vation, and in the body plan, at equal diſtances from the upper edge of the keel. Then the diſtances between the middle line of the body plan, and the ſeveral points of interſection of theſe lines with the frames, are to belaid off from the middle line in the floor plan upon the correſponding frames ; and if the line drawn through theſe points form a fair curve, the frames are truly drawn in the body plan.

In figs. 30. and 32. there are drawn four water lines at any equal diſtances from the keel, and from each other. Theſe lines are then transferred from fig. 32. to fig. 31; and the lines paſſing through theſe points make fair curves.

The tranſoms are deſcribed by Problem VIII. it is therefore unnecessary to repeat the proceſs. A riſing line of the floor timbers is commonly drawn in the plane of elevation.

As this is intended only as an introductory example, ſeveral particulars have therefore been omitted ; which, however, will be exemplified in the following ſection.

Sect. IV. *To describe the ſeveral Plans of a Ship of War propoſed to carry* 80 *Guns upon two Decks.*

As it is propoſed in this place to ſhow the method of deſcribing the plans of a ſhip of a very conſiderable ſize, it therefore ſeems proper to give the dimenſions of every particular part neceſſary in the delineation of theſe plans. The ſeveral plans of this ſhip are contained in Plate CCCCLXI. figs 33, and 34. But as it would very much confuſe the figures to have a reference to every operation, and as the former example is deemed a ſufficient illuſtration, the letters of reference are upon theſe accounts omitted in the figures.

|  |  |  |
| --- | --- | --- |
| Principal Dimensions. |  |  |
| *Lengths.—* Length on the gun or lower deck from the aft part of the rabbet of the ſtem to the aft part of the rabbet of the poſt | *F.*  182 | In.  0 |
| Length from the foremoſt perpendicular to dead flat | 63 | 11 3/4 |
| Length from the foremoſt perpendicular to timber Y | 4 | 0 |
| Length from after perpendicular to tim­ber 37 - | 3 | 4 |
| Room and ſpace of the timbers | 2 | 8 3/4 |
| Length of the quarter-deck from the aft part of the ſtern | 95 | 0 |
| Length of the forecaſtle from the fore part of the beak-head | 49 | 0 |
| Length of round-houſe deck from the aft part of the ſtern | 51 | 8 |
| *Heights.—*Height of the gun or lower deck from the upper edge of the keel to the under fide of the plank at dead flat | 24 | 0 |
| Height of the gun or lower deck from the upper edge of the keel to the under side of the plank at foremoſt perpendicular | 26 | 3 |
| Height of the gun or lower deck from the upper edge of the keel to the under side of the plank at after perpendicular | 26 | 3 |
| Height from the upper fide of the gun-deck plank to the under fide of the upper deck plank, all fore and aft | 7 | 0 |

|  |  |  |
| --- | --- | --- |
| Height from the upper fide of the upper deck plank to the under side of the greater deck plank abaft | *F.*  *6*  *6* | *In.*  10  11 |
| Height to the under fide of forecaſtle plank, afore and abaft | *6* | 6 |
| Height from the upper fide of the ashorequarter-deck plank to the under ſide of the round-houſe plank abaft | *6*  6 | 9  10 |
| Height of the lower edge of the main wales at foremoſt perpendicular | 24 | 6 |
| Height of the lower edge of the main wales at dead flat | 20 | 0 |
| Height of the lower edge of the main wales at after perpendicular | 26 | 6 |
| Height of the lower edge oſ the channel wales at foremoſt perpendicular | 32 | 6 |
| Height of the lower edge oſ the channel wales at dead flat | 29 | © |
| Height of the lower edge of the channel wales at after perpendicular | 34 | 0 |
| Height of the upper fide of the wing tranſom - | 28 | 4 |
| Height of the touch of the lower counter at the middle line | 33 | *S* |
| Height of the touch of the upper counter at the middle line | 36 | *2* |
| Height of the top-timber line at the after part of the ſtern timber | 44 | 7 |
| *Breadths.—*Main wales in breadth from lower to upper edge | 4 | *6* |
| Channel wales in breadth from lower to up­per edge - | 3 | 0 |
| Waiſt rail in breadth | 0 | 7 |
| Diſtance between the upper edge of the chan­nel wales and the under edge of the waiſt rail - - - | 2 | 9 |
| Sheer rail in breadth | 0 | *6* |
| Diſtance between the ſheer rail and the rail above from timber 13 to the ſtern | 2 | *5* |
| Diſtance between the ſheer rail and the rail above from timber 7 to timber 11 | I | 4 |
| Diſtance between the ſheer rail and the rail above from timber C to the forepart of beak-head | I | 2 |
| And the ſaid rail to be in breadth | 0 | *6* |
| Plank ſheer to be in thickneſs | 0 | 2 1/8 |
| *Gentres of the masts.—* From the foremoſt per­pendicular to the centre oſ the mainmaſt on the gun-deck | 103 | 2 |
| From the foremoſt perpendicular to the centre of the foremaſt on the gun-deck | 20 | *s* |
| From the after perpendicular to the centre of the mizenmaſt on the gun-deck | 28 | *6* |
| *Stem.—*The centre of the ſweep of the ſtem abaft timber P - | 0 | 4 |
| Height of ditto from the upper edge of the keel | 26 | I |
| Stem moulded | I | 3 |
| Foremoſt part of the head afore the perpen­dicular | 2 | 4 |
| Height of ditto from the upper edge of the keel | 38 | 3 |
| *Stern-post. Aft* part of the rabbet afore the |  |  |