



*Nautical Terms For The
Model Ship Builder*

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for a new Generation”*

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Nautical Terms For The Model Ship Builder

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A

After Body - That part of the ship's body abaft the midships or dead-flat. This term is, however more particularly used in expressing the figure or shape of that part of the ship.

Air Funnel - A cavity framed in the openings of the timbers, to admit fresh air into the ship, and convey the foul air out of it. They are, generally, and should be, placed in the largest openings so as to be clear for passing the air freely.

Amidships - In or toward the part of a boat or ship midway between the bow and the stern; also midway between port and starboard sides; toward the middle of the ship or boat.

Anchor - (1) A heavy metal object, fastened to a chain or line, to hold a vessel in position, partly because of its weight, but chiefly because the designed shape digs into the bottom. (2) The act of using an anchor.

Anchor Ball - A black ball visible in all directions, displayed in the forward part of a vessel to indicate that the vessel is anchored. **Anchor Bed** - Chocks which hold and anchor in place either in a locker or on deck.

Anchor Bend - A type of knot used to fasten an anchor to its line.

Anchor Buoy - A small buoy that is used to mark the position of an anchor. It is attached to the base or crown of an anchor and can be used to recover the anchor if it has to be cast adrift, or to trip it if it becomes wedged.

Anchor Light - A white light, usually on the masthead, visible from all directions, used to indicate that a vessel is anchored.

Anchor Lining - The short pieces of plank, or of board, fastened to the sides of the ship, or to stanchions under the fore channel, to prevent the bill of the anchor from tearing the ship's side. when fishing or drawing up the anchor. It is only used in the navy, and many ships upon which it was fitted have lately had it taken away.

Anchor Warp - A hawser or line attached to an anchor.

Anchor Windlass - A windlass is a winch-like device used to assist in the raising of the anchor.

Anti-Gallicans - A pair of additional backstays temporarily rigged to provide extra support to the masts of square rigged vessels when sailing downwind.

Apostles - Large bollards affixed to the main deck near the bow of a square rigged vessel around which hawsers or anchor cables were belayed.

Appendage - A rudder, keel, centerboard, or skeg.

Apron - A strengthening timber behind the lower part of the stem and above the foremost end of the keel in a wooden vessel.

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Aspect Ratio - The relationship (ratio) between the sails height (luff length) and length along the foot. High aspect ratio means a sail that is tall and narrow, low aspect ratio is a short, squat sail. A high aspect ratio sail is very efficient in sailing close to the wind.

Astern - Backwards, somewhere behind the vessel, towards the stern; in the direction of, or behind, the stern; opposite of ahead.

B

Baby Stay - Secondary forestay supporting the leading edge of the mast and used to flatten the mainsail in building winds.

Back Splice - A splice formed when a crown knot is made in the end of a piece of line and the ends are woven three times or more into the standing part of the line to keep it from unraveling.

Backspring - A spring line from the stern of a boat to mid ships to stop forward movement

Backstay - Standing or running (adjustable) wire rigging that supports the mast from the stern; a wire mast support leading aft to the deck or another mast.

Badge - A sort of ornament fixed on the quarters of small vessels near the stern, and containing, either a sash for the convenience of the cabin, or the representation of it. It is commonly decorated with carved work, as marine figures, martial instruments.

Baggywrinkle - Tassels of unraveled line, yarns, etc. which are lashed around chafe spots such as spreaders to prevent chafe on sails.

Bag of Head Rails - The lowest part of the head-sails, or that part which partakes of the horizontal position.

Bailers - Openings in the bottom or transom of a boat to drain water when sailing.

Balance Frames - Those frames of a ship's hull which are equal in area, one forward and one aft of the ship's center of gravity.

Balcony - The gallery in the stern of large ships.

Bale - A metal ring on a boom, pole or mast where blocks or shackles may be attached.

Ballast - Weight at the bottom or the lower portion of the boat to give her stability and/or to provide satisfactory fore and aft trim.. Ballast can be place inside the hull of the boat or externally in a keel. Heavy substances can be loaded by a vessel to improve stability, trimming, sea-keeping and to increase the immersion at the propeller. Sea water ballast is commonly loaded in most vessels in ballast tanks, positioned in compartments right at the bottom and in some cases on the sides,

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called wing tanks. On a tanker, ballast is seawater that is taken into the cargo tanks to submerge the vessel to a proper trim.

Ballast Tanks - Tanks carried in various parts of a ship for water ballast, for stability and to make the ship seaworthy.

Balusters - The ornamental pillars, placed along, or in front of, the balcony in the stern and quarters of large ships.

Bark - A name given to small ships, especially to ships, having no head-rails, and to such as have three masts without a mizzen top-sail.

Barque (Also Bark) - A sailing ship with three to five masts, all of them square-rigged except the after mast, which is fore-and-aft rigged.

Barquentine - Sailing vessel with three or more masts. Square rigged on foremast, fore and aft rigged on all others.

Base - The foot or lowest part of a pillar; or that part of a body over which rests, or is designed to rest.

Batten - A thin, flexible wooden or plastic strip inserted into a pocket (batten pockets) on the back part (leech) of a sail to stiffen it and assist in keeping its form.

Batten Pockets - Pockets in a sail where battens can be placed to stiffen the sail.

Beak - Name given to the metal point or ram fixed on the bows of old war galleys and used to pierce the hulls, and thus sink or disable enemy ships.

Beak-Head - The short platform at the fore-part of the upper-deck, in large ships, placed at the height of the ports from the deck, for the convenience of the chase-guns. Its termination aft is the bulk-head called the beak-head bulk-head, which encloses the fore-part of the ship.

Beak-Head Beams - is the broadest beam in the ship, generally made in two breadths, tabled and bolted together. The fore-side is placed far enough forward to receive the heads of the stanchions of the beak-head bulk-head.

Beak-Head Carlings - Large carlings which are used to frame the beak-head instead of a collar beam.

Beam - (1) The transverse measurement of a boat at its widest point. Also called breadth. (2) One of the transverse members of a ship's frames on which the decks are laid.

Beam Line - A line rated along the inside of the ship, fore and aft, skewing the upper sides of the beams at the side of the ship.

Becket - A loop or a small eye in the end of a rope or a block.

Bee - A ring or hoop of metal.

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Bee Blocks - Wooden swells on each side of the after end of a boom, having sheaves through which to lead the leech reefing pendants.

Bees of the Bowsprit - Pieces of hard wood bolted to the outer end of a bowsprit through which are rove the foretopmast stays before they are brought in to the bows and secured.

Belaying Pin - Iron or wood pin fitted into racks, around which lines can be belayed or secured.

Belfry - An ornamental framing, made of stanchions at the after beams of the forecandle, with a covering or top, under which the ship's bell is hung. In large ships the stanchions are supported by knees. In small ships it is frequently built over the windlass.

Bell - Traditionally a ship's bell is made of brass and has her name engraved on it. It is used for striking the bells which mark the passage of time (see Bells) and is also used as a fog signal as an audible warning of a ship's position.

Bell Rope - A short piece of line spliced into the end of the clapper by which the bell is struck. Traditionally it is finished off with a double wall knot crowned in its end.

Bend - A type of knot used to connect a line to a spar or another line, a sail to a spar, or a line to a sail. Also the act of using such a knot. (2) To swing your body when pulling on an oar - "bend to your oars".

Bermuda Rig - A sail plan in which the main and/or mizzen, or the foresail of a schooner, is of triangular shape, very long in the luff and set from a tall mast. This is almost now universal in all sailing yachts.

Best Bower - Term used in the days of sail to indicate the starboard of the two anchors carried at the bow of a ship. The anchor on the port side was known as the small bower (although they were the same size).

Bibbs - Pieces of timber bolted to the hounds of a mast of a square rigged ship to support the trestle trees.

Bight - (1) The part of a line between the ends. (2) A loop in a line. (3) An indentation in the coastline lying between two promontories, larger than a bay.

Bilge Pump - A mechanical, electrical, or manually operated pump used to remove water from the bilge.

Bills - The ends of compass or Knee Timber.

Binnacle - A wooden case, or chest, which contains the compasses and the lights to skew them, by night. It is divided into three compartments, with sliding shutters. Those at the side have a compass in each, and that in the middle is fitted to hold a lamp, or candles, which emit light on the compasses through a pane of glass on each side. In small vessels it is sometimes fixed before the companion, and the lights put in from the captain's ladderway, without going upon deck. On the deck of a ship of war there are always two binnacles, one for the use of the man who steers, and the other for him who cons, or superintends the steerage.

Bird's Nest - A small round platform, smaller than a Crow's Nest, which was placed at the top of the mast to provide a greater range of vision from a ship at sea.

Bitt - A frame of oak timber, whereon the cables or ropes are occasionally fastened. It consists of two upright pieces of oak, called Bitt-pinnas, when the bitts are large, or of knees, when the bitts are small, with a cross-piece fastened horizontally thwartships near the head of them. The largest Bitts are commonly called the Riding Bitts, and are those to which the cables are fastened, when the ship rides at anchor. There are also small Bitts to belay ropes to, as the Bow-line and Brace Bitts, situated near the masts; the Fore Jear and Topsail Sheet Bitts, situated on the forecastle, and round the foremast; the Main Jear and Topsail Sheet Bitts, which tendon into the foremost beam of the quarter deck. The Bitts round the mizzen mast are generally formed with knees, and have sheave-holes for the topsail sheets.

Bitt Pins - The upright pieces of oak timber, let in and bolted to the beams of two decks at least, and to which the Cross-pieces are let on and bolted.

Block - (1) A wooden, metal or plastic case in which one or more sheaves (pulleys) are placed, through which turns of line (falls) are threaded for the purpose of gaining mechanical advantage or changing the direction of motion. Lines used with a block are known as tackle. (2) The large piece of elm out of which the figure is carved at the head of the ship.

Block and Tackle - A combination of one or more blocks and the associated tackle necessary to give a mechanical advantage. Useful for lifting heavy loads.

Blooper - Light-weight foresail similar to a spinnaker but set without a pole.

Boat Hook - A long sturdy pole fitted with a blunt hook at one end designed to catch a line when coming alongside a pier or mooring, to facilitate putting a line over a piling, recovering an object dropped overboard, or in pushing or fending off.

Bobstay - A stay from the stem of a boat to the end of the bowsprit used to counteract the upward pull of the forestay.

Bobstay Holes - Holes cut through the fore part of the knee of the head, between the cheeks, large enough to admit the bobstay-collars, to which the bobstays are set up for the security of the bowsprit.

Bollard - A large solid post on a wharf or pier for securing mooring lines; the same when constructed on the deck of a ship.

Bolster - A piece of wood fitted in various places to act as a preventative to chafe.

Bolt Rope - A rope sewn into the luff or foot of a sail for use in attaching to the mast or boom.

Bomb-bed Beams - The beams which support the bomb-bed in bomb-vessels.

Bomb-vessel - A vessel of war, particularly designed for throwing shells from mortars. It was invented by the French, and said to have been first used in the

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bombardment of Algiers. Prior to that time the throwing of shells from sea was supposed impossible.

Bonaventure - On older sailing ships, an additional lateen shaped mizzen sail carried on the fourth mast, known as a bonaventure mizzen.

Booby Hatch - The cover of a scuttle-way or small hatchway which leads to to or from a store room, cabin of small craft, crew's quarters, the forecastle or fore peak.

Boom - A horizontal pole or spar attached to the mast to which the foot (lower edge) of the sail is fastened.

Boom Crotch or Crutch - A notched support for the boom when the sail is not raised. Unlike a gallows frame, a crutch is stowed when boat is sailing.

Boom Preventer - A block and tackle attached to the boom and the deck to prevent the main from gybing when sailing downwind.

Boom Vang - Any system, usually block & tackle or hydraulic, used to hold the boom down. This is useful for maintaining proper sail shape by exerting a downward pull on the boom, particularly when running or on a broad reach.

Boomkin - A stern sprit or spar extending from the stern.

Booms - On larger sailing vessels, the space between the foremast and mainmast where spare spars were stored.

Boot Stripe or Boot Top - A painted stripe along the waterline delineating the topside from the bottom paint.

Boss - The swell of a ship's hull around the propeller shaft.

Boss Plate - A curved plate covering (one on each side) the boss of a propeller post and the curved portion of frames in way of the stern tube of a screw steamer. This plate is of extra thickness.

Bosun's Chair - Canvas or wood seat attached a halyard to raise and lower someone to work on the mast

Bottlescrew - see Turnbuckle.

Bow - The forwardmost or front part of the vessel. Opposite of Stern.

Bow Line - A docking line leading from the bow.

Bowline - A knot use to form an eye or loop at the end of a rope. A knot with many uses, it is simple and strong, its loop will not slip, and it is easily untied after being exposed to a strain. also see Running Bowline.

Bowsprit - A spar which projects forward from the bow of some boats, and extends the sail plan by allowing the headsails to be secured further forward.

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Boxing - A projection of wood formerly left on the hawse-pieces, in wake of the hawse-holes, and which projected as far out as the plank inside and out. This method of fitting the hawse-holes is now, however, generally laid aside; as, among other advantages which attend the present practice, it is found that, as the method of boxing consumed an unnecessary quantity of large timber, this expense is now avoided; beside which, the planks, without boxing, run forward to the stem, and thereby strengthen the bow. The purpose of boxing is much better answered by a pipe of lead let through the holes, and turned with a flap inside and out, the undersides of which are the thickest, to allow for the wearing of the cable.

The term BOXING is also applied to the scarp of the lower piece of stem, let flat wise into the forefoot.

Braces - On square rigged ships, lines or cables attached to the ends of each yard; these are used to pivot (brace) the yards around the mast at different angles to the fore-and-aft line of the ship to make the most of the wind.

Brackets - Short crooked timbers, resembling knees, for support or ornament. The HAIR-BRACKET is the boundary of the aft part of the figurehead, and its lower part finishes with the fore part of the upper deck. The CONSOLE BRACKET is a light piece of ornament, at the fore part of the quarter gallery, sometimes called a CANTING-LEVER.

Brails - Lines used to pull the outer edge (leech) of a fore-and-aft sail forward to a mast. These lines are used to temporarily furl the sail.

Breadth - See Beam

Bread Room - A place parted off below the lower deck, close abaft, for the reception of the bread. It should always be very completely covered with tin or other metal not so liable to corrode.

Break of the Poop - The forward end of a ship's after superstructure, where the poop deck descends to the upper deck.

Breast Hook - An athwartship or horizontal member running between the inside surfaces of the hull.

Breast Line - A docking line going at approximately a right angle from the boat to the dock, preventing movement away from the dock. Also known as a Waist Line.

Breast Rail - The upper rail of the balcony, or of the breast-work at the fore part of the quarter deck.
The stanchions, with their rails, at the fore part of the quarter-deck. The breast-work fitted on the upper deck of such ships as have no quarter-deck serves to make a separation from the main-deck.

Breech of a Block - The part of a block which is opposite the swallow, which is where the line enters.

Bridge - The location from which a vessel is steered and its speed controlled; navigation and command center of the vessel.

Bridge Deck - The transverse partition between the cockpit and the cabin.

Bridge House - The erection or superstructure fitted about amidship on the upper deck of a ship. The officer's quarters, staterooms and accommodations are usually in the bridge house.

Brig - A two-masted vessel with both masts square rigged. On the sternmost mast, the main mast, there is also a gaff sail.

Brigantine - A two-masted vessel with foremast square rigged, and mainmast fore and aft rigged. Originally, a ship of brigands, or pirates.

Brow - A gangway or gangplank. Used to cross from one ship to another, or from a ship to a pier.

Bucklers - Pieces of elm plank barred close against the inside of the hawse-holes, to a cant below and under the hook above, to prevent the water from coming in. Those used at sea, denominated BLIND-BUCKLERS, have no aperture; but those used in a harbor, when a ship is at anchor, and called RIDING-BUCKLERS, are made in two pieces, the upper piece rabbeting on the lower piece at the middle of the hawse-hole, and the two pieces, when joining, have a hole in the middle, large enough to admit the cable.

Bulkhead - The various partitions which separate one part of a ship from another. Those in the hold are mostly built with rabbetted or cyphered plank, as are those of the magazine, to keep the powder securely from the cargo, ballast, or stowage in the hold. Thus likewise are the fish and bread-room bulkheads. Those upon the decks are mostly to separate the officers from the seamen; as the ward-room bulkhead, which is composed of doors and panels of joiner's work. Thus, also, the cabin and screen bulkheads, in large ships, enclose the cabin from the walk abaft, or balcony; and, forward, the gallery is enclosed by the beak-head bulk-head.

Bulwark(s) - A railing around the deck of a boat to keep things from going overboard and the seas from coming aboard; the strake of shell plating above a weather or shelter deck; the part of a ship's side that extends above the main deck to protect it against heavy weather.

Bumkin - A projecting piece of oak or fir, on each bow of a ship, fayed down upon the false-rail, or upper rail of the head, with its heel cleated against the knight-head in large, and the bow in small ships. It is secured, outwards, by an iron strap, and rod or rope lashing, which confine it downwards to the knee or bow. It is used for the purpose of hauling down the fore-tack of the fore-sail.

Bunt - (1) The middle part of a square sail. (2) The line(s) attached to the middle of the foot of the sail used to haul the bunt up to the center of the yard.

Buoy - (1) A floating object employed as an aid to mariners to mark the navigable limits of channels, their fairways, sunken dangers, isolated rocks, etc. (2) an anchored float marking a position or for use as a mooring.

Bushed - Cased with harder metal, as that inserted into the holes of braces or sheaves to prevent their wearing, and, consequently, to take off friction.

Butt - The squared end of a plank used on the side of a wooden vessel where it is secured to the timbers.

Buttock - The breadth of a ship where the hull rounds down to the stern.

C

Cabin - A room or living compartment for passengers or crew.

Cabin Sole - The floor or bottom surface of the enclosed space under the deck of a boat.

Caboose - (1) Old term for the galley of a vessel situated normally on the deck and not between decks. (2) A small shifting kind of shed or galley, to cover the fire place of some merchant ships. It generally stands against the barricade on the fore-part of the quarter-deck, or shifts occasionally.

Callipers [Calipers] - Compasses with circular legs, for taking correctly the diameter or size of the timber. There is a smaller sort for taking the diameter of bolts or any thing cylindrical.

Canoe Stern - A pointed stern, such as those on a canoe.

Cant Frames - Angled frames in the extreme forward or aft ends of a ship which form the sharp ends of the vessel's hull.

Canting - The act of turning any thing completely over, so that the under surface shall lie upwards. It is otherwise said to be half or quarter canted.

Canting Lever - The same as console bracket.

Cap - A piece of trim, usually wood, used to cover and often decorate a portion of the boat, i.e., caprail.

Capstan - A revolving cylindrical device used for heaving in lines or anchors - A vertical, spool-shaped rotating drum around which cable, hawser or chain is wound for hoisting anchors, sails and other heavy weights. A capstan rotates around a vertical axis, as opposed to a windlass, which revolves around a horizontal axis.

Caravel - Small trading vessel also used for exploration. Three-masted, being square-rigged on the two forward masts, and having a lateen rigged mizzen mast. Christopher Columbus' small squadron, the Santa Maria, Pinta, and Nina, were all Caravels, as were Magellan's ships in his famous circumnavigation.

Cargo Hatch - An opening in a ship's deck for the loading and discharging of any kind of cargo.

Carline or Carling - Timbers used to support the deck planking of a wooden ship; also for supporting hatches.

Carlins - Structural pieces running fore and aft between the beams.

Carrack - Old three-masted trading vessel which was square-rigged on the fore and main masts, and lateen rigged on the mizzen mast. Similar to the Caravel, but larger and more robust.

Carrick Bend - A knot used to tie two lines together.

Cast-to - To stretch over any thing, as [CAST-KNEES]

Cast-Knees - or those hanging-knees which croak or arch over the corner of a gunport, rider.

Catamaran - A multihull with two hulls separated by a deck or crossbeams from which a trampoline is suspended; abbreviated "cat."

Catboat - A small boat with the mast stepped far forward, carrying a single sail.

Cat-Beam - is the broadest beam in the ship, generally made in two breadths, tabled and bolted together. The fore-side is placed far enough forward to receive the heads of the stanchions of the beak-head bulk-head.

Cathead - On older sailing ships, a heavy piece of curved timber projecting from the bow for the purpose of holding anchors in position for letting go or for securing them after weighing.

Catenary - The curve (sag) of a rope, cable or chain hung between two points such as the anchor rode or towing line; the deeper the curve, the more catenary.

Catharpings - In square-rigged vessels, short lines at the lower end of the futtock shrouds used to bring in the shrouds tighter to give room to brace the yards at a sharper angle when sailing close hauled.

Cats-tail - The inner part of the cathead, that fays down upon the cat beam, in large ships, and under the forecandle beams of smaller ships.

Catwalk - On a ship, a raised bridge running fore and aft from the midship, and also called "walkway". It affords safe passage over the pipelines and other deck obstructions.

