timber placed abaft the ſtem, at a diſtance from the stem, equal to that between the others, and the lower end of it may step on the upper edge of the lower rail.

To deſcribe the middle and lower rails, divide the diſtance between the lower part of the main rail and the upper part of the upper cheek equally at every head timber ; and curves being deſcribed through theſe points will form the middle and lower rails. The after end of the lower rail muſt terminate at the after edge of the after head timber.

The cat head ought to be repreſented in ſuch a man­ner as to come againſt the aft side of the head of the main rail, to rake forward four inches in a foot, and to ſteeve up 5 1/2 inches in a foot, and about one foot six inches ſquare. The lower part of it comes on the plank of the deck at the side, and the ſupporter under it muſt form a fair curve to break in with the after end of the middle rail.

The hawſe holes muſt come between the cheeks, which is the moſt convenient place for them ; but their place fore and aft cannot be exactly determined until they are laid down in the half-breadth plan.

The knee of the head is to project from the breaſt of the figure about two inches; and particular care muſt be taken that in forming it downwards it be not too full, as it is then liable to rub the cable very much : it may there­fore have no more ſubſtance under the lower cheek at the heel of the figure than is just ſufficient to admit of the bobſtay holes, and maybe 3⅛ feet diſtant from the ſtem at the load water-line, making it run in an agreeable serpentine line from the breaſt down to the third water line, where it may be 1 1/2 feet from the ſtem. By con­tinuing the same line downwards, keeping it more di­ctant from the ſtem as it comes down, the *gripe* will be formed. The lower part of it muſt break in fair with the under part of the falſe keel ; and the breadth of the gripe at the broadeſt place will be found by the proportions to be 4 1/2 feet. As the aft part of the gripe is terminated by the fore foot, or foremoſt end of the keel, it will now be proper to finiſh that part as fol­lows : From the line repreſenting the upper edge of the keel ſet down the depth of the keel, through which draw a line parallel to the former, and it will be the lower edge of the keel. From that point, where the aft side of the ſtem is diſtant from the upper edge of the keel by a quantity equal to the breadth of the keel at midſhips, erect a perpendicular, which will limit the foremoſt end of the keel ; and the after or lower end of the ſtem may be repreſented by ſetting off the length of the ſcarf from the foremoſt end of the keel, which may be six feet. Set down from the line repre­ſenting the lower edge of the keel the thickneſs of the falſe keel, which is ſeven inches ; and a line drawn through that point parallel to the lower edge of the keel will be the under edge of the falſe keel, the fore­moſt end of which may be three inches afore the fore­moſt end of the main keel.

The head being now finiſhed, proceed next to the ffern, the side and middle timbers of which are already drawn. From the side timber ſet off forward 14 feet, the length of gallery, and draw a pencil line parallel to the side timber ; draw alſo a line to interſect the touch of the upper counter at the side, producing it forwards parallel to the ſheer as far as the pencil line first drawn;

and this line will repreſent the upper edge of the gal­lery rim. From which ſet down eight inches, the breadth of the gallery rail, and draw the lower edge of the rail. At the diſtance of eight inches from the fore side of the side timber draw a line parallel thereto ; and from the point of interſection of this line with the upper edge of the gallery rim, draw a curve to the middle timber parallel to the touches of the upper coun­ter, which line will repreſent the upper edge of the up­per counter rail as it appears on the ſheer draught. The lower edge of this rail may be formed by ſetting off its depth from the upper edge. In the ſame man­ner the lower counter rail may be deſcribed : then take the diſtance between that and the upper counter rail, and ſet it off below the rim rail ; and hence the rail that comes to the lower stool may be drawn, keeping it parallel to the rim rail. Underneath that, the lower finiſhing may be formed, making it as light and agree­able as poſſible.

Set off from the middle timber on the end of the quarter-deck the projection of the balcony, which may be about 2 feet, and draw a line with a pencil parallel to the middle timber. On this line ſet off a point 11/2 inches below the under side of the quarter-deck, from which draw a curve to the side timber parallel to the upper counter rail, which curve will repreſent the lower side of the foot ſpace rail of the balcony as it appears in the ſheer draught.

Take the diſtance between the point of interſection of the upper edge of the upper counter with the mid­dle line, and the point of interſection of the under side of the foot ſpace rail with the middle line, which ſet up on a perpendicular from the upper edge of the rim rail at the foremoſt end. Through this point draw a line parallel to the rim rail to interſect the lower part of the foot ſpace rail, and this line will repreſent the lower edge of the rail that comes to the middle ſtool, and will anſwer to the foot ſpace rail. Then between this line and the rim rail three lights or ſaſhes may be drawn, having a muntin or pillar between each light of about 14 inches broad, and the lower gallery will be finiſhed. Set off the depth of the middle ſtool rail above the line already drawn for the lower edge, and the upper edge may be drawn. Then ſet off the ſame depth above the curve drawn for the lower edge of the foot ſpace rail, and the upper edge of that rail may then be drawn.

The quarter-piece muſt be next deſcribed, the heel of which muſt ſtep on the after end of the middle ſtool. Draw a line with a pencil parallel to the middle timber, and at a diſtance therefrom, equal to the pro­jection of the balcony. Upon this line ſet up from the round houſe deck the height of the upper part of the ſtern or taff rail, which may be four feet above the deck. At that height draw with a pencil a horizon­tal line, and from its interſection with the line firſt drawn deſcribe a curve to the middle ſtool rail, obſerving to make the lower part of this curve run nearly parallel to the side timber, and the lower part about three inches abaft the side timber ; and this curve will repre­ſent the aft side of the quarter-piece at the outſide. There ſet off the thickneſs of the quarter-piece, which is one foot six inches, afore the curve already drawn ; and another curve being deſcribed parallel to it from the lower part to the top of the ſheer, and the quarter-piece