|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Feet.** | **In.** | L. | **Feet.** | **In.** | L. | | **Feet.** | **In.** | L. | | **Feet.** | ⅛. | L, |
| Brought over & | 3 | 0 | 12 | 6 | O |  | 9 | 7 | O |  | IO | 9 | 0 |
| 8 | 3 | O | l6 | *6* | 0 | *2* | 33 | 0 | O | I | 16 | 6 | 0 |
| II | 8 | 3 | *23* | 4 | 6 | 3 | 70 | I | 6 | I | 23 | 4 | 6 |
| 13 | 10 | 3 | *2>7* | 8 | 6 | 4 | IIO | **IO** | 0 | I | 27 | 8 | 6 |
| \*5 | 3 | 0 | 30 | 6 | 0 | *3* | 152 | 6 | 0 | I | 3° | 6 | 0 |
| *16* | 0 | 3 | 32 | 0 | *6* | *6* | 192 | 3 | 0 | I | 32 | 0 | 6 |
| *16* | *5* | 0 | 32 | 10 | *0* | *Ί* | 229 | IO | 0 | 1 | 32 | 10 | 0 |
| 16 | 3 | 0 | 32 | 6 | 0 | 8 | 260 | 0 | 0 | I | 32 | 6 | 0 |
| 15 | 9 | 0 | 31 | *6* | 0 | 9 | 283 | 6 | 0 | I | 3r | 6 | 0 |
| 14 | 10 | 0 | 29 | 8 | 0 | IO | 296 | 8 | 0 | I | 29 | 8 | 0 |
| 12 | IO | 3 | 25 | 8 | 6 | II | 282 | 9 | 6 | I | 25 | 8 | *6* |
| 9 | 8 | 9 | 19 | *5* | *6* | 12 | 233 | 6 | 0 | I | 19 | *3* | *6* |
| 6 | I | 6 | 12 | 3 | *0* | 13 | 159 | 3 | 0 | I | 12 | 3 | 0 |
| 3 | 3 | 0 | 6 | 6 | 0 ( | ∕3×15)∙~4) | ×÷ 44 | 5 | 0 | Of | 3 | 3 | 0 |
| 166 | 6 | 3 | 333 | 0 | 6 |  | 2358 | 3 | 0 |  | 328 | 0 | 6 |

|  |  |
| --- | --- |
| Hence the diſtance of the centre of gravity of double the plane 8 *ck* G from its firſt ordinate 2358.25  ×\*° ° 4- 328.04 × 10'03 = | . 2358 3 G ιs 328 0 6 |
| 72.10 |
| Diſtance of this ordinate from the aft fide of the poſt - | 13.50 |
| Diſtance of the centre of gravity of the plan from the aft fide of the poſt | 85.60 |
| Diſtance of the centre of gravity of double the trapezium AR *c* 8 from its ordinate AR | 7.42 |
| Diſtance of this ordinate from the aft fide of poſt | o.58∙ |
| Diſtance of centre of gravity of trapezium from aft fide of the poſt | - z 8.00 |
| Diſtance of the centre of gravity of the foremoſt trapezium from its ordinate G *k* | 4.22 |
| Diſtance of this ordinate from the aft fide of poſt « . | i53∙78 |
| Diſtance of the centre of gravity of the foremoſt trapezium from the aft fide of the poſt | 158.00 |
| Diſtance of the centre of gravity of the ſection of the poſt from the aft fide of poſt | 0.29 |
| Diſtance of the centre of gravity of the ſection of the ſtem from the aft fide of poſt | 169.76 |
| The areas of theſe ſeveral planes being calculated, will be as follow. |  |
| 3290.2412 for the area of double the plan 8 *ck* G, and its momentum 3290.2412 × 85,6 = | 281644.6467 |
| 31.21 the area of double the trapezium AR *c* 8, and its momentum 31.21 × 8 = | 249.68 |
| 42.43 the area of the foremoſt trapezium, and its momentum 42.43 × 158 = | 6703.94 |
| 0.77 the area of the ſection of the poſt, and its momentum 0.77 ×0.29 ≈ | 0.2233 |
| 0.77 the area of the ſection of the item, and its momentum 0.77 × 169.76 =s | 130.7152 |
| 3365.4212 Sum - - - 288729.2052  288729.2052 . \*  Now . = 85.79, the diſtance of the centre of gravity of the whole ſection from the aft fide of | |
| the ſtern. |  |

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| VI. | | *Determination of* ***th∣*** | f *Centre of Gravity of the fixth Horizontal Seftion.* | | | | | |
| Diſtance of the centre of gravity of double the plan 8 *b i* G from its firſt ordinate 8 *b,* | | | | | | | | |
| Ordinates. | | Double Ord. | I. Factors. | I. Products. | | 2. Fact. | 2. Products. | |
| Feet. In. | L. | Feet. In. L. |  | Feet. | In. L. |  | Feet. In, | , L. |
| I O | 0 | ,2 0 0 | °y | 0 | 4 © | of | I 0 | O |
| 2 5 | O | 4iOO | I | 4 | 10 0 | I | 4 IO | O |
| 4 5 | O | 8 IO O | 2 | Π | 8 0 | I | 8 10 | O |
| 7 3 | 6 | 14 7 o | 3 | 43 | 9 0 | J | 14 7 | O |
| 10 I | 9 | 20 3 6 | 4 | 81 | 2 0 | I | 20 3 | 6 |
| 12 I | 3 | 24 2 6 | *5* | 121 | 0 6 | I | 24 2 | 6 |
| Over 37 4 | 6 | 74 9 0 |  | 268 | 9 <5 |  | 73 9 | 0 |