Caulking/Calking - Forcing material into the seams of the planks in a boat's deck or sides to make them watertight; the material itself. Oakum was once the material used for this purpose, and was then sealed with hot pitch to prevent it from rotting. Today there are polymers used for sealing all kinds of fittings.

Center of Buoyancy - A point through which all buoyant forces on an immersed hull are assumed to act. Center of Effort (CE) - Point at which all of the force of the wind can be thought to concentrate; the point in the sail plan that is the balance point for all the aerodynamic forces.

Center of Lateral Resistance (CLR) - Center point of all underwater area of the hull where the hull's lateral resistance can be said to be centered.

Centerboard Trunk - Watertight housing for the centerboard.

Centerline - The imaginary line running from bow to stern along the middle of the boat.

Chafing Gear - Canvas, cloth, leather, tubing, rubber or other material placed around a line or cable to protect it from wear and abrasion.

Chain Locker - The compartment, near and below the hawse holes at the bow, for stowing the anchor chains; a compartment in the lower part of a ship for stowing an anchor chain.

Chain Plate - A metal plate, strap, or rod bolted to the hull structure to which the lower ends of shrouds and stays are attached.

Channel - A wood or steel ledge projecting from a sailing ship's sides to spread the shrouds and keep them clear of the gunwales.

Charley Noble - Galley smokestack or chimney.

Chase - A score cut lengthwise for a tendon to be fixed in, as the tendon at the heels of pillars. Ledges may be chased-about into the carlings, or the carlings into the beams, by cutting the score or chase large enough at one end for it to sweep about into its place.

Chase Ports - The ports at the bows, and through the stern of the ship. The former are made for the purpose of firing at an enemy a-head, and are called bow-chasers. The latter for the purpose of firing upon an enemy in pursuit, or for dismasting an enemy that may lie athwart the stern, in order to rake the ship.

Cheek Block - A block with one end permanently attached to a surface.

Cheeks - (1) The two sides of a block. (2) Knees of oak timber which support the knee of the head, and which they also ornament by their shape and moldings. They form the basis of the head, and connect the whole to the bows, through which and the knee they are bolted.

Chestree - Pieces of oak timber, fayed and bolted to the topsides, one on each side, abaft the fore-channels, with a sheave fitted in the upper part for the convenience of hauling home the main-tack. Its true situation is half the length of the main-yard before the centre of the man-mast.

Chock - (1) A deck fitting to guide an anchor, mooring, towing or docking line. Usually smooth shaped to reduce chafe. (2) A wedge or block to keep an object from moving. Chock-a-Block - When a line is pulled as tight as it can go, as when two blocks are pulled together so that no further movement is possible (also known as "Two blocked").

Chord - An imaginary line drawn between the luff and leech of a sail. The chord depth is an imaginary line drawn to the deepest part of the sail from the chord. The ratio of chord depth to chord length represents the sail's draft - a high ratio indicates a full sail; a low ratio, a flat sail.

Chute - An opening in the deck near the bow from which the spinnaker is hoisted. Spinnakers are also often referred to as chutes.

Class - General category into which boats of the same or similar design are grouped for racing. **Classification Society** - Worldwide experienced and reputable societies which undertake to arrange inspections and advise on the hull and machinery of a ship. A private organization that supervises vessels during their construction and afterward, in respect to their seaworthiness, and the placing of vessels in grades or "classes" according to the society's rules for each particular type.

Claw Ring - A "C" shaped fitting which can be slipped over the boom, for example, when the sail has been roller reefed to allow the boom vang to be reattached.

Cleat - A fitting of wood or metal, secured to the deck, mast, or spar, with two horns around which ropes are made fast. The classic cleat to which lines are belayed is approximately anvil-shaped; verb - to belay.

Clevis Pin - A large pin that secures one fitting to another.

Clew - The lower aft corner of a fore and aft sail, both lower corners of a spinnaker, and the lower corners of a square sail.

Clew Outhaul - The tackle used to adjust the clew in and out on the boom.

Clincher Built - A term applied to the construction of some vessels and boats, when the planks of the bottom are so disposed, that the lower edge of every plank overlays the next under it, and the fastenings go through and clinch or turn upon the timbers.

Clinching or Clenching - Spreading the point of a bolt upon a ring. by beating it with a hammer, in order to prevent its drawing.

Clipper - A sharp-bowed sailing vessel of the mid-19th century, having tall masts and sharp lines; built for great speed; the generic name used to describe types of fast sailing ships.

Close-Quarters - Strong barriers, or bulkheads, stretching athwart a merchant ship, in several places, and behind which the crew may retreat when boarded by an enemy. They are therefore fitted with several loop-holes, through which the small arms may be fired, with other conveniences for the defense of the ship, and the annoyance of the adversary.

Clothing - Various pieces of rigging which hold a bowsprit in position.

Clove Hitch - Two half hitches around a spar or post. Easy way to make a line temporarily fast to a piling or post. The clove hitch can jam under heavy tension, making it difficult to untie. Worse, is its tendency to untie itself when subjected to repeated strain and release, such as a boat rocking in waves. You can add one or two half hitches on the standing line for a more secure attachment.

Club - A boom on a jib or staysail.

Coach or Couch - An apartment before the captain's cabin.

Coach Roof - The cabin roof, raised above the deck to provide headroom in the cabin. Also trunk.

Coachwhipping - Decorative ropework with an even number of strands to form a herring-bone pattern.

Coaming - A low vertical lip or raised section around the edge of a cockpit, hatch, etc. to prevent water on deck from running below.

Coaming Carlins - Those carlings that enclose the bomb-beds of bomb-vessels, and which are called carlings because they are shifted occasionally.

Cockpit - (1) The location from which the boat is steered, usually in the middle or at the stern of the boat. (2) That part of the after platform, under the lower deck, between the store-rooms, where the wounded are taken down to be dressed in time of action, and where the surgeon has a repository for his medicines.

Cockpit Sole - Floor of the cockpit.

Coffee Grinder - A large and powerful sheet winch.

Collier - Vessel used for transporting coal.

Collar Beam - is the beam upon which the stanchions of the beak-head bulk-head stand. The upper side of it is kept well with the upper side of the upper deck port-sills, and lets down upon the spirketting at the side. But its casting over the bowsprit, in the middle, giving it a form which in timber is not to be gotten without difficulty, a framing of two large carlings, and a stanchion on each side of the bowsprit, is now generally substituted in its place.

Collision Bulkhead - A watertight bulkhead at the forepeak extending to main deck. This bulkhead prevents the entire ship from being flooded in case of a collision.

Collision Mat - A large square of heavy canvas fitted with lines to allow it to be drawn under the hull of a ship where it is damaged. The pressure of the seawater holds it tight against the ship and greatly reduces the inflow of water. Colors - National flag or insignia flown by a ship at sea.

Come Up, To - To cast loose the forelocks or lashings of a set, in order to take in closer to the plank.

Companion Way - In ships of war, the framing and sash lights upon the quarter-deck or round-house, through which the light passes to the commander's apartments; and, from the upper deck to the gun or mess room in frigates. In merchant ships it is the birthing or hord round the ladder-way, leading to the master's cabin, and in small ships is chiefly for the purpose of keeping the sea from beating down.

Compartments - The spaces between the transverse bulkheads of a ship.

Compression Post - A vertical post, supporting the coach roof or deck, between a deck-stepped mast and (usually) the keel.

Con - Station, usually on the bridge, from which a ship is controlled; the act of so controlling.

Conversion - The art of lining and molding timber, plank, with the least possible waste, and one that the student can never make himself too well acquainted with.

Coping - (1) Turning the ends of iron lodging knees so that they may hook into the beams. (2) A part of the stern; the lower counter being that arched part of the stern immediately above the wing transom. Above the lower counter is the second counter, the upper part of which is the under part of the lights or windows. The counters are parted by their rails, as the lower counter springs from the tuck-rail, and is terminated on the upper part by the lower counter-rail. From the upper part of the latter, springs the upper or second counter, its upper part terminating in the upper counter rail, which is immediately under the lights.

Copper Sheathing - Thin sheets of copper applied to the hull of a wooden ship below the waterline to prevent the toredo worm eating the planks, and also to limit the growth of weed, barnacles or other marine life.

Cordage - Any rope or line.

Counter Mould - The converse of the mould. If, when a piece of timber, molded on both sides, as the keelson, breast-hooks, riders, is intended to fay at once, the operation is performed thus: after one edge is accurately trimmed to the mould, the windings or beveling are taken square from the piece, and accurately applied to the part to which it is to be fayed, and one or sometimes three square spots set off on the counter-side. Then the counter-mould, after being exactly fayed, and the square spots marked, is laid on the piece, to answer the corresponding square spots there; and, they agreeing, the piece may be trimmed through to the first molding edge, and will not fail to answer. If there should be waness on the piece, the mould had better be tacked fast to the side of the piece, and the edge of the mould taken square in; and, to be the more exact, the raze, or the wood to the edge of the mould, had better be taken away with a chisel, and dubbed through afterwards.

Counter Rails - The ornamented rails athwart the stern, into which the counters finish.

Counter Timbers - The right-aft timbers which form the stern. The longest run up and form the lights, while the shorter run up only to the under part of them, and help to strengthen the counter. The side counter timbers are mostly formed of two pieces, scarped together in consequence of their peculiar shape, as they not only form the right-aft figure of the stern, but partake of the shape of the top-side also. Sometimes those right-aft are made in two.

Cove - The arched molding sunk in at the foot or lower part of the taffarel.

CQR Anchor - An anchor that is designed to bury itself into the ground by use of its plow shape. Also called a plow anchor.

Nautical Terms For The Model Ship Builder

Crab - A smaller sort of capstan, formed of a wooden pillar, and three or more small whelps, whose lower end works in a socket, whilst the middle traverses or turns round in partners which clip it in a circle. Above the whelps are two holes to receive bars, that act as levers, and by which it is turned round. It serves as a capstan for raising of weights.

By a machine of this kind, so simple in its construction, may be heaved up the frame timbers of vessels when building. For this purpose it is placed between two floor timbers, while the partners which clip it in the middle may be of four or five inch plank fastened on the same floors. A block is fastened beneath in the slip, with a central hole for its lower end to work in.

Besides the crab described here, there is another sort which is shorter and portable. The latter is fitted in a frame composed of cheeks, across which are the partners, and at the bottom a small platform to receive the spindle.

Cradle - A strong frame of timber. placed under the bottom of a ship in order to conduct her steadily in her ways till she is safely launched into water sufficient to float her.

Cranks - Pieces of iron, shaped as an elbow. and attached to the beams of the quarter-deck for the capstan bars to be stowed thereon; they are sometimes fitted to stow the bars under the boat skids. Others are drive in the upper part of the taffarel, to support the stern lanterns.

Cribbing - Timbers used to support bottom of ship while it is under construction.

Cringle - A large reinforced eye in the leech and clew of a sail that allows a line to fasten to it; e.g., the reef cringle and clew cringle.

Croaky - A term applied to plank when it curves or compasses much in short lengths.

Cross Bracing - Iron or steel straps fastened diagonally across a ship's frames to make a rigid framework.

Cross Bored - Bored with holes alternately on the edges of planks. to separate the fastenings, so as to avoid splitting the timbers or beams.

Cross Chocks - are larger [than CHOCKS?] pieces of oak timber fayed across the dead-wood and heels of the first-futtocks, to make them equal in height with the floor. In merchant ships they are seldom used. Elm for this purpose may be used with the same advantage as oak, as along the midships it will be equally durable, and is less liable to split.

Cross Spales - Deals, or fir plank, nailed in a temporary manner to the frames of the ship at a certain height, and by which the frames are kept to their proper breadths, until the deck-knees are fastened. The main and top-timber breadths are the heights mostly taken for spaling the frames, but the height of the ports is much better; yet this may be thought too high if the ship is long in building, or the ground not to be depended upon.

Cross-Jack Yard - The lower yard on a mizzen mast of a square-rigged ship.

Nautical Terms For The Model Ship Builder

Crosstrees - Small horizontal spars extending athwartships from one or more places along the mast. The shrouds cross the end of these "spreaders", enabling the shrouds to better support the mast.

Crow - An iron lever, used to prize about the timbers, or any weight, particularly when in such a situation as not to be handled. Crows are of various sorts; some are opened at the end, with a claw for drawing nails, others have a moveable staple at the end for drawing small bolts or large nails. The latter are commonly called Engine Crows.

Crown - A knot formed by taking the strands of the end of a line and tucking them over and under each other to prevent them from unraveling.

Crow's Nest - A platform and protective coaming setting high up on a mast, to accommodate the look-out aloft while the ship is at sea.

Crutches - The crooked timbers fayed and bolted upon the foot-waling abaft, for the security of the heels of the half-timbers. Also stanchions of iron or wood, whose upper parts are forked to receive rails, spare masts, yards, and which are fixed along the sides and gangways.

Cuddy - A small sheltered cabin on a boat.

Cunningham - A line used to control the tension along a sail's luff in order to maintain proper sail shape. Current - Horizontal movement of the water caused by tidal change, wind, river movement, or circular currents caused by the motion of the earth.

Cup - A solid piece of cast iron, let into the step of the capstan, and in which the iron spindle works which is at the heel of the capstan.

Cut - The shape or design of a sail.

Cut Splice - Two lines spliced together to form an eye.

Cutlass Bearing - The bearing surrounding the propeller shaft where it exits the hull.

Cutter - A single masted sailboat similar to a sloop except sails are arranged so that many combinations of areas may be obtained. A sail plan with two headsails, a main jib and a smaller staysail set between the jib and the mast.

Cutting Down Line - The elliptical curve line, forming the upper side of the floor timbers at the middle line of the ship. Also the line that forms the upper part of the knee of the head, above the cheeks.

Cutwater - The forward curve of the stem of a ship.

D

Daggerboard - Similar to a centerboard, except that it is raised and lowered vertically in a trunk rather than pivoted. Like a keel, daggerboards are used to reduce leeway by preventing a sailboat being pushed sideways by the wind.

Dagger Knees - Knees to supply the place of hanging knees. Their side arms are brought up aslant, or nearly to the underside of the beams adjoining. They are chiefly used to the lower deck beams of merchant ships, in order to preserve as much stowage in the hold as possible. Any straight hanging knees, not perpendicular to the side of the beam, are in general termed dagger knees.

Danforth Anchor - A brand of lightweight anchor. It has pivoting flukes that dig into the ground as tension is placed on the anchor.

Davit(s) - A small crane that projects over the side of the boat to raise or lower objects (such as smaller boats) from or to the water.

Dead-Doors - Doors made of whole deal, with slit deal lining, fitted in a rabbet to the outside of the gallery doors, and bolted within side, to prevent the water from flowing into the ship in case the quarter gallery should be carried away.

Deadeyes - Circular blocks in the shrouds or stays to adjust tension.

Dead-Flat - A name given to that timber or frame which has the greatest breadth and capacity in the ship, and which is generally called the midship bend. In those ships where there are several frames or timbers of equal breadth or capacity, that which is in the middle should be always considered as dead-flat.

Deadlight - Fixed ports that do not open which are placed in the deck or cabin to admit light.

Deadrise - The measurement of the angle between the bottom of a boat and its widest beam. A vessel with a 0° deadrise has a flat bottom, high numbers indicate deep V shaped hulls.

Dead Water - The eddy-water which the ship draws after her at her seat, or line of floatation in the water, particularly close aft. To this particular great attention should be paid in the construction of a vessel, especially in those with square tucks, for such being carried too low in the water, will be attended with great eddies or much dead-water. Vessels with a round buttock have but little or no dead-water, because, by the rounding or arching of such vessels abaft, the water more easily recovers its state of rest.

Deals - Fir wood, of similar thickness to plank.

Deadwood - Heavy longitudinal timbers fastened over the keelson. The timbers of the bow and stern are fastened to the deadwood.

Deck - The decks are in a ship what floors are in a house. They are to support the artillery, stores. and, with the beams, to connect the ship together. Their names arise from their situation, as Lower Deck, Middle Deck, Upper Deck, and Quarter

Nautical Terms For The Model Ship Builder

Deck. When a deck stretches fore and aft upon one line, without any falls or intervals, it is called a Flush Deck. The space before the foremast bulkhead, under the quarter-deck, is often called the Half Deck; and, in some north country ships, the steerage is frequently called by this name.

Deck Beam - A beam which supports a deck.

Deck Girders - Continuous longitudinals fastened under the deck.

Deck House - A small house erected upon the deck of a ship for any purpose. A low building or superstructure, such as a cabin, constructed on the top deck of a ship.

Deck Plate - A metal plate fitting on the deck that can be opened to take on fuel or water

Deck Prism - A prism inserted into the deck which provides light down below.

Deck Stepped - A mast that is stepped (placed) on the deck of a boat rather than through the boat and keel stepped. The mast of a deck stepped boat is usually easier to raise and lower and are usually intended for lighter conditions than keel stepped boats.

Deckhead - The underside of the deck, viewed from below the ceiling.

Deep V - Refers to the shape of a boat's (usually power boat) hull. A deep V hull is usually good at cutting through rough waves at high speeds.

Deep Waisted - A term signifying that the height of the topsides is much above the upper deck, as they are in most vessels.

Depth in the Hold - The height between the floor and the lower deck. This is one of the principal dimensions given for the construction of a ship. It varies according to the height at which the guns are required to be carried from the water; or according to the trade for which a vessel is designed.

Derrick - A hoisting apparatus consisting of a block and tackle rigged at the end of a beam.

Design Waterline (DWL) - Also length waterline or load waterline (LWL) - This is the length of the boat where it meets the water when loaded to its designed capacity.

Devil - Caulker's name for the seam in the upper deck planking next to a ship's waterways. There was very little space to get at this seam, making it a difficult and awkward job. This is the origin of the expression "Between the devil and the deep blue sea, since there is only the thickness of the ship's hull planking between this seam and the sea. also known as the garboard seam.

Diagonal - A line cutting the body-plan diagonally from the timbers to the middle line. It is square with, or perpendicular to, the shape of the timbers, or nearly so, till it meets the middle line.

Diagonal Rib Band - A narrow plank, made to a line formed on the half-breadth plan, by taking the intersections of the diagonal line with the timbers in the body-plan to where it cuts the middle line in its direction, and applying it to their respective stations on the half-breadth plan, which forms a curve to which the rib band is made as far as the cant body extends and the square frame adjoining.

Dingbat - Slang term for a small swab made of rope and used for drying decks.

Dinghy - A small open boat often used as tender and lifeboat for a larger craft; a small open boat, usually carried aboard a yacht for going ashore.

Dink - Nickname for a dinghy.

Disposition - A draught or drawing representing the several timbers that compose the frame of the ship, so that they may be properly disposed with respect to the ports.

Ditty Bag - A small bag for carrying or stowing all personal articles. **Ditty Box** - A small wooden box, with lock and key, in which seamen keep sentimental valuables, stationery, and sundry small stores.

Dog - Heavy latch by which doors, hatches, portholes, etc., are secured; verb - to latch.

Doghouse - The short deckhouse or main hatchway which is raised above the level of the cabin top or coachroof.

Donkey Boiler - A steam boiler on a ship deck used to supply steam to deck machinery when the main boilers are shut down.

Donkey Engine - An auxiliary engine used for furnishing power for a variety of small mechanical chores.

Donkey House - The structure on deck where the donkey engine is located.

Door - A passage through a bulkhead or other vertical divider of spaces. Doors can be closed, sometimes with a watertight seal, to prevent progressive flooding.

Dorade - A horn type of vent designed to let air into a cabin and keep water out.

Dory - A hard-chined dinghy with flared sides, considered a useful weight-carrying work boat.

Double Bottom - General term for all watertight spaces contained between the outside bottom plating, the tank top and the margin plate. The double bottoms are sub-divided into a number of separate tanks which may contain boiler feed water, drinking water, fuel oil, ballast, etc.

Double Ender - Any Boat Designed with a pointed bow and stern.

Doubling - Planking of ships' bottoms twice. It is sometimes done to new ships when the original planking is thought to be too thin; and, in repairs, it strengthens the ship, without driving out the former fastenings.

Nautical Terms For The Model Ship Builder

Dove Tail - A score at the end of a piece of wood resembling the end of a dove's tail, and into which a corresponding piece is fitted. It is cut larger within than without for the purpose of holding the two pieces together the more firmly.

DOVE-TAIL PLATES.

Metal plates, formed like dove-tails, and used to confine the heel of the stern-post and keel together.

Dowsing Chocks - Pieces fayed athwart the apron and lapped on the knight-heads or inside stuff above the upper deck.

Draught - The drawing or design of the ship, upon paper, describing the different parts, and from which the ship is to be built. It is mostly drawn by a scale of one quarter of an inch to a foot, so divided or graduated that the dimensions may be taken to one inch.

Draught of Water - The depth of water a ship displaces when she is afloat.

