|
| VI. a | ----- | 105° |
| b | ----- | 127 |
| c | ----- | 128 |
| d | ----- | 83 |
| e | ----- | 91 |
| | ----- | |
| | | 534° |

(C) HEXAGONS (Sum=720°)

| | | |
|------|-------|------|
| I. a | ----- | 142° |
| b | ----- | 137 |
| c | ----- | 86 |
| d | ----- | 119 |
| e | ----- | 130 |
| f | ----- | 109 |
| | ----- | |
| | | 723° |

| | | |
|-------|-------|------|
| II. a | ----- | 106° |
| b | ----- | 116 |
| c | ----- | 130 |
| d | ----- | 110 |
| e | ----- | 130 |
| f | ----- | 124 |
| | ----- | |
| | | 716° |

| | | |
|--------|-------|------|
| III. a | ----- | 115° |
| b | ----- | 129 |
| c | ----- | 123 |
| d | ----- | 127 |
| e | ----- | 121 |
| f | ----- | 164 |
| | ----- | |
| | | 719° |

(D) HEPTAGONS (Sum=900°)

| | | |
|------|-------|------|
| I. a | ----- | 107° |
| b | ----- | 115 |
| c | ----- | 139 |
| d | ----- | 139 |
| e | ----- | 140 |
| f | ----- | 128 |
| g | ----- | 139 |
| | ----- | |
| | | 907° |

| | | |
|--------|-------|------|
| III. a | ----- | 133° |
| b | ----- | 129 |
| c | ----- | 108 |
| d | ----- | 113 |
| e | ----- | 124 |
| f | ----- | 143 |
| g | ----- | 135 |
| | ----- | |
| | | 885° |

| | | |
|-------|-------|------|
| II. a | ----- | 126° |
| b | ----- | 138 |
| c | ----- | 129 |
| d | ----- | 115 |
| e | ----- | 130 |
| f | ----- | 120 |
| g | ----- | 125 |
| | ----- | |
| | | 883° |

| | | |
|-------|-------|------|
| IV. a | ----- | 120° |
| b | ----- | 130 |
| c | ----- | 142 |
| d | ----- | 122 |
| e | ----- | 137 |
| f | ----- | 131 |
| g | ----- | 115 |
| | ----- | |
| | | 897° |

| | |
|---|--|
| V. a ———140° b ———125 c ———143 d ———143 e ———128 f ———117 g ———119 <hr style="width: 100%;"/> 915° | VI. a ———127° b ———118 c ———136 d ———131 e ———122 f ———118 g ———140 <hr style="width: 100%;"/> 892° |
|---|--|

(E) OCTAGONS (Sum=1080°)

| | |
|---|--|
| I. a ———138° b ———130 c ———137 d ———144 e ———130 f ———120 g ———143 h ———140 <hr style="width: 100%;"/> 1082° | III. a ———138° b ———129 c ———144 d ———135 e ———146 f ———138 g ———132 h ———125 <hr style="width: 100%;"/> 1087° |
| II. a ———166° b ———143 c ———138 d ———120 e ———117 f ———139 g ———140 h ———127 <hr style="width: 100%;"/> 1090° | IV. a ———127° b ———140 c ———144 d ———133 e ———131 f ———140 g ———140 h ———115 <hr style="width: 100%;"/> 1078° |

With regard to the relative frequency of the several kinds of columns, Professor O'Reilly, of the Royal College of Science for Ireland, makes the two following estimates:*

1°. Out of 200 columns observed—

| | | |
|-----------|---------|----------------|
| Tetragons | | 3·54 per cent. |
| Pentagons | | 24·75 |
| Hexagons | | 50·50 |
| Heptagons | | 19·19 |
| Octagons | | 2·02 |
| | | 100·00 |

2°. Professor O'Reilly took another and perfectly independent measure by laying down a line of 50^m long, in another part of the Causeway,

* In a letter addressed to Dr. Haughton, 18th June, 1878.

and then counting the number and nature of the Polygons which the line crossed. The result was as follows :—

| | | | | | | |
|-----------|----|----|-----|----|-------|----------------|
| Tetragons | .. | .. | 3 | .. | .. | 1.98 per cent. |
| Pentagons | .. | .. | 47 | .. | .. | 30.73 |
| Hexagons | .. | .. | 72 | .. | .. | 47.00 |
| Heptagons | .. | .. | 30 | .. | .. | 19.63 |
| Octagons | .. | .. | 1 | .. | .. | 0.66 |
| | | | | | <hr/> | |
| | | | 153 | | | 100.00 |