|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Feet. | In. | L. | **Feet.** | In. | L. | **Feet.** | In. | L. | **Feet.** | | In. | L, |
| Broughtover 37 | 4 | 6 | 74 | 9 | 0 | 268 | 9 | 6 |  | 73 | 9 | 0 |
| ,3 | 3 | 0 | 26 | 6 | 0 6 | 159 | 0 | 0 | I | 26 | *6* | 0 |
| J3 | 9 | 9 | 27 | 7 | 6 7 | 193 | 4 | 6 | I | 27 | 7 | 6 |
| 13 | 7 | 0 | 27 | 2 | 0 8 | 217 | 4 | 0 | 2 | 27 | 2 | 0 |
| 12 | 8 | 0 | 25 | 4 | 0 9 | 228 | 0 | 0 | I | 25 | 4 | 0 |
| ΙΟ | 6 | 6 | 21 | I | 0 10 | 2IO | 10 | 0 | I | 21 | I | 0 |
| 7 | I | 0 | 14 | 2 | O II | i55 | 10 | 0 | I | Μ | 2 | 0 |
| 4 | 7 | 3 | 9 | 2 | 6 12 | IIO | 6 | 0 | I | 9 | 2 | 6 |
| 2 | IO | 6 | 5 | 9 | 0 13 | 74 | 9 | 0 | I | 5 | 9 | 0 |
| I | *6* | 9 | 3 | X | 6×((3×i5)-*4'* | }×⅛ 21 | 4 | 3 | 0y | I | *6* | 9 |
| 117 | 4 | 3 | 234 | 8 | *6* | 1639 | 9 | 3 |  | 232 | *I* | 9 |

|  |  |
| --- | --- |
| Hence the diſtance of the centre of gravity ©£ double the plane 8 *b v* G from its firſt ordinate 8 *b* 13 | |
| **1639 9 3** 163977  •—2χι0 0 4 = .. 47-21 χ lθtθ3 —  232 19 232.14 j | 70.84 |
| Diſtance of this ordinate from aft fide of poſt - - z | i3∙5° |
| Hence the diſtance of the centre of gravity of the plan from the aft fide of the poſt is- | 84.34 |
| Diſtance of the centre of gravity of the trapezium AR3 8 from its ordinate AR | 6.88 |
| Diſtance of this ordinate from the aft fide of the poſt - β \* | 0.58 |
| Diſtance of the centre of gravity of the trapezium from the aft ſide of the poſt | 7.46 |
| Diſtance of the centre of gravity of the foremoſt trapezium from the ordinate G ***i -.*** | 2.92 |
| Diſtance of this ordinate from the aft fide of poſt - - « | i53∙78 |
| Diſtance of the centre of gravity of this trapezium from the aft ſide of the poſt | 156.70 |
| Diſtance of the centre of gravity of the ſection of the poſt from its aft ſide x - | - 0.29 |
| Diſtance ot the centre of gravity of the lection of the item irom the aft fide of the poſt | 169.76 |
| The areas of tlieſe plans will be found to be as follow : |  |
| 2328.3642 for that of double the plan 8 *b iG,* and its momentum 2328.3642 × 84.34 = | i96374∙236<S |
| 21.52 for the area of double the trapezium AR *b* 8, and its momentum 21.52 × 7.46 = | 160.5392 |
| 15.04 the×area of the foremoſt trapezium, and its momentum 15.04 X 156.7 = | 2356.7680 |
| 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 ſtem, and its momentum 0.77 × 169.76 ss | 130.7152 |
| 2366.4642 Sum - “ w - | 199022.4823 |
| Now ~33⅛6'4642 = θ4,1> t^e ^ance t^e centre gravity of the whole from the aft ſide of the poſt. | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | VII. *Determination of the Centre of Gravity of theſeventh Horizontal Sc Ilion.* Diſtance of the centre of gravity of double the plan 8 *a h* G from its firſt ordinate 8 *a,* | | | | | | | | | | | | |
|  | Ordinates. | | | Double Ord. | | | I. Factors. | I. Products. | | 2. Fact. | 2. Products, | | |
|  | **Feet.**  O | **. In.** 8 | L.  0 | **Feet.**  I | In.  4 | L.  O | o⅛ | **Feet,**  O | , In. L,  2 8 | σ⅜ | **Feet.**  O | In.  8 | L,  O |
|  | 1 | I | 6 | 2 | 3 | O | 1 | 2 | 3 o | 1 | 2 | 3 | O |
|  | 1 | 7 | 6 | 3 | 3 | 0 | 2 | 6 | 6 0 | I | 3 | 3 | O |
|  | I | 10 | 9 | 3 | 9 | 6 | 3 | II | 4 ό | I | 3 | 9 | **6** |
|  | 2 | I | 3 | 4 | 2 | 6 | 4 | 16 | io 0 | I | 4 | 2 | 6 |
|  | 2 | **I** | 0 | 4 | 2 | 0 | 5 | 20 | 10 0 | X | 4 | 2 | 0 |
|  | I | IO | 9 | 2 | 9 | 6 | 6 | 22 | 9 0 | I | 3 | 9 | **6** |
|  | I | 8 | 0 | 3 | 4 | 0 | 7 | 23 | 4 0 | I | 3 | 4 | 0 |
|  | I | I | 0 | 2 | 2 | 0 | 8 | 17 | 4 0 | I | 2 | 2 | 0 |
|  | 0 | 9 | 0 | I | 6 | 0 | 9 | 13 | 6 0 | I | X | 6 | 0 |
|  | 0 | 8 | 0 | 1 | 4 | 0 | 10 | 13 | 4 ° | X | X | 4 | 0 |
| Over  6 | 15 | 6 | 9 | 39 | 1 | 6 |  | t48 | 3 *2* |  | 30 | 5 | *a* |