Drift- Pieces - Solid pieces, fitted at the drifts, to form the scroles. They are commonly mitered into the gunwale, but should rather be let in with square butts, as the caulking will stand better.

Drifts - Those parts where the sheer is raised according to the heights of the decks or gangways, and where the rails are cut off and ended by scroles.

Driver - The foremost spur on the bilgeways; the heel of which is fayed to the foreside of the foremost poppet, and cleated on the bilgeways, and the sides of it stand fore and aft. It is now seldom used.

Drop - The fall or declivity of a deck, which is generally of several inches. Drops are also small foliages of carved work in the stern-munions.

Drumhead - The head of a capstan, formed of semi-circular pieces of elm, which, framed together, form the circle into which the capstan bars are fixed.

Druxey - A state of decay in timber with white spongy veins, the most deceptive of any defect.

Dunnage Battens - Pieces of oak or fir, about two inches square, nailed athwart the flat of the orlop, to prevent wet from damaging the cables, and to admit air. Dunnage battens are also used in sail-rooms, and in magazines, so as to form a vacant space beneath the sails and powder barrels. DUNNAGE, in general, signifies light wood, or similar materials, used to elevate the stowage.

E

Earing - A small line used to fasten the upper corners of a square sail to its yard.

Ears of Boats - The knee-pieces at the fore-part on the outside, at the height of the gunwale.

Edge of Planking - Sawing or hewing it narrower.

Nautical Terms For The Model Ship Builder

Eekeing - Making good a deficiency in the length of any piece, by scarping or butting, as at the end of deck-hooks, cheeks, or knees. The ekeing at the lower part of the supporter under the cat-head, is only to continue the shape and fashion of that part, being of no other service. The EKEING is also the piece of carved work under the lower part of the quarter-piece, at the aft part of the quarter gallery.

Elevation - The orthographic draught, or perpendicular plan of a ship, whereon the heights and lengths are expressed. It is called by shipwrights the SHEER DRAUGHT.

Emergency Tiller - A tiller that is designed to be used in the event that wheel steering fails.

Engine Bed - A structure of wooden or metal supports that make up the mounting for a ship's engine.

Engine Order Telegraph - A set of mechanical signaling devices, connected by cables, by which engine commands are passed from the pilot house to the engine room and by which the engine room responds.

Engine Room - Where the engines of a ship are confined.

Ensign - (1) A nautical version of the national flag of the country usually flown at the stern. (2) Adopted by the United States Navy in 1862, the rank of a young officer equivalent to that of midshipman.

Entry - The shape of the fore-body of a ship as it thrusts through the sea. A vessel with a slim bow is said to have a fine entry.

Even Keel - When a boat is floating on its designed waterline, upright without any list to either side, it is said to be floating on an even keel.

Eye - A loop or hole which is spliced or tied on the end of a line.

Eye Splice - A permanent loop spliced in the end of a line, sometimes around a thimble.

Eyebolts - Metal bolts with an eye in the end used for securing various components and equipment.

F

Fair - A term to denote the evenness or regularity of a curve or line.

Fairlead - A fitting used to guide a line in a particular direction without chafing.

Face-piece - A piece of elm, generally tabled on to the fore part of the knee of the head, to assist the conversion of the main piece, and likewise to shorten the upper bolts, and prevent the cables from rubbing against them as the knee gets worn.

Nautical Terms For The Model Ship Builder

Facing - Letting one piece, about an inch in thickness, on to another, in order to strengthen it.

Fake - One circle of a coil or rope. To coil or arrange a rope ornamentally with each fake flat, or almost flat, on the deck, usually in a circle or figure-of-eight pattern. Sometimes called "Cheesing down". **Fall** - The part of the tackle which is hauled upon; a hoisting rope or chain, especially the part of rope or chain to which power is applied.

Fall - The descent of a deck from a fair curve lengthwise, as frequently in the upper deck of yachts, or merchant ships, to give height to the commander's cabin, and sometimes forward at the hawse-holes.

Falling Home - The inclination which the topside has within a perpendicular.

False Keel - An additional keel secured outside the main keel, usually as protection in the event of grounding.

False Post - A piece tabled on to the aft part of the heel of the main part of the stern post. It is to assist the conversion and preserve the main post, should the ship tail aground.

False Rail - A rail fayed down upon the upper side of the main or upper rail of the head. It is to strengthen the head-rail, and forms the seat of ease at the after end next the bow.

Fang - Valve of a pump box; to prime a pump.

Fantail - Overhanging part of a vessel's stern. The area of the upper deck of a ship that is nearest the stern.

Fashion Pieces - The timbers so called from their fashioning the after part of the ship in the plane of projection, by terminating the breadth and forming the shape of the stern. They are united to the ends of the transoms and to the dead-wood.

Fastening - An item such as a nail, screw, rivet or other device used to fasten objects together.

Fay - Two pieces of oak-plank fayed edgeways, perpendicularly, against the topsides abreast the main hatchway, to prevent the sides of the ship from being rubbed by the hoisting of any thing on board. It appears, however from the construction of these fenders, that their only use, in the Royal Navy, can be, when any thing is to be par buckled up the side; and, as this is very unusual, most weights being hoisted on board by the yard-tackles, or a derrick, so that the articles never touch the sides, they are of little use, and had better be dispensed with, as thy are the means of rotting the sides in the parts on which they are affixed.

Fay, to - To join one piece so close to another that there shall be no perceptible space between them.

Fender - A protective cushion of durable material hung from the sides of a boat to protect it from rubbing or chafing against a dock or another boat.

Nautical Terms For The Model Ship Builder

Fid - A pointed tool used to separate strands of rope.

Fiddle - A small rail on tables and counters used to keep objects from sliding off when the vessel rolls and pitches.

Fiddle Block - A double block where the two sheaves lie in a plane one below the other, rather than alongside each other.

Fiddley Deck - A partially raised deck over the engine and boiler rooms, always around the smokestack, to let the hot air and fumes escape.

Fife Rail - A rail around the mast or on the bulwarks with holes for belaying pins to which lines or halyards are attached.

Figure Eight Knot - A stopper knot in the form of a figure eight, placed in the end of a line to prevent the line from passing through a grommet, block, or other fitting.

Figurehead - An ornamental carved and painted figure on the stem of the vessel.

Fillings - Pieces of fir fayed between the cheeks of the head; and the pieces in general, to which no particular denomination is otherwise given, applied or affixed wherever solidity is required; such as those, of oak, between the floors to which the keelson is fayed; and between the timbers, to receive the chain and preventer bolts.

Filling Room - A small place in the magazine, lined with lead, and wherein the powder is started loosely to fill the cartridges.

Filling-timbers - The intermediate timbers between the frames that are gotten up into their places singly after the frames are rib banded and shored.

Fin Keel - A keel that is narrow and deeper than a full keel. It looks like a fish's fin extending below the boat, and the boat usually has a rudder mounted some distance aft, often on an additional keel-like extension called a skeg.

Finishing's - The carved ornaments of the quarter galleries. Those below the lower stool are called the lower finishing; and those above the upper stool, the upper finishing.

Fire hearth - The fire-place and conveniences in the gallery for cooking the provisions for the people. It is composed of a grate, iron-boilers, ovens, a smoke-jack.

Fisherman Anchor - A traditionally shaped anchor having flukes perpendicular to the stock of the anchor and connected by a shank. These are less common than modern anchors such as the plow and lightweight anchors.

Fisherman's Bend - A knot used to fasten a line or cable to the anchor.

Fish-Room - A place parted off in the after-hold, by bulkheads, between the spirit-room, bread-room, and powder-room. It was formerly used for stowing the salt-fish to be consumed on board; a practice long since discontinued. It is now used for the stowage of coals, and sometimes for spirits, which the ship is destined for a long voyage.

Fixed Blocks - Those blocks that come through the sides and are bolted, as the sheet, tack, and brace blocks.

Flag of Convenience - Registry of the vessel is foreign to that of the country in which the company that owns the ship is located.

Flake - (1) To lay a line out in coils so that it can run without fouling. (2) Folding a sail in layers on the boom.

Flaring - The reverse of falling or tumbling-home. As this can be only in the fore-part of the ship, it is said that a ship has a flaring-bow, when the topside falls outward from a perpendicular. Its uses are, to shorten the cathead, and yet keep the anchor clear of the bow. It also prevents the sea from breaking in upon the fore-castle.

Flats - A name given to the timbers a-midships that have no beveling, and are similar to dead-flat.

Flemish Horse - The short foot rope at the end of a yard at the outer corner of a square sail used when reefing or furling.

Flexure - The binding or curving of a line or figure.

Flight - A sudden rising, or a greater curve than sheer, at the cheeks, catheads.

Flight of the Transoms - As the ends or arms of the transoms, being gradually closed in proportion to their distance from the wing transoms downwards, become more narrow as they approach the keel, the general figure or curve which they thus describe, similar to the rising of the floors, is called the flight of the transoms.

Floor - Lower part of a transverse frame running each side of the keelson to the bilges; a virtually horizontal platform extending to the ship's sides.

Floorboards - The surface of the cockpit on which the crew stand.

Floor-Hollow - The inflected curve that terminates the floor next the keel, and to which the floor hollow mould is made.

Floor-Rib Band - The rib band next below the floor-heads which supports the floors. This rib band should be well shored, and great pains should be taken to keep it fair and level, as the whole fabric depends very much thereon.

Floor Sweeps - The radii that sweep the heads of the floors.

Fluke - (1) The portion of an anchor that digs securely into the bottom, holding the boat in place. (2) The two triangular parts which make up a whale's tail.

Flush Deck - A deck whose top side is flush.

Fly-up - Is a term similar to the article FLIGHT, signifying a sudden deviation upwards from a sheer line, as the clamps of the lower deck fly-up abaft to prevent their great shy.

Flying Bridge - The highest navigation bridge. It usually includes an added set of controls above the level of the normal control station for better visibility.

Footropes - On a square-rigged ship, the ropes which hang below a yard upon which the top-men stand while aloft furling or reefing a sail. They were supported by ropes from the yard known as "stirrups".

Foot-Space Rail - The rail that terminates the foot of the balcony, and in which the balusters step, if there be no pedestal rail. It rabbets over the ends of the deals of the deck.

Foot-Wailing, or Futtling - The inside plank of the ship's bottom.

Fore - Towards, near, or at the bow; Prefix denoting at, near, or toward the bow.

Fore and Aft - In a line parallel to the ship's keel.

Fore and Aft Rigged - Sails that lie in the direction of the ship's length and whose luffs abut the masts or are attached to stays.

Fore Body - That part of the ship's body, afore the midships or dead-flat. This term is more particularly used in expressing the figure or shape of that part of the ship.

Fore Foot - The foremost piece of the keel.

Fore Lock - A thin circular wedge of iron, used to retain a bolt in its place, by being thrust through a mortise hole at the point of the bolt. It is sometimes turned or twisted round the bolt to prevent its drawing.

Fore Most - Nearest to the head of the ship.

Fore Peak - The compartment at the bow of the vessel.

Fore Rake - The forward part of the bow which overhangs the keel.

Forecabin - The cabin towards the front of the vessel.

Forecastle - Also fo'c'sle or fo'csle. Pronounced "foke-sul". The most forward below decks area of a vessel; The crew quarters on a traditional sailing ship forward of the main mast.

Foredeck - The forward part of a boat's main deck.

Forefoot - The point where the stem joins the forward end of the keel.

Foreguy - A line leading forward from the end of a mainsail boom to prevent the boom from swinging inboard while broad reaching or running. also Preventer.

Foremast - The forward mast of a boat with more than one mast.

Forepeak - A space or compartment in the bow of a vessel - The compartment farthest forward in the bow of the boat. Often used for anchor or sail stowage.

Foresail - A sail placed forward of the mast, such as a jib; the sail set from the foremast on a schooner; the lowest square sail on the foremast of Square Riggers.

Forestay - A support wire running from the upper part of the mast to the bow of the boat designed to pull the mast forward. A forestay that attaches slightly below the top of the mast can be used to help control the bend of the mast. The most forward stay on the boat is also called the headstay.

Forestaysail - A sail attached to the forestay as opposed to a jib which is attached to the headstay.

Foretriangle - The triangle formed by the masthead, the base of the mast at deck level, and the lower end of the headstay.

Forward - At or toward the bow. Also the fore part of the ship.

Forward-leading - Said of a line that leads from its point of attachment towards the bow of the ship.

Foremast - The mast in the forepart of a vessel, nearest the bow.

Foxy - A defect in timber, of a reddish cast or hue, proceeding from over-age.

Fractional Rig - A design in which the forestay does not go to the very top of the mast, but instead to a point 3/4-7/8 of the way up the mast.

Frame - A timber or rib of a ship running from the keel to the side rail; the transverse strengthening members in a ship's hull that extend from the keel to the deck or gunwale. The frames form the shape of the hull and act as a skeleton on which the hull planking is secured.

Freeboard - The distance from the gunwale to the water. Most often this will vary along the length of the boat.

Freeboard Deck - The uppermost complete deck of a ship having a secure means of closing all openings to be fully watertight.

Freeing Port - An opening in the bulwark or rail for discharging large quantities of water, when thrown by the sea upon the ship's deck. Some ships have "swing gates" which allow water to drain off but which automatically close from the pressure of sea water.

Friezing - The ornamental carving or painting above the drift-rails, and likewise round the stern or bow. It is generally a representation of foliage or emblematic trophies of war.

Fulcrum - The prop of support of a lever in lifting or removing a heavy body.

Full Keel - A keel that runs the length of the boat.

Fully Battened - A sail having battens that run the full horizontal length of the sail.

Fully Stayed - A mast supported by the use of lines or wire known as stays and shrouds.

Furl - To fold or roll a sail and secure it to its main support.

Furniture - The essential fittings and equipment of a ship, such as anchors, rigging, masts, davits, derricks, winches, etc., excluding her consumable stores such as water, fuel and victuals.

Furrans - Pieces to supply the deficiency of timber the molding way.

Futtock - A curved or vertical timber that when paired with a floor or additional futtocks makes the frame of a wooden ship.

Futtock Shrouds - Short shrouds which give support to the top of a lower mast.

G

Gaff - (1) A spar that holds the upper side of a four sided gaff sail. (2) A pole with a sharp hook at the end used to get a fish on board.

Gaff Rig - Any sailboat with a four-sided mainsail, defined by two booms, one located on the bottom, perpendicular to the mast, and another, located on top, at an angle from the mast. **Gaff Sail** - A four sided sail used instead of a triangular main sail. Used on gaff rigged boats.

Gaff Topsail - A light triangular or quadrilateral sail set over a gaff.

Galleon - A development of the carrack, with the high forecastle eliminated.

Gallery - In larger sailing warships, the walk built out from the admiral's or captain's cabin and extending beyond the stern. Often decorated with carved and gilded work, they were also covered and enclosed with elaborate glass windows.

Galley - (1) The kitchen area of a boat. (2) Very old fighting ship propelled by oars.

Gallows Frame - A frame used to support the boom when the sail is down.

Gammoning-Hole - A mortise hole cut through the knee of the head, between the cheeks, through which the rope passes that gammons the bowsprit.

Gammon Iron - Circular iron band used to hold a bowsprit on the stem of a sailing vessel.

Gang-Boards - The narrow platforms within the sides, next the gunwales, which connect the quarter-deck to the forecastle. Each is composed of three or four Prussia deals fayed and bolted together edgewise.

Gangplank - A board with cleats, forming a bridge reaching from a gangway of a vessel to the wharf.

Nautical Terms For The Model Ship Builder

Gangway - A narrow portable platform used as a passage, by persons entering or leaving a vessel moored alongside a pier.

Garboard Strake - The first plank on the outer hull of a wooden vessel next to the keel. In steel ships, the plating next to the keel, or what is known as strake A.

Garnet - On a square-rigged ship, a tackle used for hoisting casks and provisions.

Gasket - Ties used to tie up the sails when they are furled to the boom or yards.

Gate Valve - A valve with a faucet type handle used to restrict the flow of water in a line.

Gennaker - A large sail that is a cross between a spinnaker and a genoa. Hoisted without a pole, the tack is attached at the bottom of the headstay.

Genoa - A large foresail or jib that overlaps the mainsail. Also known as a genny. Can be expressed in percentages of overlap, e.g. 150 Genoa is 50% overlap of the mainsail.

Gimbals - A system by which an object such as a compass is suspended so that it remains horizontal as the boat heels.

Gingerbread - Gilded carving and scroll work decorating the hulls of ships.

Girdle - Additional thickness of planking on a wooden ship about her waterline to give the vessel more stability.

Girth - The measurement around the body of a ship. The half girth is taken from the center line of the keel to the upper deck beam end.

Gob Line - A length of rope used in a tug to bowse in the towrope. Gog rope.

Gondola - A small boat, highly ornamented, with a high rising stem and sternpost. Used on the canals of Venice, it is propelled by a man standing near the stern using a single oar.

Gooseneck - The fitting which connects the boom to the mast.

Grabrail - A pillar or handhold on a boat - Hand-hold fittings mounted on cabin tops and sides for personal safety when moving around the boat.

Grain-Cut - Cut athwart the grain; as when the grain of the wood does not partake of the shape required; for instance, if a knee be cut out of a broad straight-grained plank, it is evident that the grain, being cut across, would be very short in one or both arms.

Gratings - The lattice coverings of the hatchways, which are made with openings to admit air, or light, by cross battens and ledges. The openings should never be so large as to admit the heel of a man's shoe, as they may otherwise endanger those that pass over them.

Nautical Terms For The Model Ship Builder

Grapnel, Grapple - A small multi-pronged anchor used on dinghies and small boats. Also used to drag along the bottom to recover something that has sunk.

Gripes - Small lines or bands used to hold down and secure boats on deck while at sea.

Grommet - A ring or eyelet normally used to attach a line, such as on a sail.

Ground Tackle - A collective term for the anchor, anchor rode (line or chain), and all the shackles and other gear used for attachment.

Ground Ways - Large pieces of timber, generally defective, which are laid upon piles driven in the ground, across the dock or slip, in order to make a good foundation to lay the blocks on, upon which the ship is to rest.

Guard-Irons - Curved or arched bars of iron fixed over the carved work of yachts, particularly over the head and quarter pieces, to prevent their being damaged.

Guardrail - The upper deck rail along both sides of a vessel to prevent anyone on board from falling overboard.

Gudgeon - A ring-shaped fitting into which the rudder pintle is inserted which allows the rudder to pivot.

Gunnels - See Gunwhale.

Gun Room - The after-part of the lower deck, parted off for the accommodation of the subaltern officers.

Gunter Rig - Development of the lugsail rig where the sail is cut with a very short luff and lon leech.

Gunwale - The upper edge of a boat's side; the part of a vessel where hull and deck meet.

Gusset - A brace, usually triangular, for reinforcing a corner or angle in the framework of a structure.

Guy - A supporting or steadying line or wire; a line used to control the end of a spar. A spinnaker pole, for example, has one end attached to the mast, while the free end is moved back and forth with a guy.

Gybe - (Jibe) Turning the boat so that the stern crosses the wind, changing direction. To change direction before the wind onto another tack with the boom coming over by the force of the wind. Caution is needed in this maneuver, especially in heavy wind.

Gypsy - A windlass or capstan drum.

H

H-Beams - Steel beams with cross section like the letter "H."

Hair Bracket - The molding which terminates the fore ends of the head rails, comes at the back of the figure, and breaks in fair with the upper cheek.

Half-Breadth of the Rising - A curve in the floor plan, which limits the distances of the centers of the floor-sweeps from the middle line of the body-plan.

Half Hitch - A single turn of line around an object with the end being led back through the bight. It's the basis upon which many nautical knots are constructed.

Half-Ports - A sort of shutters made of deal, and fitted to the slope of those ports which have no hanging lids. They have a hole cut in them for the gun to go through.

Half-Timbers - The short timbers in the cant-bodies, which are answerable to the lower futtocks in the square body.

Halyard - A line used to hoist or lower a sail, flag or spar. The tightness of the halyard can affect sail shape.

Hammers - The tools used by shipwrights for driving nails and clenching bolts. Claw-hammers are the most convenient for the former purpose, having a claw at one end to draw the nail out if it splits or rocks in driving. Clench-hammers should be made of hard steel, with one end flat for clenching, and a face for smoothing the clench.

Hammock-Racks - The battens nailed to the sides of the beams, and to which the sailors hang their hammocks and bedding.

Hance or **Hanch** - A sudden fall or break, as from the drifts forward and aft to the waist. Also those breaks in the rudder. at those parts where it suddenly becomes narrower.

Hand Lead - A weight attached to a line used to determine depth by lowering it into the water.

Hand Rail - A hand hold. Usually along the cabin top or ladder.

Handy-billy - A movable block and tackle used on board for a variety of purposes, including the handling of cargo in holds.

Handspec - A wooden bar, made of tough ash, and used as a lever to prize or remove great weights.

Hanging - Declining in the middle part from a horizontal right line, as the hanging of the decks, hanging of the sheer.

Hanging Clamp - A semi-circular iron, with a foot at each end, to receive nails, by which it is fixed to any part of a ship, to hang stages to.

Nautical Terms For The Model Ship Builder

Hanging Knee - Those knees against the sides whose arms hang vertically or perpendicularly.

Hanks - Rings or piston hooks by which sails are attach to stays, usually spring-loaded; metal hooks used to secure a sail to a stay; to hank on a sail is to hook it on a stay using the hanks.

Hard Chine - An abrupt intersection between the hull side and the hull bottom of a boat.

Harpins - Pieces of oak similar to rib bands, but trimmed and beveled to the shape of the body of the ship, and holding the fore and after cant bodies together until the ship is planked. But this term is mostly applicable to those at the bow; hence arises the phrase "clean and full harpins," as the ship at this part is more or less acute.

Harris-Cut - This term is applied when the edges of planks are cut to an under beveling, to fay one upon another, as the birthing or sides of the well, so that no ballast may get in at the joints.

Hatch - A sliding or hinged opening in the deck, providing people with access to the cabin or space below; an opening in a boat's deck fitted with a watertight cover.

Hatch Covers - Covers for closing up hatchways.

Hatchway - One of the large square openings in the deck of a ship through which freight is hoisted in or out, and access is had to the hold.

Hawse - That part of a ship's bow where the hawse holes and hawse pipes are situated.

Hawse Hole - A hole in the hull for mooring lines, cable, or chain to run through.

Hawse Hook - The breast hook over the hawse-holes.

Hawse Pipe - Pipes made of heavy cast iron or steel through which the anchor chain runs; placed in the ship's bow on each side of the stem, or in some cases also at the stern when a stern anchor is used.

Hawse Plug or Block - A stopper used to prevent water from entering the hawse hole in heavy weather.

Hawser - A heavy line or cable used for towing, mooring or anchoring a large vessel.

Head - (1) A marine toilet or the compartment containing a toilet. (2) Generally, the top or forward part. (3) The upper corner of a triangular sail. (4) The top portion of a mast.

Headboard - A small wooden, metal or plastic insertion at the head of a mainsail.

Headfoil - A grooved metal extrusion fitted on a forestay and used to secure the luff of a sail by holding its bolt rope in place.

Nautical Terms For The Model Ship Builder

Head-Ledges - The thwartships pieces which frame the hatchways and ladder ways.

Head-Rails - Those rails in the head which extend from the back of the figure to the cat-head and bows, which are not only ornamental to the frame but useful to that part of the ship.

Headsail - A sail set forward of the foremast on the headstay; a foresail.

Head-Timbers - The pieces that cross the rails of the head vertically. They are bolted through their heels to the cutting down of the knee, and unite the whole together.

Headstay - The stay leading from the mast to the bow.

Headway - The forward motion of a boat through the water. Opposite of sternway.

Heaving Line - A light line with a weight on the end used for heaving from ship to shore (or ship to ship) when coming alongside. A heavier cable or hawser is attached which can then be hauled over using the heaving line.

Heel - The lower end of a timber. A ship is also said to heel when she is not upright.

Helm - The apparatus by which a vessel is steered, including the rudder, steering wheel and tiller.

Helm-Port Transoms - The piece of timber placed athwart the inside of the counter timbers at the height of the helm-port. It is bolted through every stern timber, and kneed at each end for the security of that part of the ship.

Help-Port - That hole through the counter, through which the head of the rudder passes.

Helve - The handle of axes, adzes, mauls.

Highliner - The best of its type of fishing boat. Word originates from a time when the crew used to fish from the deck of a vessel. The best fisherman got the highest place on deck, up in the bow, so his line was the highest above the sea.

Hiking Stick - An extension to the tiller allowing the helmsman to steer while hiking. This may be desired for improved visibility or stability.

Hitch - (1) A knot used to secure a line to another object such as a ring or cylindrical object or to another line; (2) Common term for an enlistment.

Hogging - A ship is said to hog when the middle part of her keel and bottom are so strained as to curve or arch upwards.

Hold - A general name for the spaces below the main deck designated for stowage of general cargo.

Holding Tank - A storage tank where sewage is stored until it can be removed to a treatment facility.

Hood - The name given to all the foremost and aftermost planks of the bottom, both within side and without. Also a covering to shelter the mortar in bomb-vessels. In merchant ships it is the birthing round the ladder-way.

Hooding Ends or **Hood Ends**- These ends of the planks which bury in the rabbets of the stem and stern post.

Hook - Slang for anchor.

Hooking - The act of working the edge of one plank. into that of another, in such a manner that they cannot be drawn asunder endways.

Hoop - On gaff-rigged sailing vessels the luff of the mainsail is secured to the mast by wooden hoops, which slide up or down the mast as the sail is raised or lowered.

Horizontal Rib Bands - Those ideal rib bands, used in laying off, which are taken off level or square with the middle line of the ship's body.

Horn or **Horning** - Placing or proving any thing to stand square from the middle line of the ship, by setting an equal distance thereon from each side of the middle line; then bringing the same distance equally from some fixed spot in the middle line by a batten or staff of some length.

Horn Timber - A heavy longitudinal timber that angles upward from the stern to support the underside of the fantail.

Horns - (1) The points of the jaws of a boom or gaff where they embrace the mast. (2) The outer ends of the crosstrees. Horse Latitudes - Areas of the ocean lying between the mostly westerly winds of the higher latitudes, and the trade winds. These areas usually have prolonged calms, and in the older days of sail it could take quite a while to clear out of this area, by which time the seamen had worked off their "dead horses".

Horse - The round bar of iron which is fixed to the main rail and back of the figure in the head, with stanchions, and to which is attached a netting for the safety of the men who have occasion to be in the head. Also the cross-pieces of timber tendoned on to the heads of the bitts for the booms to rest upon.

Horse Iron - An iron fixed in a handle, and used with a beetle by caulkers, to horse-up or harden in the oak hams .

Horse Shoes - Large straps of iron or copper shaped like a horse-shoe and let into the stem, which gripe on opposite sides, through which they are bolted together to secure the gripe to the stem.

Hounds - Wooden shoulders attached below the masthead to either side of a wooden mast which originally supported the trestle trees.

Hovercraft - A vessel used for the transportation of passengers and cargo riding on a cushion of air formed under it. It is very maneuverable and is also amphibious.

Hull - The main structural body or shell of the boat, not including the deck, keel, mast, or cabin.

Hydrofoil - A craft more or less similar to the Hovercraft insofar as it flies over water and thus eliminates friction between the water and the hull. Under acceleration it rises above water but remains in contact with the surface through supporting legs or foils.

Hydrowire - Steel wire, used to support over-the-side sampling apparatus.

I

I-Beams - Steel beams with cross section like the letter "I."

IN AND OUT.

A term sometimes used for the scantling of the timbers the molding way, but more particularly applied to those bolts in the knees, riders, which are driven through the ship's sides, or athwartships, and therefore called "In and out Bolts."

Inboard - (1) Toward the center of the boat. (2) An engine that is mounted inside the boat.

Indiaman - Any of the large sailing ships engaged in the British trade with India from roughly 1600 to 1880.

Inflatable - A dinghy or raft that can be inflated for use or deflated for easy stowage.

INNER POST.

A piece of oak timber, brought on and fayed to the foreside of the main stern-post, for the purpose of seating the transoms upon it. It is a great security to the ends of the planks, as the main post is seldom sufficiently afore the rabbet for that purpose, and is also a great strengthener to that part of the ship.

Inverter - Electrical power converter; converts square-wave DC current to sine-wave AC current

Irish Pennants - Loose ends of line left hanging over a ship's side.

Iron Genny - Auxiliary engine

IRONS.

The tools used by the caulkers for driving the oakum.

Isinglass - The clear, soft plastic material used for dodger window panels

J

Nautical Terms For The Model Ship Builder

Jack - The national flag flown on a jackstaff on the bow of naval ships while anchored.

Jack Lines - Safety lines, usually of flat webbing, that run along the deck between bow and stern used to attach a tether from a safety harness.

Jackass Barque - Four-masted sailing ship square-rigged on the two foremost masts and fore-and-aft rigged on the two after masts.

Jackstaff - A short vertically erected pole at the bow on which the national flag is hoisted on naval ships while at anchor.

Jackstay - A line or cable secured between two points and used as a support for various purposes.

Jackyard - A yard or pole extending the head or foot of the topsail beyond the topmast or gaff of a gaff-rigged boat.

Jacobs Ladder - A rope ladder with wooden steps. A rope ladder, lowered from the deck, as when pilots or passengers come aboard.

Jam Cleat - A cleat designed to hold a line in place without slipping. It consists of two narrowing jaws with teeth in which the line is placed.

Jaw - The distance between a rope's adjacent strands, giving a measure of the tightness of the lay. The shorter the distance, the harder the lay. When a line has been overused and the lay has become slack, it is said to be slack-jawed.

Jaws - A fitting holding a boom or gaff to the mast.

Jenny - A genoa jib. A large jib that overlaps the mast.

Jewel Blocks - On square-rigged ships, the blocks attached to those yards on which studdingsails were set.

Jib - The foremost sail; a triangular shaped foresail forward of the foremast.

Jib Netting - A rope net to catch the jib when it is lowered.

Jib Sheet - The lines that lead from the clew of the jib to the cockpit and are used to control the jib.

Jib Stay - The stay that the jib is hoisted on. Usually the headstay.

Jib Topsail - A small jib set high on the headstay of a double headsail rig.

Jib-boom - Spar forward of bowsprit to extend the foot of the outer jib.

Jib-Headed Topsail - A triangular topsail set above the mainsail in a gaff-rigged vessel.

Jibstay - The headstay on which jibs are hoisted.

Jigger - (1) A light tackle consisting of a double and single block used for many small purposes onboard. (2) Aft sail on the mizzen mast of a yawl or a ketch, or on the jigger-mast of a schooner.

Jigger-Mast - After mast on a schooner or sailing ship carrying a spanker; usually the fourth mast of a five or six masted schooner.

Jockey Pole - A spar used to prevent the spinnaker guy from fouling on the stanchions.

JOINT.

The place where any two pieces are united. This term is, however, more particularly used to express the lines which are laid down in the mould-loft for the purpose of making the moulds for the timbers, as those lines exhibit the shape of the body between every two timbers, which is hence called the joints.

Jolly Roger - In lore, the flag flown by a pirate ship - a white skull on a black background with crossed bones below the skull - although there is no evidence that such a flag was ever flown.

Jumbo - The largest of the headsails; corresponds to the genoa.

Jumper Strut - A short strut on a mast angled forward at about 45° which spreads the effective angle of a short jumper stay. This adds stiffness and support to the mast.

Junk - (1) A sailing vessel common in the Far East. It's flat-bottomed, high sterned, has square bows, and has two or three masts carrying lugsails. (2) Old and condemned rope.

K

Kayak - Eskimo word for a light, covered-in canoe type boat.

Keckling - Winding small rope around a cable or hawser to prevent damage by chafing. The rope with which a cable is keckled.

Kedge - (1) A small auxiliary anchor. (2) To kedge is to move a vessel (e.g., a grounded boat) by setting out an anchor and pulling the boat toward it by taking up on the anchor rode.

Keel - (1) The backbone of a vessel, running fore and aft along the center line of the bottom of the hull; the timber at the very bottom of the hull to which frames are attached. (2) A flat surface built into the bottom of the boat to prevent or reduce the leeway caused by the wind pushing against the side of the boat. A keel also usually has some ballast to help keep the boat upright and prevent it from heeling too much. There are several types of keels, such as fin keels and full keels.

Keel Blocks - Blocks on which the keel of a vessel rests when being built, or when she is in dry dock.

Keel Stepped - A mast that is stepped (placed) on the keel at the bottom of the boat rather than on the deck. Keel stepped masts are considered sturdier than deck stepped masts.

Keelson - A beam attached to the top of the floors to add strength to the keel on a wooden boat.

Kentledge - Permanent pip iron ballast specially shaped and placed along each side of keelson. Name is sometimes given to any iron ballast.

Ketch - A sailboat with two masts. Generally, the shorter mizzen mast is aft of the main mast, but forward of the rudder post, while a similar vessel, the yawl, has the mizzen mast aft of the rudder post. The mizzen mast of a ketch is larger than that of a yawl.

Kevel, or Cavel Head Blocks - A type of block, having a sheave hole or two cut through fore and aft, and which are bolted to the ship's sides, nearly opposite the masts, to reeve the lifts.

Kevels - Pieces of oak plank, shaped like timber heads, and fixed into mortises cut through other pieces that are fastened to the insides of the ship. They answer the purpose of timber heads to belay the ropes to.

Key - A dry piece of oak, cut tapering, to drive into scarps that have hook-butts.

Killick - Nautical name for an anchor. Originally, was a stone used as an anchor.

Kiln - A convenience for heating planks to make them pliable. A steam-kiln [steam box] is a trunk composed of deals, grooved neatly into each other, which is generally from three to four feet square, and from forty to sixty feet in length, having a door at each end. It is confined together by bolts driven through it at certain distances, which answer for bearers to rest the plank upon, and it is supported upon brick work. Beneath it, in the middle, is a large iron or copper boiler, or sometimes two boilers, which are then fixed near each end, the steam from which, issuing into the trunk, enters the pores of the plank and makes it pliable.

King Plank - The center plank on a wooden deck.

King Post - A vertical post usually employed as a support - Also called a Sampson post.

King Spoke - The top spoke (usually marked) on the steering wheel when the rudder is centered.

Kite - A light sail, such as a spinnaker, used to make the most of light following winds.

Knee - An angle or channel from deck beam to shell frame taking the place of a bracket.

Knees - Supporting braces made into a right angle, used for strength when two parts are joined.

Knee of the Head - The large flat timber fayed edgeways upon the fore-part of the stem. It is formed by an assemblage of pieces of oak coked or tabled together edgewise, by reason of its breadth, and it projects the length of the head. Its fore-part should form a handsome serpentine line, or inflected curve. The principal pieces are named the main-piece and lacing.

Knee Timber - That sort of crooked timber which forms, at its back or elbow, an angle of from forty-five to twenty-four degrees. The more acute this angle is, the more valuable is the timber on that account. But if their angle be more obtuse, they are said to be raking, and are proportionally less valuable, being of the less utility for the formation of knees.

Knight-Heads, or Bollard-Timbers - Large oak timbers fayed and bolted to each side of the stem, the heads of which run up sufficiently above the head of the stem to support the bowsprit, care being taken to cast them sufficiently open above the stem to the diameter of the bowsprit.

Knockabout - A type of schooner without a bowsprit.

Knot - (1) A speed of one nautical mile (6,076 feet or or 1,852 meters) per hour. It is incorrect to say knots per hour. (2) A method of attaching a rope or line to itself, another line or a fitting.

Knuckle - A sudden angle made on some timbers by a quick reverse of shape, such as the knuckles of the counter timbers.

Knuckle-Timbers - Those top-timbers in the fore-body whose heads stand perpendicular, and form an angle with the flair or hollow of the topside. This work is the best when the touch or knuckle is at the plank sheer.

L

Lacing - A length of line or thin rope; A line used to attach a sail to a spar.

Ladder - Stairway of inclined or vertical steps on board ship.

Ladder-Ways - The openings in the decks wherein the ladders are placed.

Lanyard - A Short line used to attach one thing to another - a short rope or cord that secures or attaches an item onboard a boat, usually for keeping it attached to the boat.

Lapper - A large foresail which extends aft behind the mast.

Laps - The remaining part of the ends of carlings. which are to bear a great weight or pressure, such as the capstan-step.

Lap-Sided - A term expressive of the condition of a vessel when she will not swim upright, owing to her sides being unequal.

Nautical Terms For The Model Ship Builder

Lapstrake - The overlapping of wooden planks, used to form the outer surface of a boat's hull.

Larboard - The original name for the left side of the vessel when facing forward. The name was changed to Port to avoid any confusion with starboard, the right side of the vessel when facing forward.

Lash - To tie something with a line; to secure.

Lashing - A rope used for securing any movable object in place.

Lateen - Narrow triangular sail set on a long yard or spar, the forward end of which is hauled down so that it sets obliquely on the mast with a high peak.

Launch - (1) The slip or descent whereon the ship is built, including the whole of the machinery used in launching. (2) A large boat now mostly used instead of the LONG BOAT.

Launching-Planks - A set of planks mostly used to form the platform on each side of the ship, whereon the bilgeways slide for the purpose of launching.

Lazarette - Compartment in the stern of a vessel used for storage; a storage space below the deck in the cockpit.

Lazy Guy - A line attached to the boom to prevent it from accidentally gybing.

Lazyjacks - Light lines from the topping lift to the boom, forming a cradle into which the mainsail may be lowered.

Lead - Refers to the direction in which a line goes.

Lead Line - A line with a weight on the end used to measure depth. The lead is dropped into the water and marks on the line are read to determine the current water depth. The lead usually has a cavity to return a sample of the bottom type mud, sand, etc.

Ledges - Oak or fir scantling used in framing the decks, which are let into the carlings athwartships. The ledges for gratings are similar, but arch or round up agreeable to the head-ledges.

Leeboards - Boards fixed vertically to a boat to prevent leeway.

Leech - After or trailing edge of a sail; the after edge of a fore-and-aft sail and the outer edges of a square sail.

Leech Line - A line used to tighten the leech of a sail, helping to create proper sail shape.

Lee cloths - Cloths hung on the lee side of a berth to keep one from rolling out of their bunk.

Length Over All (L.O.A.) - Measured from the most forward part of the fore end to the most after part of the after end of the hull.

Let-In, To - To fix or fit one timber or plank into another, as the ends of carlings into the beams, and the beams into the clamps, scores being made in each to receive the other.

Level Lines - Lines determining the shape of a ship's body horizontally, or square from the middle line of the ship.

Leveled-Out - A line continued out, in a horizontal direction, from the intersection of an angle; or, where the cant-timbers may intersect the diagonal or rib band lines.

Life Jacket - A device used to keep a person afloat. Also called a life preserver, life vest, PFD or personal floatation device.

Life Raft - A raft used in case of emergencies, such as sinking or fire.

Life Vest - A wearable device used to keep a person afloat. Also called a life jacket, life preserver, PFD or personal floatation device.

Lifeboat - Small boat carried on the vessel and used in case of emergency.

Lifebuoy, Life Ring - a circular donut-shaped buoy designed to support a person in the water. It is attached to the vessel with a (floating) line so that the person can be hauled back to the boat.

Lifeline - Stout line or cable fore and aft around the deck of the boat to keep crew from falling overboard.

Lifts - On square-rigged ships, the lines which are lead from the masthead to the ends of the yards to support them.

Light Load Line - The water line when the ship rides empty.

Light Port - An opening in a ship's side, provided with a glazed lid or cover for the admission of light.

Light-Room - A small place parted off from the magazine, and in which the lights for lighting the magazine are contained.

Light Sails - Sails, such as the spinnaker, reacher and reaching staysail used when running or reaching.

Lighter - General name for a broad, flat-bottomed boat used in transporting cargo between a vessel and the shore. The distinction between a lighter and a barge is more in the manner of use than in equipment. The term "lighter" refers to a short haul, generally in connection with loading and unloading operations of vessels in harbor while the term "barge" is more often used when the cargo is being carried to its destination over a long distance.

Lignum Vitae - A smooth hard wood grown in the West Indies which had many maritime uses, such as deadeyes and the sheaves of blocks. Its hardness stood up well to wear, and its smoothness allowed lines to render through easily.

Limber Holes - are square grooves cut through the underside of the floor-timber, about nine inches from the side of the keel on each side, through which water may run toward the pumps, in the whole length of the floors. This precaution is requisite in merchant ships only, where small quantities of water, by the heeling of the ship, may come through the ceiling and damage the cargo. It is for this reason that the lower futtocks of merchant ships are cut off short of the keel.

Limber Passage - A passage or channel formed throughout the whole length of the floor, on each side of the keelson, for giving water a free communication to the pumps. It is formed by the LIMBER-STRAKE on each side, a thick strake wrought next the keelson, from the upper-side of which the depth in the hold is always taken. This strake is kept about eleven inches from the keelson, and forms the passage fore and aft, which admits the water with a fair run to the pump-well. The upper part of the limber passage is formed by the LIMBER BOARDS, which are made to keep out all dirt and other obstructions. These boards are composed of short pieces of oak plank, one edge of which is fitted into a rabbet into the limber-strake, and the other edge beveled with a descent against the keelson. They are fitted in short pieces for the convenience of taking up one or more, readily, in order to clear away any obstruction in the passage. When the limber boards are fitted, care should be taken to have the butts in those places where the bulkheads come, as there will be then no difficulty in taking those up which come near the bulkheads. A hole is bored in the middle of each butt to admit the end of a crow for prizing it up when required. To prevent the boards from being displaced, each should be marked with a figure corresponding with one on the limber-strake.

Line - Rope and cordage used aboard a vessel. A particular line generally derives its name from the object it affects.

Line, To - To cover one piece with another. Also to mark out the work, or make lines upon the floor with a chalked line.

Line Gun - A gun used to shoot a messenger line from one ship to another, or to persons stranded.

Liner - A passenger or cargo-carrying ship which is operated between scheduled, advertised ports of loading and discharge on a regular basis.

Lines - The naval architect's drawings of a ship showing the various sections.

Linestoppers - A device used to keep a line from slipping, such as a jamcleat.

Load Water Line (LWL) - A line painted on the side of the vessel to which the vessel sinks when carrying its full load. The water line when a vessel is carrying its full load.

Lobby - A name sometimes given to an apartment close before the great cabin bulkhead.

Locker - A closet or chest-like storage space.

Log Room - Where a vessel's records, especially engineering records, are kept.

Loggerhead - The wooden bit in the stem of a whaling boat around which the harpoon line was controlled.

Long Boat - The largest and stoutest belonging to a ship.

Longitudinal - A bulkhead, frame, or longitudinal stiffener, running fore and aft.

Long Splice - Joining the ends of two lines without increasing the thickness over the length of the splice, so that the splice will pass freely through a block.

Long Ton - 2,240 pounds (1016.05 kilograms).

Long Timbers - Those timbers afore and abaft the floors, which form the floor and second futtock in one.

Loop Holes - Small apertures through the bulk-heads, coamings, head-ledges, and other parts of merchant ships, through which the small arms are fired on an enemy who boards at close quarters.

Loose-footed - A sail attached to the boom at the tack and clew, but not along the foot, or a fore-and-aft sail which is set without a boom.

Louvered Battens - The battens that enclose the upper part of the well, which are fixed at such an angle as to admit air, and yet prevent any dirt from being thrown into the well.

Lover-Wise or **Lover-Ways** - To place battens or boards at a certain angle, so as to admit air but not wet. The louvered or battened parts of ships'-wells are fixed in this manner to admit air and prevent persons from throwing filth of any kind into the well.

Low and Aloft - An expression describing a sailing ship set with every sail she can carry.

Lubber's Hole - An opening in the floor of the tops of a square-rigged vessel's masts, giving access from below. Timid crew climbing the rigging preferred to go through this hole to reach the top rather than over the futtock shrouds, the path taken by more experienced sailors.

Luff - The forward edge of a fore-and-aft sail.

Luffer Loof - The fullest or roundest part of the bow.

Lug or Lugsail - A four sided sail bent onto a yard. Similar to a gaff sail, but with a wider throat.

Lugger - A sailing vessel rigged with lugsails.

Lugs - Metal or plastic pieces attached to a sail's luff that slide in a mast track to allow easy hoisting of the sail.

M

Magazine - The apartment used to lodge the powder in; which, in large ships, is situated forward, and in small ships abaft. It should always be situated as low down as possible.

Main - Chief or principal, as opposed to any thing secondary or inferior. Thus the main-mast is used in contradistinction to the fore or mizzen-mast; the main-keel, main-wales, main-hatchway. are in like manner distinguished from the false-keel, channel-wales, and the fore and after hatchways.

Main Beam - Transverse structural member supporting the deck and, in most modern sailboats, the deck-stepped mast; also the designated location of the ship's Official Number and (in some instances) Tonnage (affixed to or cut into the beam).

Main-Breadth - The broadest part of the ship at any particular timber or frame, which is distinguished on the sheer-draught by the upper and lower heights of breadth lines.

Main Deck - The uppermost complete deck.

Main Half-Breadth - Half of the main-breadth, and thus called, because it is necessary to lay down on the plan but half of the figure of the ship, both sides being exactly alike.

Main-Keel - The term of distinction between the keel and the false-keel.

Main Mast - The tallest mast; the forward mast of a yawl or ketch; the mast furthest aft on a schooner.

Main-Post - The same with STERN POST, and used to distinguish it from the false-post and the inner-post.

Mainsail - The principal sail that is set on the main mast.

Mainsheet - The line that controls the angle of the mainsail in its relation to the wind.

Main Topsail - A topsail on the main mast.

Main-Wales - The lower wales, which are generally placed on the lower breadth, and so that the main-deck knee-bolts may come into them.

Manger - An apartment extending athwart the ship immediately within the hawse-holes. It serves as a fence to interrupt the passage of water which may come in at the hawse-holes, or from the cable when heaving in; and the water thus prevented from running aft is returned into the sea by the manger scuppers, which are larger than the other scuppers on that account.

Marconi Rig - The most common type of sail used today, a triangle-shaped mainsail defined by the mast and one horizontal boom perpendicular to the mast.

Nautical Terms For The Model Ship Builder

Margin-Line - A line or edge parallel to the upper-side of the wing-transom, and about five inches below it, at which place terminate all the butts of the bottom planks abaft. The latter are made good by the tuck-rail.

Marine Clothing Room - An apartment built on the larboard side of the after platform to receive the clothing of the marines.

Marl - To wrap a small line around another.

Marline - Pronounced "marlin" - small line used for whipping, seizing, and lashing.

Marling Hitch - Used for lashing down sails, awnings, etc., a series of round turns where the end is passed over the standing part and under the bight and pulled taut on each turn.

Martingale - On square-rigged ships, the stay which holds the jib-boom down against the pull of the fore topgallant-mast stays.

Mast - The vertical pole or spar that supports the boom and sails. a mast on a mechanically propelled vessel holds electronics antennas, lights, etc.

Mast Boot - A protective cover wrapped around the mast at the deck on a keel stepped boat to prevent water from entering the boat.

Mast-Carlings - Those large carlings which are placed at the sides of the mast-rooms for the purpose of framing the partners.

Mast Head - The top of the mast.

Mast Hoops - Rings around a mast which can slide vertically, attached to the forward edge of a sail, which hold the sail in place.

Mast Partners - Reinforcements for a mast where it passes through a deck.

Mast Slot/Groove - The opening in the back (aft) edge of the mast in which the mainsail luff rope slides when it is hoisted. Some masts have an external sail track.

Mast Step - The fitting in the bottom of the boat in which the bottom or heel of the mast sits.

Mast Tangs - Fittings on the mast to which the forestay and shrouds attach.

Mast Track - A track or groove in the back of the mast to which the sail is attached by means of lugs or the bolt rope.

Masthead - The top of a mast.

Masthead Rig - A design in which the forestay runs to the top of the mast.

Mess - Dining room facilities and kitchen for crew separate from the passenger dining room and kitchen.

Mess Deck - Where meals are eaten.

Messenger - A large cable laid rope used to heave in the cable by the main capstan.

Messroom - A dining room on a ship.

Middle Line - A line dividing the ship exactly in the middle. In the horizontal or half-breadth plan it is a right line bisecting the ship from the stem to the stern-post; and, in the plane of projection, or body-plan, it is a perpendicular line bisecting the ship from the keel to the height of the top of the side.

Middle Timber - That timber in the stern which is placed in midships.

Middle Wales - The three or four thick strakes worked along each side, between the lower and middle deck ports in three-decked ships.

Midships - In the middle portion of the boat - Roughly halfway between a ship's stem and stern, and where the beam usually is the widest.

Midship-Bend, or Frame - That bend which is called Dead-Flat.

Miterd - If two pieces of wood be joined so as to make a right angle, and the two ends be put together so as to form a line making an angle of 45 degrees, the joint is said to be mitered.

Mizzen - A small sail set on the mizzenmast.

Mizzenmast - The mast aft of the mainmast in a sailing ship - the shorter mast behind the main mast on a ketch or yawl, or the third aftermost mast of a three-masted schooner or square-rigged ship.

Mold Loft - The large enclosed floor where the lines of a vessel are laid out and the molds or templates made.

Monkey Fist - A large heavy knot usually made in the end of a heaving line to aid in accurate throwing.

Monohull - A boat with one hull.

Moonraker - On square-rigged ships, a small light square sail set above the skysail in fair weather. If the sail were triangular, it would be called a Skyscraper.

Mooring Bitt - A strong pair of iron, steel or wooden posts on a ship's deck, around which ropes or cables are wound and held fast.

Mooring Line - A line used to secure a boat to an anchor, dock, or mooring.

Mooting - Making a treenail exactly cylindrical to a given size or diameter called the moot. Hence, when so made, it is said to be mooted.

Mortise - A hole or hollow made of a certain size and depth in a piece of timber. in order to receive the end of another piece with a tendon fitted exactly to fill it.

Motor - (1) An engine. (2) The act of using an engine to move a boat.

Mould-Loft - A place in building yards appropriated for laying off ships to their full size, for the purpose of making the moulds from which the whole frame. is provided. The floor is one large even flat surface, and in general painted black, that the various lines may more easily be discerned. Some in laying off ships raise the lines in with a pointed instrument, while others only chalk them in. The size of mould-lofts are various, those in the royal yards are very large and commodious, but those in merchant yards are generally about 100 feet long and 30 feet wide.

Multi-Hull - A vessel formed of two or more hulls. A catamaran has two hulls, and a trimaran has three hulls.

Mushroom Anchor - A type of anchor with a heavy inverted mushroom shaped head. Mushroom anchors are used to anchor in mud and other soft ground.

N

National Flag - The flag carried by a ship to show her nationality.

Naval Architect - One who designs ships.

Naval Architecture - The art and science of designing vessels.

Navigation Bridge - The bridge used for taking observations, or directing the handling of the ship.

Naval-Hoods - Broad pieces of oak, from 6 to 10 inches thick, according to the size of the ship,) worked afore the hawse-holes on the outside of the ship, and likewise above and below them, in those ships which have no cheeks to support a bolster; the naval-hoods thus formed answering the same purpose.

Navigation Lights - Required lights on a boat help others determine its course, position and what it is doing. Boats underway should have a red light visible from its port bow, a green light on the starboard bow and a white light at its stern. Other lights are required for vessels under power, fishing, towing, etc.

Necking - A small neat molding at the foot of the taffarel over the light.

Newell - An upright piece of timber to receive the tendon of the rails that lead from the breast hook to the gangway.

Nip - (1) A short turn or twist in a line. (2) The seized part of an eye splice.

Nipper - A short length of line, usually braided or marled, used to temporarily bind the anchor cable to the messenger when the anchor is weighed by hand around the capstan.

Nog - A treenail projecting from the bottom of the ship as a stop to the heads of shores. Also a treenail driven through the heels of shores into the slip to secure them.

Nogging - The act of securing the heels of the shores.

Norman - A pin placed through the head of a rudder to prevent it from being lost.

O

Oakum - A material made of tarred hemp or manila rope fibers, used for caulking seams of decks and sides of a wooden ship in order to make them watertight.

Oar - A pole with a blade at the end used to row a rowboat. Oars are different than paddles because they have a provision to be secured to the rowboat for rowing, such as an oarlock. The three parts to an oar are: the blade, the part which enters the water; the shaft, the main body of the oar; and the loom, the inboard end on which the rower pulls.

Oarlock - A device to attach oars to a rowboat, allowing the operator to row rather than paddle the boat.

Officer's Mess - Dining room facilities for officers separate from the crew and passenger dining room.

Official Number - Definition and cross-reference to Tonnage.

On Board - On or in a ship.

On the Beam - The direction at right angles to a ship's heading or the line of her keel.

On the Bow - To the bow of the boat, forward of the beam.

One-design - Any boat built to certain standards or rules so that is like all others in the same class.

Orlop - Name given to the lowest deck in a ship.

Outboard - (1) Toward or beyond the boat's sides. (2) A detachable engine mounted on a boat's stern.

Outdrive - A propulsion system for boats with an inboard engine operating an exterior drive, with drive shaft, gears, and propeller; also called stern-drive and inboard/outboard.

Outer Skin - The outside plating of a vessel.

Outhaul - A control line that adjusts tension along the foot of the sail, pulling the clew away from the tack; used to maintain proper sail shape.

Out of Winding - Not twisting; as the surface of a timber or plank when it is a direct plane.

Nautical Terms For The Model Ship Builder

Outrigger - A structure which extends outboard beyond the edge of the hull for some special purpose. Some Polynesian canoes use outriggers to support an "ama" or small secondary hull, while fishing boats may use outriggers to suspend lines or nets over the water.

Out-Square - Any obtuse angle or standing beveling is said to be "out-square." This term is however mostly applied to knee-timber, when the angle the arms make is greater than 45 degrees.

Overhang - The area of the bow or stern projecting above and beyond a perpendicular from the water line at stem or stern.

Overhead - Nautical equivalent of ceiling

Over-Launch, to - To run the butt of one plank to a certain distance beyond the next butt above or beneath it, in order to make stronger work.

Owner's Flag - A boat owner's private pennant.

P

Paddle - A stick with a blade in the end of it used to propel a small boat through the water; The act of using a paddle to propel a boat.

Painter - A line tied to the bow of a small boat for use in towing, securing or tying up.

Palleting Beams - are those beams under the flat of the magazine, bread-room, and powder-room, where there is a double palleting. Those of the upper tier are of fir, and rabbets taken out of their edges to form scuttles.

Palls - Stout pieces of iron, so placed near a capstan or windlass as to prevent a recoil, which would overpower the men at the bars when heaving.

Panels - A square or pane of thin board, framed in a thicker one, called a stile, and generally composed of two or more joined together. Such are the partitions by which the officers' cabins are formed on the lower deck; and such likewise are the framings of the great cabin bulkheads. which consist of rails, stiles, and panels.

Parclose - Limber hole of a ship.

Parting Strop - Strop inserted between two hawsers, and weaker than the hawsers, so that strop, and not hawsers, will part with any excessive strain.

Partners - A framework of supporting structures used to support areas where high loads come through openings in the deck, such as the opening in the deck through which the mast passes.

Passenger Ship - A ship that is authorized to carry more than twelve passengers.

Nautical Terms For The Model Ship Builder

Pay, To - To lay on a coat of tar, with a mop or brush, in order to preserve the wood and keep out water, when one or more pieces are scarped together, as the beams. the inside of the scarps are paid with tar as a preservative; and the seams after they are caulked are fayed with pitch to keep the water from the oakum.

Peak - The upper corner of a four sided sail or outer end of the gaff.

Pedestal - Columnar support for the steering wheel in the cockpit.

Pedestal Rail - A rail, about two inches thick, that is wrought over the foot-space rail, and in which there is a groove to steady the heels of the balusters of the galleries.

Pennant - A small tapering flag, which can be used for identification or communication.

Piggin - Very small wooden pail having one stave prolonged to form a handle. Used as a bailer in a boat.

Pilasters - Flat columns or ornaments, prepared by the joiners, generally of deal, fluted or reeded, with molded caps and bases, which are placed upon the munions of the ward-room lights. for the purpose of ornamenting the stern and quarter-galleries, particularly when the walk or balcony does not project aft. They are likewise used on the munions of the bulkheads of captain's cabin and offices.

Pillar - Any steel bar or column, fitted vertically, to support a deck, or any part of a ship's structure. Also called a stanchion.

Pillow - Block of timber mounted on the deck just inside the bow on which the inner end of the bowsprit was supported.

Pilothouse - A compartment on or near the bridge of a ship that contains the steering wheel and other controls, compass, charts, navigating equipment and means of communicating with the engine room and other parts of the ship. Also known as wheelhouse.

Pin Rail - A rail fastened along the inside of the bulwarks of a vessel and pierced to hold belaying pins.

Pinnace - Formerly, a small, two-masted sailing vessel sometimes with oars.

Pins - Short iron rods fixed occasionally in the drumheads of capstans, and through the ends of the bars, to prevent their unshipping. They are confined near their respective places by a chain. Others of a larger size, are driven through the bits to belay ropes to; and smaller ones are fixed in racks in different parts of the ship to belay the rigging to. The upright parts of the bits are also commonly called bitt-pins.

Pins and Plates - Pins of iron occasionally drawn out to support the palls of the capstan, and fitted in plates.

Pins of Boats - Pins of iron or wood, fixed along the gunwales of some boats, instead of rowlocks, whose oars are confined by grommets.

Nautical Terms For The Model Ship Builder

Pintle - A tapered metal pin which fastens the rudder to the stern by dropping into gudgeons.

Pink - A ship with a very narrow round stern; whence all vessels, however small, having their sterns fashioned in this manner, are said to be pink-sterned.

Pitch - Tar, boiled to a harder and more tenacious substance.

Pitching - The inclination or vibration of the ship lengthwise about her centre of gravity; or the motion by which she plunges her head and after part alternately into the hollow of the sea. This is a very dangerous motion, and, when considerable, not only retards the ship's way, but endangers the masts and strains the vessel.

Plan - The area or imaginary surface defined by or within any described lines. In ship-building, the Plan of Elevation, commonly called the SHEER DRAUGHT, is a side-plan of the ship, defined by a surface limited by the head afore, by the stern abaft, the keel below, and the upper side of the vessel above. The Horizontal Plan, commonly called the HALF BREADTH PLAN, comprehends all the lines describing the greatest breadth and length of the ship at different heights or sections. This is named half-breadth plan, because both sides of the ship being exactly alike, only one-half is represented. To the foregoing must be added, the Plan of Projection, commonly called the BODY PLAN, which exhibits the outline of the principal timbers, and the greatest heights and breadths of the same.

Planing Hull - A type of hull shaped to glide easily across the water at high speed.

Plank - A general name for all timber, excepting fir, which is from one inch and a half to four inches thick. Of less dimensions it is called board.

Plank Sheer - On a wooden vessel, the outermost deck plank covering the gunwale. also called Covering Board.

Planking - Wood boards used to cover the ribs, frames, deck or hull of a wooden vessel.

Plan of the Transom, The - is the horizontal appearance of them, to which the moulds are made, and the beveling taken.

Platforms - Are a sort of temporary or lighter kind of deck, those forward and aft have the store-rooms and cabins on, and the platform in the midships have the cables stowed thereon.

Plimsoll Line - The mark stencilled in and painted on a ship's side, designated by a circle and horizontal lines to mark the highest permissible load water lines under different conditions.

Plumb - Perpendicular or upright. The term originates from plumbum, or lead, as the perpendicular is generally ascertained by a lump of lead suspended by a cord, and generally called a Plumb Line.

Pointers or Braces - Timbers sometimes fixed diagonally across the hold, to support the beams.

Nautical Terms For The Model Ship Builder

Point-Iron, or Brass - A larger sort of plumb, formed conically and terminating in a point, for the more nicely adjusting any thing perpendicularly for a given line.

Pole - (1) A spar. Such as a pole used to position a sail (e.g., spinnaker pole or whisker pole, which serves the same purpose for a jib). (2) One of the two points around which the earth spins, known as the north and south poles.

Pontoon - A hollow, watertight tank used to give buoyancy.

Poppets - Those pieces, mostly fir, which are fixed perpendicularly between the ship's bottom and the bilge-ways, at the fore and aftermost parts of the ship, to support her in launching.

Poop Deck - The short aftermost raised deck of a vessel.

Poop Rail - A rail surrounding the poop deck.

Port - (1) The left side of the boat when facing forward; originally called larboard. The opposite of starboard. (2) - A porthole. A window in the side of a boat, usually round or with rounded corners. (3) A harbor.

Porthole - Openings in a ship's hull for ventilation, light and other purposes.

Port Hooks - Iron hooks driven into the side of the ship; and to which the port-hinges are attached.

Port-Lids - The shutters, hung with hinges, which enclose the ports in rough weather.

Powder-Room - A convenient apartment, built abaft in large and forward in small ships, with racks. for holding cartridges filled with powder.

Prevernter-Plates - Stout plates of iron, bolted through the sides at the lower part of the chains, as an additional security.

Pram - A flat bottomed, blunt nosed dinghy (or small boat).

Preventer - (1) Line and blocks or the boom vang used to keep the boom in place while reaching or running and to prevent an out of control swing during an accidental jibe. (2) Any additional line or wire temporarily rigged to back up any standing rigging in heavy weather.

Prizing - Lifting or removing a heavy body by means of a lever.

Profile - The draught or scheme of the inboard works, which is usually described in red lines.

Proof Timber - An imaginary timber, expressed by vertical lines in the sheer-draught, similar to the joints of the square timbers, and used nearly forward and aft to prove the fairness of the body.

Prop - Slang for propeller.

Nautical Terms For The Model Ship Builder

Propeller - A rotating device, with two or more blades, that acts as a screw in propelling a vessel. Sometimes called a screw.

Prow - The bow and forward part of the vessel above the waterline.

Pulpit - An elevated guardrail set up at the bow of a vessel. When erected at the stern, it is called a pushpit.

Pump - The machine, fitted in the wells of ships, to draw water out of the hold.

Pump-Cisterns - Cisterns fixed over the heads of the pumps, to receive the water until it is conveyed through the sides of the ship by the pump-ales.

Pump-Dales - Pipes fitted to the cisterns, to convey the water from them through the ship's sides.

Punt - A small flat bottomed boat square at either end.

Purse Seine - The small boats used to drag and close the Seine.

Pushpit - A pulpit located on the stern.

Q

Q Flag, Quarantine Flag - The Quebec pennant is flown when first entering a country, indicating that the people on the ship are healthy and that the vessel wants permission to visit the country. The flag means "My vessel is healthy and I request free pratique.

Quarter - (1) That portion of the vessel forward of the stern and abaft of the beam. "On the quarter" applies to a bearing 45° abaft the beam. Every boat has a starboard and a port quarter. (2) Mercy shown to captives or enemies, such as giving quarter to the passengers of a seized vessel.

Quarter Berth - A bunk which runs under the cockpit.

Quarter Boat - Boat carried at davits on quarter of ship, and kept ready for immediate use when at sea.

Quarter-Galleries - The projections from the quarters abaft, fitted with sashes and balusters, and intended both for convenience and ornament to the aft part of the ship.

Quartering - Timber under five inches square.

Quarter-Pieces - Substantial pieces of timber, mostly fir, that form the out-boundary of the stern, and connect the quarter-gallery to the stern and taffarel.

Quarter-Rails - Rails fixed into stanchions from the stern to the gangway, and serving as a fence to prevent any one from falling overboard. or birthing up to the quarters.

Quarter Spring - Line led forward, from quarter of a vessel, to prevent her from moving astern.

Quarterdeck - The part of the upper deck which is abaft the mainmast, or in that general location of a ship without one. The quarterdeck was normally reserved for officers.

Quarters - Living space for the crew.

Queen Topsail - Small staysail located between the foremast and mainmast.

Quicken, To - To give any thing a greater curve. For instance, "To Quicken the Sheer," is to shorten the radius by which the curve is struck; this term is therefore opposed to straightening the sheer.

Quickwork - A denomination given to the strakes which shut in between the spirketting and clamps. By quickwork is also sometimes meant, all that part of a ship or vessel which is below the level of the surface of the water when she is laden.

R

Rabbet or Rebate - A joint made by a groove, or channel, in a piece of timber cut for the purpose of receiving and securing the edge or ends of the planks, as the planks of the bottom into the keel, stem, or stern post, or the edge of one plank into another.

Rack - The operation of temporarily holding two lines together by seizing.

Radar - Radio Detection and Ranging. An electronic instrument that uses radio waves to find the distance and bearing of other objects. Used to avoid collisions, particularly in times of poor visibility.

Radar Arch - An arch to mount the radar, usually at the stern of the boat.

Radar Reflector - An object designed to increase the radio reflectivity of a boat so that it is more visible on radar. Many small boats are made with fiberglass and other materials that do not reflect radar very well on their own.

Radio - An instrument that uses radio waves to communicate with other vessels. VHF very high frequency - radios are common for marine use, but are limited in range.

Raft - A small flat boat, usually inflatable.

Raft-Port - A large square hole framed and cut through the buttock between the transoms, or forward in the bore, between the breast hooks, and through which masts, planks, deals. are taken into store-ships, or merchant-ships, carrying such

cargoes which, owing to their great length, cannot be gotten on board in any other way.

Rag-Bolt - A sort of bolt having its point jagged or barbed to make it hold the more securely.

Rail - (1) The edge where the deck joins the hull; top edge of bulwarks. (2) The railing around the deck.

Rake - The inclination of a vessel's mast from its vertical position. The rake may be either forward or aft, and can be deliberately induced (by adjustment of the standing rigging) to flatten sails, balance steering, etc. Normally slightly aft. The term can also be used to describe the degree of overhang of a vessel's bow and stern.

Ram - A strengthened or armored projection from the bow of a warship for the purpose of disabling or sinking an enemy ship by ramming her.

Ram-Line - A small rope or line sometimes used for the purpose of forming the sheer or hang of the deck, for setting the beams fair.

Ranges - Horned pieces of oak, like belaying cleats, but much larger, bolted to the inside of the ship, in the waist, for belaying the tacks and sheets. Also those pieces of oak plank fixed between the ports, with semi-circular holes in them for keeping shot in.

Rasing - The act of marking by a mould on a piece of timber; or any marks made by a tool called a rasing-knife.

Rate - The denomination of the different classes of ships, according to their number of guns. Thus those of 100 guns and all above, are called first rates; those of 98 and 90 guns, second rates; from 80 to 64 guns, third rates; from 60 to 50 guns, fourth rates; from 40 to 32 are fifth rates; and all under are sixth rates; excepting yachts, fire ships, and hospital ships, which are rated as fifth rates.

Ratlines - Small lines tied between the shrouds that form steps to function as a ladder to climb the rigging.

Rave-Hook - A hooked tool used by square-makers, to haul out the small chips when enlarging the butts for receiving a sufficient quantity of oakum.

Reciprocating Engine - A form of steam engine where a piston moves back and forth inside a cylinder, transmitting its motion to a driving shaft by a connecting rod and crank.

Reconciler or Reconciling Sweep - A curve which reconciles the floor and lower-breadth sweeps together, and thus the shape of the body is formed below the breadth.

Reconcile, To - To make one piece of work answer fair with the molding or shape of the adjoining piece, and, more particularly, in the reversion of curves.

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Reef - (1) The rolled up part of a sail, tied with the reef lines, that is used to reduce sail area for heavy winds; To reduce the sail area. (2) A group of rocks or coral generally at a depth shallow enough to present a hazard to navigation.

Reef Cringles - Reinforced cringles or thimbles in the sail designed to hold the reefing lines when reefing the sail.

Reef Knot - Also known as the square knot, it is formed by two half hitches in which the ends always fall in line with the outer parts. This knot is used to loosely tie lines around the bundles of sail that are not in use after reefing.

Reef Lines - Short pieces of line fastened to the sail at reef points, used for tying a reef to reduce sail area. The reef line will pass through reef cringles, which will become the new tack and clew of the reefed sail.

Reef Points - Short lengths of line attached to the sail used to tie the extra sail out of the way when reefing.

Reeming - A term used by caulkers for opening the seams of the planks, that the oakum may be more readily admitted.

Reeming-Irons - The large irons used by caulkers in opening the seams.

Reeve - To pass or lead a line through a block or other object. When the end of a line is passed through anything, it is said to be "rove" through it.

Relieve, To - To make a set near to another that cannot be set on any more till it is taken on each side.

Render - (1) The action of a line as it passes over the sheave of a block. (2) The act of easing away gently.

Rends - Large open splits or shakes in timber, particularly in plank, occasioned by its being exposed to the wind and sun.

Revenue Cutter - A single masted cutter built expressly for the prevention of smuggling and the enforcement of customs regulations.

Rhodings of the Pumps - The brass cleats on which the axles work.

Rib Bands - The longitudinal pieces of fir, about five inches square, nailed to the timbers of the square body those of the same description in the cant body being shaped by a mould and called Harpins to keep the body of the ship together, and in its proper shape, until the plank is brought on. The shores are placed beneath them. They are removed entirely when the planking comes on. The difference between Cant Rib bands and Square or Horizontal Rib bands is that the latter are only ideal, and used in laying off.

Rib Band-Lines - The same with diagonal lines.

Ribs - The frames or timbers of a ship as they rise from the keel to form the shape of the hull.

Riders - Interior ribs to strengthen and bind the parts of a ship together, being fayed upon the inside stuff, and bolted through all. They are mostly used in ships of war, and are variously situated, as the Floor Riders, which are fayed athwart the keelson, and should be disposed upon the first futtocks of the ship. The next are the lower or first futtock riders, which fay alongside the floor-riders, and give scarp above them. These are completed by cross-chocks athwart their heels, that scarp to each side with hook and butt. The next are second futtock riders, which fay alongside of the first futtock riders, down to the floor riders, and run up to the orlop beams. The third futtock riders fay alongside the second futtock riders, scarp or meet the first futtock riders, and run up to the gun-deck beams. The whole are bolted together fore and aft-wise. The riders next above the foregoing are called breadth riders, and are placed nearly in the broadest part of the ship hence their name,) and diagonally so as to partake of two or more timbers, the strength depending much thereon. Lastly, the top-riders are the uppermost; they stand nearly the same as breadth riders, and very much strengthen the topside. Riders are not so much required in merchant ships as in ships of war, excepting floor and lower riders, which are generally of iron,) because, in merchant ships the cargo being generally stowed low down, the upper works are not liable to strain and labour like those in ships of war laden high up with heavy metal.

Rig - The way a boats spars and sails are arranged. To rig a vessel is to fit her with masts, spars, sails and running and standing rigging; term is also used to mean the setting up a device, e.g., to rig a lifeline, a tackle, etc.

Rigging - A general term applying to all the lines, stays and shrouds necessary for spars and sails. The standing rigging is the mast, shrouds and stays, while running rigging refers to halyards and sheets that control the sails.

Rims - Those pieces which form the quarter galleries between the stools. Also a cast iron frame in which the dropping palls of a capstan traverse and bring up the capstan.

Rings - Circles of iron, or other metal, for lifting things by hand or securing the points of bolts. Hatch Rings are those which are fixed to the hatches or scuttles, to open or shut them with. Port Rings are those which are fixed to the port or scuttle lids to haul them open by, or bar them in.

Rising - A term derived from the shape of a ship's bottom in general, which gradually narrows, or becomes sharper towards the stem and the stern post. On this account, the floor, towards the extremities of the ship, is raised or lifted above the keel: otherwise the shape would be so very acute, as not to be provided from timber with sufficient strength in the middle or cutting-down. The floor timbers forward and abaft, with regard to their general form and arrangement, are therefore gradually lifted or raised upon the solid body of wood called the dead or rising-wood, which must, of course, have more or less rising as the body of the ship assumes more or less fullness or capacity.

Risings of Boats, The - a narrow strake of board fastened within side to support the thwarts.

Rising Half-Breadth, or Narrowing of the Floor-sweep - A curve line, on the half-breadth plan, which determines the distance of the radius of the floor-sweeps from the middle line.

Rising Floors - The floors forward and abaft, which, on account of the rising of the body, are the most difficult to be obtained, as they must be deeper in the throat or at the cutting down, to preserve strength.

Rising-Line - An elliptical line, drawn on the plan of elevation, to determine the sweep of the floor-heads throughout the ship's length, which accordingly ascertains the shape of the bottom with regard to its being full or sharp.

Rising-Square - A square used in whole molding, upon which is marked the height of the rising-line above the upper edge of the keel.

Rising Straight - in whole molding, is a curve line in the sheer plan, drawn at the intersection of the straight part of the bend mould, when continued to the middle line at each respective timber.

Rivet - A metal pin by which the plating and other parts of iron and steel vessels are joined. Rivets are known by their heads, such as: Flush, pan, snap, plug, tap, countersunk, mushroom, and swollen neck.

Roach - A curve out from the aft edge (leech) of a sail. Battens are sometimes used to help support and stiffen the roach.

Rocker - The upward curvature of the keel towards the bow and stern.

Rode - The anchor line, cable or chain that connect the anchor to the boat.

Rogue Knot - Seaman's name for a reef knot tied upside down. also called a "granny" knot.

Rollers - Cylindrical pieces of timber revolving on an axis, and so fixed above the deck, either horizontally or perpendicularly, as to prevent the chafing of the cable or hawser. against the Jear and top-sail sheet bitts. Those placed forward in the manger are for the use of the royal or messenger.

Rooms - The different vacancies between the timbers, and likewise those between the beams, as the MAST-ROOMS, CAPSTAN-ROOM, HATCH-ROOM. Also the different apartments or places of reserve, of which there are a number in a ship, as the Bread-Room, an apartment in the hold abaft for containing the bread for the ship's use. The Fish-Room, an apartment next adjoining, in which cured or dried fish was formerly stored, but which is now generally used as a coal-hole, and to stow spirits in. The Captain's and Lieutenant's Store-rooms, are two apartments built near each other on the starboard side of the after platform, for those officers to store their wine in. Sail-Rooms are built between decks upon the orlop or lower deck to contain the spare sails. The Spirit-Room is built in the hold, next before the fish-room, to contain the spirituous liquors for the use of the ship's company. Besides these, there are several other store-rooms in which the carpenter's, boatswain's, and gunner's stores are kept; with the Steward's-Room, whence most of the provisions are issued, and which is the place appointed for the purser's steward to transact his business in. The Filling Room is a place parted off and lined with lead in the magazine, wherein the powder is started, in order to fill the cartridges.

Rooms and Space - The distance from the molding edge of one timber to the molding edge of the next timber, which is always equal to the breadth of two

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timbers, and two to four inches or more. The room and space of all ships that have ports should be so disposed that the scantling of the timber on each side of the lower ports, and the size of the ports fore and aft, may be equal to the distance of two rooms and space.

Rope - When rope comes aboard a vessel and is put to use, it is called line, although some still call it rope if it is over one inch in diameter. A coil of rope that is not designated for any particular use.

Rose Box - The strainer at the end of the suction pipe of a bilge pump which prevents solid material in the bilges from being sucked into the pump and choking it. Also known as a strum box.

Rough-Tree-Rails - Rails along the waist and quarters, nearly breast-high, to prevent persons from falling overboard. This term originated from the practice in merchant vessels of carrying their rough or spare-gear in crutch-irons along their waist.

Round-Aft - The segment of a circle that the stern partakes of from the wing-transom upward.

Round-House - That part of the ship abaft, which is above the quarter-deck, fitted up with cabins. for the accommodation of the officers.

Round-Houses at the Head - Conveniences or seats of ease for the officers.

Round Stern - The stern of a vessel whose bottom, wales. are wrought quite aft, and unite in the stern-post. Few English vessels are built on this construction, excepting small vessels, as hoys.

Rowboat - A small boat designed to be rowed by use of its oars. Some dinghies are rowboats.

Rowlocks - The scores in the sides of boats wherein the oars or sculls are confined to row them with.

Row Ports - Square scuttles cut through the sides of frigates, sloops, and small vessels, one between each port in midships, through which the sweeps are worked to row them along in a calm or light wind. In point of utility they are therefore similar to rowlocks along the gunwale of boats.

Round-up of the Transoms - The segment of a circle to which they are sided, or of beams to which they are molded.

Royal - On a square-rigged ship, a light weather sail set next above the topgallant-sail in fair weather.

Rubrail - Also rubbing strake or rub strake. An applied or thickened member at the rail, running the length of the boat; serves to protect the hull when alongside a pier or another boat.

Rudder, or Rother - The machine, attached to the stern post, by the pintles and braces, which serve to direct the course of the ship. It is formed of several pieces of

timber, of which the main piece is generally of oak, extends the whole length, and forms the head. The bearding piece, which forms the fore part, is of elm, and derives its name from its shape, because from the middle, each way, it is shaped angle-wise, or bearded to two-fifths of its thickness, or less if the stern-post is bearded back, that the rudder occasionally may form an obtuse angle with the ship's length. The other pieces are of fir.

Rudder-Chocks - Large pieces of fir, to fay or fill up the excavation on the side of the rudder hole; so that the helm being in midships the rudder may be fixed, and supposing the tiller broken, another might thus be supplied.

Rudder-Irons - A name by which the pintles are frequently called.

Rudder Pendants - Ropes to prevent the loss of the rudder in case of its being unshipped by accident.

Rudder Post - The post that the rudder is attached to. The wheel or tiller is connected to the rudder post.

Run - The narrowing of the ship abaft, as of the floor towards the stern-post, when it becomes no broader than the post itself. This term is also used to signify the running or drawing of a line on the ship, or mould loft floor, as "to run the wale line," or deck line.

Running Backstay, Runners - Adjustable stays used to support and control tension on the mast when the wind is from abaft the beam; temporary backstays used to stabilize the mast and prevent undue flexing due to the pumping action of the sea.

Running Bowline - A type of knot that tightens under load. It is formed by running the standing line through the loop formed in a regular bowline, or by tying around a bight in the line.

Running Lights - Lights required to be shown on boats underway between sunset and sunrise; they tell other vessels not only where you are, but what you are doing.

Running Rigging - All control lines such as sheets and halyards used to control the sails.

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Saddle - A block of wood or a bracket attached to a spar to support another spar attached to it.

Sagging - In seamanship, SAGGING to leeward, signifies the movement by which a ship makes considerable leeway, or is driven far to leeward of the course on which she apparently sails. But as a phrase applied to the hull of the ship is the very reverse of HOGGING, as then the midship part of the ship by straining arches upwards, whereas in sagging, by a different sort of strain, it curves downwards.

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Sail - A large piece of fabric designed to be hoisted on the spars of a sailboat in such a manner as to catch the wind and propel the boat.

Sail Shape - The shape of a sail, with regard to its efficiency. Controls such as the cunningham, boom vang, outhaul, traveler, halyards, leech line, sheets, and the bend of the mainmast all can affect sail shape. Also sail trim.

Sail Track - A slot into which the bolt rope or lugs in the luff of the sail are inserted to attach the sail.

Sailboat - A boat which uses the wind as its primary means of propulsion.

Sailcloth - A fabric, usually synthetic, used to make sails.

Sailing Rig - The equipment used to sail a boat, including sails, booms and gaffs, lines and blocks, etc.

Salon - Also saloon; the main social cabin of a boat

Sampson's Post - A large pillar or stanchion placed up diagonally on each side against the quarter-deck beam, and next afore the cabin bulkhead, with its lower end tendoned into a chase on the upper deck. It is used to bring the fish-tackle too when fishing the anchor. This name is also given to the pillar immediately under the hatchways, having scores on each side, as steps, to go up and down by. This pillar is of so much larger scantling than the other pillars, as not to be too much weakened by the scores.

Saws - The most useful instruments used in carpentry. The hand-saw is the smallest, and is used by one hand. The two-hand or cross-cut-saw is much longer, and is used by two men. The whip-saw is the longest of all, being that generally used in a saw-pit, or for the more laborious purposes. The hack-saw is made of a scythe jagged at the edge, and used chiefly for cutting off iron bolts.

Scale - The graduated lines, divided into equal parts, and placed at the bottom of the sheer draught. as a common measure for ascertaining the dimensions by the plan; and for this purpose each of the larger divisions represents a foot, and the subdivisions, inches.

Scantlings - The dimensions of all parts which go into the construction of a ship's hull.

Scarf or **Scarph** - The joining of two timbers by beveling the edges so the same thickness is maintained throughout the length of the joint.

Schooner - A fore-and-aft rigged sailboat with two or more masts. The aft mast is the same size or larger than the forward ones.

Scow - A boat with a flat bottom and square ends.

Screen Bulkhead - The after bulkhead under the round-house.

Screw - A boat's propeller.

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Scupper - An opening in a deck, cockpit, toe-rail or gunwale to allow water to run off the deck and drain back into the sea.

Sea Boat - Ship's boat kept ready for immediate lowering while at sea. When used for life-saving, it was called an "accident boat" or lifeboat.

Seacock - A through hull valve, a shut off on a plumbing or drain pipe between the vessel and the sea

Seam - On vessels constructed of wood, the narrow gap between the planks which form the decks and sides and were caulked to make them watertight. Since wood swells when it's in contact with water, a narrow seam is necessary to allow for the expansion.

Seine - The large nets used for fishing they have weights on one edge and floats on the other. They can be closed to contain the fish.

Seize - (1) To bind a line with marline, cord, twine, wire, or other "small stuff" to prevent accidental opening or unraveling (2) To freeze up, as a valve.

Seized - Bound together.

Seizing - The cord, twine or other small stuff which is used to seize line.

Shackle - A U-shaped fitting closed with a pin across the open ends, the pin sometimes being threaded at one end and sometimes held in place with a cotter pin, and used to secure sails to lines or fittings, lines to fittings, fittings to fittings, anchors to chain, etc.

Shaft Strut - A term applied to a bracket supporting the after end of the propeller shaft and the propeller.

Shallop - (1) Small boat for one or two rowers. (2) Small fishing vessel with foresail, boom mainsail, and mizzen trysail.

Shank - The main shaft of an anchor which connects the arms to the anchor ring.

Shear Pin - A safety device, used to fasten a propeller to its shaft; it breaks when the propeller hits a solid object, thus preventing further damage.

Sheathing - A covering to protect the bottom of a boat.

Sheepshank - A knot used to temporarily shorten a line.

Sheer - The straight or curved line of the deck line; curvature of the lines of a vessel toward the bow and stern.

Sheer Plan - A vertical longitudinal center line section of a vessel.

Sheer Strake - The topmost planking in the sides, next below the gunwale, often thicker than other planking.

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Sheet Bend - A hitch used to join two ropes. It can be used between lines of different diameters.

Shell - (1) The outside plating of a ship from stem to stern. (2) The outer casing of a block inside which the sheave revolves.

Ship - (1) Generic name for a large sea-going vessel. (2) To take an object aboard, such as cargo, or water. (3) To put items such as oars on the boat when not in use.

Shipwright - A ship builder, or one who works about a ship. Does wood carpentry on the ship and keeps ships faired. Builds launching ways and launches ship.

Shoe - (1) A false keel. (2) The projection of the keel abaft the stern frame where the spindle of the rudder rests.

Short Splice - To permanently join two pieces of rope. It will not pass through a block since it increases the diameter

Shroud - Part of the standing rigging that helps to support the mast laterally by running from the top of the mast to the side of the boat. Sailboats usually have one or more shrouds on each side of the mast. Some people call them side stays

Skeg - An extension of the keel for protection of propeller and rudder.

Skeleton (Of a vessel) - The hull without the outside and inside plating.

Screws, Bed or Barrel - A powerful machine for lifting large bodies; and when placed against the gripe of a ship, to be launched for starting her . It consists of two large poppets or male screws, having holes through their heads to admit levers, a bed formed by a large oblong piece of elm, with a female screw near each end to admit the poppets, and a sole of elm plank for the heels of the poppets to work on, agreeably to the annexed figure. Those used as last described, have an inclined sole so as to stand square to the stem or knee.

Scroll - A spinal ornament fastened at the drifts. Likewise the finish of the upper part of the hair bracket.

Scuttles - Square openings cut through the decks, much less than the hatchways, for the purpose on handing small things up from deck to deck. There are also scuttles cut through the sides of the ship, some for the admission of air and light into the cabins between decks, and some between the ports, through which the sweeps are used, to row the ship along in calms, and one is cut in each port-lid of two-deck ships to admit air and light between decks.

Seams - The openings between the edges of the planks when wrought.

Seasoning - A term applied to a ship kept standing a certain time after she is completely framed and dubbed out for planking, which should never be less than six months when circumstances will permit. Seasoned plank or timber is such as has been cut down and sawn out one season at least, particularly when thoroughly dry, and not liable to shrink.

Seat - The scarp or part trimmed out for a chock. to fay to.

Seating - That part of the floor which fays on the deadwood; and of a transom which fays against the post.

Seat Transom - That transom which is fayed and bolted to the counter-timbers, next above the deck transom, at the height of the port sills.

Section - A draught or figure, representing the internal parts of the ship, at any particular place athwartships.

Setting, or Setting-To - The act of making the planks. fay close to the timbers, by driving wedges between the planks. and a wrain-staff. Hence we say, "Set, or set away," meaning to exert more strength. The power or engine used for the purpose of setting is called a SETT, and is composed of two ring-bolts, and a wrain-staff, cleats, and lashings.

Shackles - The small ring-bolts driven into the ports, or scuttles, and through which the lashing passes when the ports are barred in.

Shaken, or Shakey - A natural defect in plank or timber when it is full of splits or clefts, and will not bear fastening or caulking.

Shank-Painter - A chain bolted through the topside, abaft the cathead, to retain the shank and flukes of the anchor when stowed.

Sheathing - A thin sort of doubling, or casing, or fir-board or sheet copper, and sometimes of both, over the ship's bottom, to protect the planks from worms. Tar and hair, or brown paper dipped in tar and oil, is laid between the sheathing and the bottom.

Sheave - A cylindrical wheel made of hard wood, moveable round a rim as its axis, and placed in a block, of which there are several in the sides of a ship, let through the side and chest-tree, for assisting to lead the tacks and sheets on board.

Shell-Rooms - A compartment in a bomb-vessel, fitted up with shelves to receive bomb-shells when charged.

Sheer - The longitudinal curve or hanging of the ship's side in a fore and aft direction.

Sheer Draught - The plan of elevation of a ship, whereon are described the outboard works, as the wales, sheer-rails, ports, drifts, head, quarters, post and stem. the hang of each deck inside, the height of the water-lines.

Sheer-Rails - The narrow ornamental moldings along the topside, which are parallel to the sheer. They are generally made of deal but are sometimes wrought from the solid plank.

Sheer-Strake - The strake or strakes wrought in the topside, of which the upper edge is wrought well with the top-timber line, or top of the side, and the lower edge kept well with the upper part of the upper deck ports in midships, so as to be continued whole all fore and aft, and not cut by the ports. It forms the chief strength

of the upper part of the topside, and is therefore always worked thicker than the other strakes, and scarped with hook and butt between the drifts.

Sheer-Wales, or Middle-Wales - Those strakes of thick stuff in the topside of three-decked ships which are wrought between the middle and lower deck ports.

Sheers - Two rough masts erected across the building slip, for hoisting the ship's frames. They are lashed together at their upper ends, with tackles depending from the intersection at top; and are kept upright by guys extending forward and aft from the heads. The heels are lashed to prevent their spreading.

That some judgment may be formed of the dimensions of sheers, we subjoin the following, which are sufficient for raising the stern-frame of the largest ship in the English navy. Two masts, each nineteen inches and a half in diameter, and sixty-six feet long, spread at the heels, from out to outside, forty-six feet four inches. The tackles, consisting of four treble blocks, twenty-eight inches long, the sheaves brass coated. The falls new eight-inch rope. One treble block lashed, so as to be fixed to the aft part of the sheers, and another to the foreside. Shivers to stand nearly athwartships, and fair with the leading-block at the heels of the sheers, to prevent the fall from rubbing against the cheeks of the blocks. One treble block lashed to the back of the stern frame, between the deck and filling transoms, to stand athwartships, and lead to the opposite sheer. To have a double tackle at the head of the stern-post, the fall 3-1/2 inch rope, to browse the head forward occasionally, with a double tackle at the heel of 4-1/2 inch rope, to ease it forward or browse it aft as required. One double tackle at each end of the wing transom, called horning tackles, to lead to the standards most convenient to horn or square the frame as wanted. The after treble block at the sheer head is to plumb the after part of the wing transom as nearly as possible, and the guys to steady the sheer-heads, two to lead forward and two aft on each side of the slip, to be seven inch hawsers.

Shift - A term applied to disposing the butts of the planks. so that they may over launch each other without reducing the length, and so as to gain the most strength. The planks of the bottom, in British-built ships of war, have a six-foot shift with three planks between each butt, so that the planks run twenty-four feet long. In the bottoms of merchant ships they have a six-foot shift with only two planks between each butt; making but eighteen-foot planks in length. The shift of the timbers are more or less according to the contract.

Shifting - The act of setting off the length of the planks of the bottom, topside. that the butts may over-run each other, in order to make a good shift. Replacing old stuff with new is also called shifting.

Sholes - Pieces of oak or plank, placed under the soles of the standards; or under the heels of the shores, in docks or slips where there are no ground ways, to enable them to sustain the weight required without sinking. Old hanging port-lids are particularly suitable and useful for this purpose.

Shores - Those pieces of timber fixed under the rib bands, or against the sides and bottom of the ship to prop her up whilst building.

Shot-Lockers, or Garlands - Apartments built up in the hold to contain the shot. Also pieces of oak plank, fixed against the head-ledges and coamings of the hatch and ladderway, or against the side between the ports to contain the shot; for which

purpose they are hollowed out to near one-third of its diameter, so that the balls lie in them about one inch asunder. It is the latter that are termed garlands.

Shrinking - The contraction or loss of substance in timber as it gets dry.

Shrouds - The range of large ropes extended from each side of the ship to the mast-heads for the support of the masts.

Side Counter Timber - The stern timber which partakes of the shape of the topside and heels upon the end of the wing transom.

Siding, or Sided - The size or dimensions of timber the contrary way to the molding, or mould side.

Sills, or Cells - The pieces of plank, or timber, let in horizontally between the frames to form the lower and upper sides of the ports, and between the timbers for scuttles.

Sirmarks - The different places marked upon the moulds where the respective beveling are to be applied, as the lower sirmark, floor sirmark.

Skeg - The after part of the keel, or that part whereon the stern-post is fixed.

Skeg-Shores - One or two-pieces of four-inch plank, put up endways under the skeg of the ship, to steady the after part a little when in the act of launching. They are confined to the bottom of the ship by a hinge. The upper part is rounded, and they should be so carefully fixed as to fall readily when the ship starts; for the writer hereof once saw a seventy-four-gun ship detained from launching by her skeg-shore only.

Skids - Pieces of oak plank, formed to the topside of the ship, and extending vertically from the wales to the top of the side. Their use is, to preserve the ship's side from being injured by weighty bodies, when hoisted into or lowered out of the ship, but as they are seldom wanted, for the reason heretofore given under the article FENDERS, their tendency to conduce to the decay of the sides ought to explode them.

Skiff - Technically, a flat-bottomed boat, but often used to name any small boat for rowing, sculling, or fitted with an outboard motor

Skin - (1) The plating of a ship. (2) A term often used for planking.

Skylight - A framing of metal fitted over an opening in a deck, with glass or plexiglass inserted for the admission of light into a cabin, engine room, etc.

Skysail - On a square-rigged ship, a light weather sail set next above the royal in fair weather.

Skyscraper - On a square-rigged ship, a small triangular sail set above the skysail in fair weather. A square version is called a Moonraker.

Sleepers - Pieces of compass timber fayed and bolted upon the transoms and timbers adjoining, within side, to strengthen the buttock of the ship.

Nautical Terms For The Model Ship Builder

Slices - Tapering pieces of plank, used to drive under the false keel, and settle the ship upon.

Sliding-Keels - An invention of the ingenious Captain Schank, of the Royal Navy, to prevent vessels from being driven to leeward by a side wind. They are composed of plank of various breadths, erected vertically, so as to slide up and down, through the keel.

Sliding Planks - are the planks upon which the bilgeways slide in launching.

Sliding Ways - A structure of heavy timbers placed between ground ways and cradle to support the ship during launching.

Slip - The foundation laid for the purpose of building the ship upon, and launching her.

Sloop - According to the general acceptation of the word, a small merchant or coasting vessel with one mast. But all ships of the Royal Navy carrying less than twenty guns, and being above the class of gun-vessels, are denominated sloops, excepting bomb-vessels and fire-ships.

Slop-Room - The place appointed for the purser to keep the ship's slops in.

Snape, To - To hance or bevel the end of any thing so as to fay upon an inclined plane.

Snap Hook - A metal fitting with an arm that uses a spring to close automatically when connected to another object.

Snatch Block - A block with a single sheave which is hinged and opens on the side so that the bight of a line can be led into the block and closed without running the whole length through

Snow - A vessel similar in construction to a brig, but the largest of vessels fitted with two masts. It has a square foresail and mainsail, with a trysail abaft, resembling the mizzen of a ship, and hoisted by a gaff upon a small mast, close abaft the main-mast, which is called the trysail mast.

Snying - A term applied to planks when their edges round or curve upwards. The great sny occasioned in full bows or buttocks is only to be prevented by introducing steelers.

Sole - Cabin or salon deck or floor; the inside deck of the ship

Spaling - Keeping the frames of a ship to their proper breadths by the cross-spales, which should so remain till some of the deck knees are bolted.

Spanish Hackle - A large bolt driven through the forecastle and upper deck beams, and forelocked under each beam. It has a large square ring at the head, for the purpose of receiving the end of the davit. It has however been long since disused in the Royal Navy, as the davits are more commodiously fixed in the fore-channels.

Nautical Terms For The Model Ship Builder

Spanker - An additional sail hoisted on the mizzen mast to take advantage of a following wind.

Spar - A pole used as part of the sailboat rigging, such as masts, booms, gaffs, yards, etc. A vertical spar is a mast.

Spider - An outrigger used to hold a block clear of a mast or of the ship's side.

Spiles - Small wooden pins, which are driven into nail-holes, to prevent leaking.

Spilings - The dimensions taken from a straight line, a mould's edge, or rule-staff, to any given line or edge.

Spirit Room - A place built abaft the after-hold to contain the spirits.

Spla-Boards - Boards or plank fixed to an obtuse angle, to throw the light into the filling room of a magazine.

Splashboard - A raised portion of the hull forward of the cockpit intended to prevent water entering.

Spritsail - A four-sided fore-and-aft sail set on a sprit.

Spirkitting - A thick strake, or strakes, wrought within side upon the ends of the beams or waterways. In ships that have ports the spirkitting reaches from the waterways to the upper side of the lower sill, which is generally of two strakes, wrought anchor-stock fashion; in this case, the planks should always be such as will work as broad as possible, admitting the butts be about six inches broad.

Sprung - A term indicating that a plank. is strained so much in the working as to crack or fly open and so as to be nearly broken off. To SPRING, is to quicken or raise the sheer.

Spurn Water - A channel left above the ends of a deck to prevent water from coming any further.

Spurs - Large pieces of timber, the lower ends of which are fixed to the bilgeways, and the upper ends fayed and bolted to the ship's bottom. They are used in some of the Royal Yards, although not by merchant builders, as an additional security to the bilgeways in case any other part should fail in launching the ship.

Square, A - An instrument formed by a stock and a tongue, fixed at right angles. To SQUARE is to horn or form with right angles; and to STAND-SQUARE is to stand or be at right angles relatively to some object.

Square Body - The figure which comprehends all the timbers whose areas or planes are perpendicular to the keel, which is all that portion of a ship between the cant-bodies.

Square Knot - A knot consisting of two overhand knots used to join two lines of similar size. Also called a reef knot. Squawk Box - Ship's intercom system

Square Maker, A - A shipwright who cuts the butts to receive the oakum, and prepares the work ready for the caulkers.

Square Rib Bands - The same as horizontal rib bands.

Square Rigger - Large ships dating back to the 17th century typically with three masts carrying rectangular sails mounted on horizontal spars called yards. A sailing-ship rig with rectangular sails set approximately at right angles to the keel line from horizontal yards.

Square-Sterned - A term applied to ships whose wing-transom is at right angles, or nearly at right angles, with the stern-post, and towards the upper side of which the upper planks of the bottom butt, or finish, in a rabbet formed by the tuck-rail; the other part of the plank stopping at the side counter timbers, by which means the stern may be commodiously fitted with sashes, walks. All British ships are now built upon this principle, whilst many of other nations are still constructed by the ancient methods; hence we so frequently hear the phrase of "square-sterned and British built," as our practice in this respect justly claims the superiority over that of all nations.

Square Timbers - The timbers which stand square with, or perpendicular to, the keel.

Square Tuck - A name given to the after part of a ship's bottom when terminated in the same direction up and down as the wing-transom, and the planks of the bottom end in a rabbet at the foreside of the fashion piece; whereas ships with a buttock are round or circular, and the planks of the bottom end upon the wing-transom.

Stability - That quality which enables a ship to keep herself steadily in the water, without rolling or pitching. Stability in the construction, is only to be acquired, by fixing the centre of gravity at a certain distance below the meta-centre, because the stability of the vessel increases with the altitude of the meta-centre above the center of gravity. But when the meta-centre coincides with the centre of gravity, the vessel has no tendency whatever to remove out of the situation into which it may be put. Thus if the vessel be inclined either to the starboard or larboard side, it will remain in that position till a new force is impressed upon it; in this case, therefore, the vessel would not be able to carry sail, and is consequently unfit for the purposes of navigation. If the meta-centre falls below the common centre of gravity, the vessel will immediately overset.

Stabilizers - Wing-like retractable devices extending from the sides of the vessel to dampen down rolling in seas and produce a steadier, smoother, and more comfortable motion.

Stanchion - A vertical support for guardrails and lifelines.

Starboard - The right side of the boat when facing forward.

Stargazer - On a square-rigged ship, a small sail set in light weather above the moonraker.

Stages - The platforms on which the shipwrights work.

Standards - (1) Large knees, of oak or iron, fayed on the deck and against the side. The arm upon the deck is bolted through the beams and clenched beneath, and the

other arm through the ship's side. Their use is, for strengthening the sides, and resisting any violent or sudden shock. (2) There is also a standard fayed on the gun-deck against the apron forward, another against the transoms abaft, and one in the head upon the knee, when the piece against the stem does not run high enough for the hole of the main-stay collar. (3) are also large poles, set up endways at certain distances round the slips, and to which the spars are hung to support the staying. They have cleats nailed along the fore and after sides, at about two feet distance, in nearly the whole length.

Standing - A term applied to a beveling which is obtuse, or without a square, to distinguish it from an acute or under beveling, which is within a square.

Staples - Crooked fastenings. KEEL-STAPLES are generally made of copper, from six to twelve inches long, with a jagged hook at each end. They are driven into the sides of the main and false keels to fasten them.

Stateroom - Cabin; sleeping compartment.

Stay - A line or wire from the mast to the bow or stern of a ship, for support of the mast; rigging used to support the mast from forward or aft.

Staysail or Stays - A triangular fore-and-aft sail carried on a stay. A sail that is set on a stay, and not on a yard or a mast. On a cutter this is the sail located between the jib and the main sail

Steadying Sail - Also stability sail or riding sail. Any small sail set to help the boat maintain its direction without necessarily moving, as when at anchor or in heavy weather.

Steamer - A steamship. A ship propelled by a steam engine.

Steeler or Stealer - A name given to the foremost or aftermost plank, in a strake which drops short of the stem and stern-post, and of which the end or butt nearest the rabbet is worked very narrow, and well forward or aft. Their use is, to take out the snying edge occasioned by a full bow, or sudden circular buttock.

Steering-Wheel - The wheel on the quarter deck to which the tiller rope is connected; and by turning of which, the helm is moved or kept in any fixed position.

Stem The main timber at the fore-part of the ship, formed, by the combination of several pieces, into a circular shape, and erected vertically to receive the ends of the bow planks, which are united to it by means of a rabbet. Its lower end scarp or boxes into the keel, through which the rabbet is also carried, and the bottom unites in the same manner.

Stempost - The principal vertical timber in a ship's bow.

Stemson - A piece of compass timber, wrought on the aft part of the apron within side, the lower end of which scarp into the kelson. Its upper end is continued as high as the middle or upper-deck; and its use is to succor the scarps of apron, as that does those of the stem.

Stepped - A mast that is in place is stepped.

Stepping - A rabbet sunk in the dead-wood, at the bearding-line, whereon the heels of the timbers rest.

Steps of the Masts - The steps into which the heels of the masts are fixed, are large pieces of timber. Those for the main and fore masts are fixed across the keelson, and that for the mizzen mast upon the lower deck beams. The holes or mortises into which the masts step, should have sufficient wood on each side to accord in strength with the tendon left at the heel of the mast, and the hole should be cut rather less than the tendon, as an allowance for shrinking.

Step for the Capstan - A solid lump of oak, fixed on the beams, in which the heel of the capstan works.

Steps for the Ship's Side - The pieces of quartering, with moldings, nailed to the sides, amidships, about nine inches asunder, from the wale upwards, for the convenience of persons getting on board

Stern - The after part of the ship extending from the wing-transom upwards, being terminated above by the taffarel, below by the counters, and on the sides by the quarter-pieces. It therefore comprehends the lights or windows of the captain's cabin.

Stern Brackets - are carved ornaments on the munions, under the taffarel, at the arch of the cove, and sometimes under the balcony.

Stern-Frame - The strong frame of timber, composed of the stern-post, transom and fashion-piece, which form the basis of the whole stern.

Stern Line - A line running from the stern of the boat to a dock or pier when moored.

Stern Post - (1) A large casting shaped to allow the propeller blades to revolve. The rudder is fitted on the after post. (2) The principal vertical timber in a ship's stern, upon which the rudder is fastened.

Stern Pulpit or **Stern Rail** - A sturdy railing or elevated guard rail around the deck at the stern. also known as Pushpit

Stern Tube - The bearing which supports the propeller shaft where it emerges from the ship.

Stewards Room - An apartment built on the larboard side of the after platform, whence the purser's steward issues the provisions to the ship's company, and where he makes up his accounts.

Stiff - Stable or steady.

Stiles - The upright pieces of the framing of the great cabin bulkheads. which comprehends the panels.

Stirrup - An iron or copper plate, that turns upwards on each side of a ship's keel and dead-wood, at the fore-foot, or at her skeep, and bolts through all. This can only

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be necessary when the dead-wood bolts are driven short, or are supposed to be insufficient.

Stiving - The elevation of a ship's cathead or bowsprit; or the angle which either makes with the horizon.

Stock - A crossbeam at the upper part of an anchor.

Stools - Pieces of plank, bolted to the quarters, for the purpose of forming and erecting the galleries. Also ornamental blocks for the poop lanterns to stand on abaft.

Stoppers - Short ropes, with a knot at one end, and the other end turned round a thimble into the ring of the stopper-bolts, by which, and its lanyard, the cable is confined.

Stopper-Bolts - Large ring-bolts, driven through the deck and beams before the main-hatch, for the use of the stoppers. They are carefully clinched on iron plates beneath.

Stopper Knot - A knot used to form a knob in the end of a line to prevent the end from running through a block or other narrow space.

Stopping-up - The poppets, timber. used to fill up the vacancy between the upper-side of the bilgeways and the ship's bottom, for supporting her when launching.

Store-Rooms - The several apartments built upon the platform to contain the different officers' stores.

Storm Trysail - A very strong sail used in stormy weather. It is loose footed, being attached to the mast, but not the boom. This helps prevent boarding waves from damaging the sail or the rigging.

Strake - On wooden boats, a line of planking running from the bow to the stern along the hull.

Straight of Breadth - The space before and abaft dead-flat, in which the ship is of the same uniform breadth, or of the same breadth as at dead-flat.

Strake - One breadth of plank wrought from one end of the ship to the other, either within or without board.

String - One or two strakes of plank within side, next under the gunwale, answering to the sheer-strake with outside, scarped in the same manner as the sheer-strake, giving shift to the scarps of the sheer-strake, and bolted through the ship's side into the sheer-strake between the drifts, to give greater strength; as this part requires all the security that is possible to be given in order to assist the sheer.

Stringer - A longitudinal stiffener for the side of a ship, made of angle bar, bulb angle channel or plates, etc. Depending upon their locations, stringers are known as bilge stringers, side stringers, hole stringers, etc.

Supernatant Part of the Ship - That part which when afloat, is above the water, anciently expressed by the name of Dead Work.

Superstructure - Any structure built above the top full deck, such as a deck house, bridge, etc.

Supporters - The circular knees placed under the catheads for their security and support.

Surge - The tapered part of the whelps, between the chocks of the capstan, upon which, when judiciously hollowed, the messenger may surge itself without any other encumbrance.

Sweep of the Tiller - A semi-circular plank, fixed up under the beams near the fore-end of the tiller, which it supports.
On the foreside of the sweep is a groove for the tiller rope, in which groove rollers are fixed to enliven the rope. On the aft side is a ledge or rabbet defended with iron plate, on which the goose-neck of the tiller traverses.

Sweeps - The various parts of the bodies shaped by segments of circles. Such are the floor-sweeps, lower breadth-sweep, upper breadth-sweep, and back-sweep, or top timber-hollow.

Syphered - A mode of joining, by over-lapping the edge of one plank upon another, with a beveling edge, instead of rabbeting, in such a manner that both planks shall make a plain surface, though not a flat or square joint.

T

Tabernacle - A hinged mast step located on deck. Since it is hinged, the mast may be raised and lowered easily.

Tabling - Letting one piece of timber into another by alternate scores or projections from the middle, so that it cannot be drawn asunder either lengthwise or sidewise.

Tack - (1) The lower forward corner of a triangular sail (2) The direction that a boat is sailing with respect to the wind. A sailboat cannot sail directly into the wind, and must therefore sail a zig zag course to windward, at about a 45 degree angle to the wind. (3) To change a boat's direction, bringing the bow through the eye of the wind.

Tackle - A purchase where two or more blocks are used to increase mechanical advantage, or the power exerted on a line. (pronounced "taykle").

Taffarel, or Taff-Rail - The upper part of the ship's stern, usually ornamented with carved work or molding, the ends of which unite to the quarter-pieces.

Tail, To, or Dove-Tail, To - To let one piece of timber into another, when the lap forms a sort of wedge, so that it cannot come asunder endwise.

Take-In, To - To come up with a set and make it fast again closer to the plank, as it works nearer to the timbers.

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Tang - A metal fitting on the mast that the stays attached to the mast; a fitting on the mast for securing rigging.

Tanker - A tanker is a bulk carrier designed to transport liquid cargo, most often petroleum products.

Tanks - Are of two kinds: First, those built in permanently and part of the ship's structure, used for the reception of water ballast, fuel, oil, or liquid cargo; second, those constructed specially and removable if necessary. These vary greatly in size and shape and the purpose for which used.

Tar - The juices of the pine or fir-tree boiled to a thick consistence, and used to pay the joints between scarps of beams. and also the outside of the ship; because, by filling up the pores of the wood, it prevents the sun from splitting, and the wet from rotting it.

Teach, To - A term applied to the direction that any line. ms to point out. Thus we say, "let the line or mould teach fair to such a spot, rase,"

Telltails - Ribbon, yarn, or other lightweight material attached to rigging or sails to indicate wind action or direction. Proper use of the telltales can help sailors improve their sail trim.

Tenon - The square part at the end of one piece of timber diminished so as to fix in a hole of another piece, called a mortise, for joining or fastening the two pieces together.

Terms or Term-Pieces - Pieces of carved work placed under each end of the taffarel, upon the side stern-timber, and reaching as low down as the foot-rail of the balcony.

Tether - A line attached between a safety harness and a secure part of the boat.

Thickstuff - A name for sided timber, exceeding four inches, but not being more than twelve inches, in thickness.

Thole, Thole Pin - Metal or wooden peg inserted in gunwale of a boat for an oar to heave against when rowing without crutch or rowlock.

Throat - The inside of knee timber at the middle or turn of the arms. Also the midship part of the floor timbers and transoms.

Thwarts - The benches in a boat whereon the rowers sit to manage their oars.

Thwartships or Athwartships - Across the ship, or from one side to the other. RIGHT ATHWART, signifies square, or at right angles, with the keel.

Tier - A regular row of any thing, as of carlings, of shores, of ships.

Tiller - A bar or handle for turning a boat's rudder or an outboard motor, thereby steering the boat.

Tiller Extension - Hinged extension of the tiller which allows the skipper to control the tiller while hiking or sitting forward.

Timber Hitch - Method of securing a line around a spar by taking the standing part around the spar, then a half hitch around itself and the end tucked three or four times around its own part.

Timbers - A name generally given to the pieces of timber which compose the frame of a ship, (as floor-timbers, futtock-timbers, and top timbers); as also the stem or head-timbers, and the stern-timbers. Sometimes those carved ornaments upon the munions, in the stead of pilasters, are called stern-timbers.

Toe-rail - A small low rail around the deck of a boat. The toe rail may have holes in it to attach lines or blocks and to allow drainage. A larger wall is known as a gunwale.

Tongue - A long tapered end of one piece of timber made to fit into a scarp at the end of another piece. This method is used to gain length, and is called tonguing.

Tongue of a Bevel - The moveable part by which the angles or beveling are taken.

Tongue, Calves - is a sort of molding usually made at the caps and bases of turned or round pillars to taper or hance the round part into the square.

Tonguing - is lengthening the main-piece of timber by another piece generally shorter. The one piece is fitted into the other by a long tapering TENON or tongue, and both are bolted and sometimes hooped together.

Tonnage - The cubical content, or burthen of a ship in tons; which is commonly estimated by a fantastical rule, given hereafter, producing what is denominated the builder's tonnage. The real burthen a ship is to carry, when brought down in the water to the load draught of water intended in the construction, may be found by the rules given in the subsequent part of this work.

The word is derived from a ton, or weight of water equal to 2000 pounds; for it appears that anciently, a cubic foot of water, weighing 62-1/2 pounds, was assumed as a general standard for liquids. This cubic foot, multiplied by 32, gives 2000, the original weight of a ton. Hence 8 cubic feet of water made a hogshead, and 4 hogshead a ton, in capacity and denomination as well as weight.

Top - on square-rigged ships, a platform at the masthead resting on the trestletrees and crosstrees. In addition to being a work platform, it extended the topmast shrouds to give additional support to the topmast.

Top and Butt - A method of working English plank so as to make good conversion. As the plank runs very narrow at the top clear of sap, this is done by disposing the top-end of every plank within six feet of the butt end of the plank above or below it, letting every plank work as broad as it will hold clear of sap, by which method only can every other seam produce a fair edge.

Top-Hamper - Any unnecessary weight aloft, either on the topside of the ship or about its tops and rigging.

Topgallant - (1) The mast section next above the topmast and below the royal mast. (2) The yard supported by that mast. (3) The third lowest square sail. It is stretched between the topgallant yard and the top yard.

Topmast - A second mast carried at the top of the fore or main mast, used to fly more sail.

Topsail - The sail above the lowermost sail on a square-rigged ship; also, the sail set above and sometimes on the gaff on a gaff rigged boat.

Topsail Schooner - A schooner with a square rigged sail on the forward mast.

Topside - A name given to all that part of a ship's side above the main-wales.

Topsides - (1) The sides of a vessel between the waterline and the deck. (2) Referring to on or above the deck; "I'm going topsides".

Top-Timbers - The timbers which form the topside. The first general tier which reach the top are called long top-timbers, and those below are called the short top-timbers.

Top-Timber Line - The curve limiting the height of the sheer at the given breadth of the top-timbers.

Top-Timber Half-Breadth - A section containing one half of the ship, at the height of the top-timber line, perpendicular to the plane of elevation.

Touch - The broadest part of a plank worked top and butt, which place is six feet from the butt-end, or, the middle of a plank worked anchor-stock fashion. Also the sudden angles of the stern-timbers at the counters.

Trail-Boards - A term for the carved work, between the cheeks at the heel of the figure.

Trailing Edge - The aft edge of a sail, more commonly called the leech.

Transoms - The thwartships timbers which are bolted to the stern-post, in order to form the buttock; and of which the curves, forming the round aft, are represented on the horizontal, or half-breadth plan of the ship

Transom-Knees - Knees bolted to the transoms, and the side of the ship in the direction of the transoms. These knees when they cross the transoms are called Sleepers.

Transporting - Moving a ship from one situation to another by hawsers only.

Transporting-Blocks - Two snatch blocks, fitted one on each side above the taffarel to admit a hawser, when transporting the ship from one place to another.

Transverse Bulkhead - A bulkhead placed athwartships.

Transverse Section - A thwartships view of any part of the ship; but may be more properly applied when the section is not strictly athwartships.

Trawl - A large net with its mouth held open, towed by a trawler along the bottom to catch bottom fish.

Tread of the Keel - The whole length of the keel upon a straight line.

Treenails - Cylindrical oak pins driven through the planks and timbers of a vessel to fasten or connect them together. These certainly make the best fastenings when driven quite through, and caulked or wedged inside. They should be made of the very best oak split out near the butt, and perfectly dry or well seasoned.

Trestle Trees - Two short pieces of timber fixed horizontally fore and aft on each side of the lower masthead of a square rigged vessel and used to support the topmast, the lower crosstrees, and the top.

Triatic Stay - A stay leading from one mast, such as the main mast to another, such as the mizzen mast.

Tricing Battens - Battens about two inches thick and four inches broad, nailed up under the deck between the beams, and which the sailors trice up the middle of their hammocks out of the headway.

Trimaran - A multihulled boat with three hulls.

Trim, To - To work or finish any piece of timber or plank into its proper form or shape.

Tripline - A line attached to the crown of an anchor and used to help free it in the event it becomes fouled.

Trunk - The tall, narrow, waterproof box that houses a vessel's centerboard and allows it to be retracted into the ship's hull.

Truss - Short pieces of carved work, mostly in small ships, fitted under the taffarel in the same manner as the term-pieces.

Trysail - A small, heavy triangular loose-footed sail fitted aft of the mast and used primarily in very strong winds.

Tuck-Rail - The rail which is wrought well with the upper side of the wing-transom, and forms a rabbet for the purpose of caulking the butt ends of the planks of the bottom.

Tuck, The - The aft part of the ship where the ends of the planks of the bottom are terminated by the tuck-rail, and all below the wing-transom when it partakes of the figure of the wing-transom as far as the fashion-pieces.

Tug, Tugboat - A powerful, strongly built boat designed to tow or push other vessels, and to assist in maneuvering a ship in a confined area.

Tumbling Home, or Falling Home - The inclination of the top-side from a perpendicular towards the centre or the middle of the ship. The top-sides of three-decked ships have the greatest tumbling home, for the purpose of clearing the upper

works from the smoke and fire of the lower guns.

Turk's Head - An ornamental knot to provide a stopper on the end of a line.

Turn of the Bilge - The point where the bottom and the sides of a ship join.

Turnbuckle - A threaded, adjustable fitting, used for stays, lifelines and sometimes other rigging. It is used to maintain correct tension on standing rigging. Can also be used to pull objects together.

Turning Block - Horizontally mounted block used to re-direct a line on deck.

Turtle Back - The top of a wheelhouse, forecastle, etc., having the form of a turtle's back. 'tween Decks - The space between any decks.

U

Under - A term applied to any beveling that is within a square, or forming an acute angle.

Unfurl - To unfold or unroll a sail. The opposite of furl.

Unreeve - To run a line completely through and out of a block, fairlead, etc.

Unship, To - To remove any thing from its place, or the situation in which it is generally used. Thus, to unship the tiller, is to take it out of the rudder-head.

Up and Down - Said of cable when it extends vertically and taut from anchor to hawsepipe.

Upper-Deck - The highest of those decks which are continued throughout the whole length of a ship, without falls or interruption.

Upper Strake of Boats - A strake thicker than those of the bottom, wrought round the gun-wales.

Upper Works - A general name given to all that part of the ship above the wales; or all that part which may be considered as separated from the bottom by the main-wale.

Upright - The position of a ship when she neither inclines to one side nor the other. Hence any thing is said to be upright when square with, or perpendicular to, the keel. As the ship when building lies with a declivity for the purpose of launching, it is evident, that every thing within her intended to be perpendicular or upright, when afloat, must be set so much farther aft as its upper part or head inclines from a plumb or perpendicular in its length, according to the angle made by the declivity of the ship in the same length.

V

V-Berth - Usually the forward berth of the boat, located in the bow.

V-Bottom - A hull with the bottom section in the shape of a "V."

Van - The leading ship, or ships, in a fleet or squadron.

Vane - A small flag placed at the mast head to show wind direction.

Vang - A control line, usually a multi-purchase tackle, secured to the boom to prevent it from lifting. Can also apply to other spars, such as gaffs.

Vertical Clearance - The distance between the water level at chart datum and an overhead obstacle such as a bridge or power line.

Vessel - A general term for a floating craft that carries passengers, cargo or both

Voyal - A large rope, used to unmoor, or heave up the anchor, by communicating the effect of the capstan to the cable.

W

Waist - A name given to that part of the top-side above the upper deck, between the main and fore drifts.

Wales - The principal strakes of THICKSTUFF wrought on the outside of the ship upon the main-breadth, or broadest part of the body, and which are called the main-wales. Also those that are wrought between the ports, which are called the channel-wales and middle or sheer-wales. The main-wales are the lower wales, which are generally placed on the lower breadth.

Wall Knot - A stopper not in the end of a line.

Wall-Sided - A term applied to the top-sides of a ship when the main-breadth is continued very low down and very high up, so that the top-sides appear straight and upright like a wall.

Ward-Room - The apartment in which the officers mess. next under the captain's cabin.

Wash-Board - A shifting strake along the top-sides of a small vessel, used occasionally to keep out the sea.

Water Lines, or Lines of Flotation - Those horizontal lines, supposed to be described by the surface of the water on the bottom of a ship, and which are exhibited at certain depths upon the sheer-draught. Of these, the most particular are those denominated the Light Water Line and the Load Water Line; the former, namely, the light-water line, being that line which shews the depression of the ship's

body in the water, when light or unladen, as when first launched; and the latter, which exhibits the same when laden with her guns and ballast or cargo. In the half-breadth plan these lines are curves limiting the half-breadth of the ship at the height of the corresponding lines in the sheer-plan.

Waterline Length - The length of the boat at the waterline. 2

Watertight Bulkhead - A bulkhead that will not let water pass from one side of it to the other.

Watertight Compartment - A compartment having a watertight bulkhead at each end.

Water Ways - The edge of the deck next the timbers, which is wrought thicker than the rest of the deck, and so hollowed to the thickness of the deck as to form a gutter or channel for the water to run through the scuppers.

Wedge - A triangular solid, much used in the construction of a ship, and too well known to need description. It is one of the mechanic powers, the most simple and of the greatest force.

Well - The apartment formed in the middle of the hold, by bulkheads erected to enclose the pumps, and protect them from injury, which might otherwise accrue from the lading and ballast, and also to give ready admittance for examining the state of the pumps. The well in a fishing smack is a strong apartment to contain live fish, built water-tight in the middle of the hold, with a number of holes through its bottom, by means of which the fish are continually supplied with water, and preserved alive.

Well Deck - The two spaces on the main deck of an older type merchant ship, one between the forecastle and the midships housing which supports the bridge, and the other between this midships area and the poop deck. Most modern merchant vessels are now built with the bridge aft and an uninterrupted flush deck from the bridge to the bow of the ship.

Well-Grown - This term implies that the grain of the wood follows the shape required, as in knee timber.

Wetted Surface - The whole of the external surface of a vessel's hull that is in contact with the water in which she is floating.

Wheel - (1) Device used for steering a boat. (2) Slang for a ship's propeller.

Wheelhouse - The deckhouse of a vessel where the helm is located.

Whelps - The brackets or projecting parts of a capstan from the barrel.

Whip, Whipping - To bind the strands of a line with a small cord. Winding twine or heavy thread around the end of a line to keep it from unraveling

Whisker Pole - A pole connected to the mast and the clew of the jib, to hold the jib out when going downwind

Whole-Molded - A term applied to the bodies of those ships which are so constructed, that one mould made to the midship bend, with the addition of a floor-hollow, will mould all the timbers below the main-breadth, in the square-body. Before the art of ship-building was brought to its present perfection, the method of whole-molding was in great repute, and was much practiced by the unskillful; as, however, the art improved, this method became less approved of in the construction of ships, whose form of the midship bend was required to be such, that if they were whole-molded nearly forward and aft, they would not only be incapable of rising in a heavy sea, but be deprived in a great measure of the more advantageous use of the rudder; for, by whole-molding, no more is narrowed at the floor than at the main-breadth; nor must the rising line lift any more than the lower height of breadth, which according to the form of some midship-bends, would make a very ill constructed body. How far whole molding may be used without injury may be seen by the Long Boat treated of hereafter; boats being now the only vessels in which this method is practiced.

Widow-maker - A term for the bowsprit (many sailors lost their lives falling off the bowsprit while tending sails).

Wildcat - A special type of drum or sprocket on a windlass constructed to handle the anchor chain links. Also referred to as a chain gypsy.

Winch - A small windlass, with an iron axis, hung in RHODINGS or gudgeons, with a conical piece of timber at each end without the cheeks. It is heaved round by two iron handles, formed by cranks or winches, from which it takes its name.

Winch Head - A drum (usually of small diameter and concave) on a winch. Designed for taking and holding the turns of a rope.

Winding - Twisting or curving. Hence the expression "winding" is used in opposition to "out of winding."

Winding-Board - is a piece of deal on which the windings of the side counter timber is marked, and from which the outside of the said timber is trimmed by a batten kept out of winding by the marks on the board, and a mould made to the shape of the topside.

Windlass - A special form of winch used to hoist the anchors. It has two drums designed to grab the links of the anchor chains and is fitted with ratchet and braking device suitable for "paying out" chain. - A windlass revolves around a horizontal axis, as opposed to a capstan, which rotates around a vertical axis.

Windlass-Chocks - Pieces of oak or elm, fastened to the sides of small vessels, and by which the ends of the windlass are suspended.

Wings - The places next the side upon the orlop, usually parted off in ships of war, that the carpenter and his crew may have access round the ship, in time of action, to plug up shot holes.

Wing-Transom - The uppermost transom in the stern-frame, upon which the heels of the counter timbers are let in and rest. It is by some called the main-transoms.

Nautical Terms For The Model Ship Builder

Wishbone - A boom composed of two separate curved pieces, one on either side of the sail. With this rig, sails are usually self tending and loose-footed.

Within-Board - Within the ship.

Without-Board - Without the ship.

Wood and Wood - This term implies that when a treenail is driven through its point is directly even with the inside surface, whether plank or timber.

Wood-Lock - A piece of elm or oak, closely fitted, and sheathed with copper, in the threading or score of the PINTLE, near the load-water line; so that, when the rudder is hung, and the wood-lock nailed in its place, it cannot rise, because the latter butts against the underside of the brace and butt of the score.

Wrain-Bolts - Ring bolts, used when planking with two or more forelock holes in the end for taking in the sett, as the plank. works nearer to the timbers.

Wrain-Staves - A sort of stout billets of tough wood, tapered at the ends so as to go into the ring of the wrain-bolt to make the sets necessary for bringing-to the planks or THICKSTUFF to the timbers.

Wring-Heads - An ancient name given to that part of the ship near the floor-heads and second futtock heels, which, when a ship lies aground, bears the greatest strain.

X

Xebec - An old three-masted vessel used in the Mediterranean.

Y

Yacht - A sailboat or powerboat used for pleasure, not a working boat.

Yankee - (1) A fore-sail flying above and forward of the jib, usually seen on bowsprit vessels. (2) A foresail used on yachts similar to a genoa, but cut narrower, with its leech not overlapping the mainsail, and a higher clew.

Yard - A spar from which a square sail is hung. A long spar, tapered at the ends, attached at its middle to a mast and running athwartships at right angles to the mast; used to support the top of a square sail. The yard can pivot (be braced) around the mast. At rest (braced square) the yard runs athwartships. Each yard takes its name from the section of mast that supports it, and the sails take their names from the yards.

Yardarm - That part of yard that lies between the lift and the outboard end of the yard.

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Yawl - A two masted sailboat with the shorter mizzen mast placed aft of the rudder post. A ketch is similar, but the mizzen mast is forward of the rudder post.

Yawl Boat - Smaller powered boat used to provide steerage-way when not under sail.

Yellow Jack - Slang name for the Q Flag. Also an old term for yellow fever.

Z

Zincs - Sacrificial anodes placed on a vessel to prevent electrolysis of vital metal parts.