Notes extracted from

"The Norfolk Wherry"

by G. Colman Green M.R.S.T.

WHERRY NOT A RIG, BUT A TYPE. ACTUAL RIG "UNA" OR CAT-RIGGED.

The Norfolk wherry was a clench or clinker built vessel of anything from twelve to eighty tons burden.

The sharp sterned vessel is usually associated with the River Yare, but the North River type was generally built with a transom stern. This varied however with the individual builder.

The hull is extraordinarily graceful, with hollow entrance and graceful sheer, broad of beam but streamlined at the watermarks. It was a comparatively dry vessel compared with, say, a Thames Barge, and it was possibly the finest expression of a vessel ever evolved for exposed estuaries and open marshland waterways. There were no bulwarks, but covering board about six inches wide was painted white to enable crew to see the edge of the deck in marsh fogs.

Plankways about 12" to 18" wide ran right round wherry for communicating with both ends of ship, and when becalmed they were used on one or both sides for quanting.

A quadrant on each side of the hull right for'ard is painted white. These are the "eyes" and are traditional - derived from ancient usage as far back as the Egyptian civilisation of the XX Dynasty, when seamen believed that their craft, built from the living tree, were likewise endowed with life and had sense enough to keep clear of rocks and the like.

The hood or cabin top dips from stern to mast. This slope for'ard is often seen in Dutch vessels, and it facilitates the handling of the ship meeting head winds and also increases the speed. The hood is made up of a series of hatches with curved backs, each built to fit notches in the combings, They are entirely unsupported by beams except at either end, and they cover the hold completely. The midship section may be from 10 to 14 feet across, and each section is numbered with

incised Roman figures up to XXII in the case of large wherries. Owing to the graduated form of the hold, the hatches were not interchangeable. The top of the hold was painted with three coats of red lead and varnished.

The combings increased the capacity of the hold. They were built above the plankways on either side of the vessel, and at the stern they formed a fairly capacious deck house for crew to live in. There was a dead-eye or unglazed window (with sliding shutter) to act as ventilator on either side of cabin, otherwise there were no openings in the combings of a trading wherry for lighting the interior. There is a theory that the term "combings" is a relic of ancient barley-carrying days when barley was reckoned (and still is) by the "comb".

In many Norfolk wherries the combings are of composite build to expedite loading. The upper parts (usually painted white) being removable. They were strengthened at the intersections with iron plates spaced about 5 feet apart and provided with iron rings for securing tarpaulins.

On the fo'c'stle the head of the cutwater projects above the deck and is fitted with two sheaveless blocks, the lower possessing a cleat (wooden) to secure the tackle which makes taut the forestay, which is of steel wire.

There are also two of the ship's timbers projecting about six inches above the deck line. These are shaped and fitted with a cross bar on which the bow and spring ropes are secured for mooring.

The curlingway is the name for the deck hatch covering to the fore (castle) hold. When in harbour this hatch can be clamped with cross bars and secured by padlocks. When the curlingway is removed and the forestay slackened, the mast, which is evenly balanced, can be easily lowered.

The keel was usually a stout oaken beam bolted to the keelson by $\frac{3}{4}$ inch bolts with square heads, and tapered towards stem and stern posts. In the case of the Yare class of wherry, the keel was a permanent part of construction, enabling the vessel

to sail very close to the wind.

Several smaller vessels especially built to run up as far as Antingham Ponds (River Ant) or Bungay in the Waveney Valley were fitted with slip keels owing to the shallowness of the upper reaches in dry summers. On arrival at Beccles the wherry would be made fast to the quay and the crew would unscrew the bolt heads from inside the boat, hammer the bolts through the keelson and the slip keel would be released, to float to the surface. The voyage upstream was then made without grounding. The slip keel was picked up on the way downstream, but shipping it was a very much more difficult job. The keel had to be worked into position with ropes or chains so that the bolts would again find their proper housing.

Keel irons at either end gave extra rigidity. They were submerged brackets or shoes.

The rudder was a massive structure 6 or 7 feet in length, regulated with a curved and tapering tiller which acted as a powerful lever. It is a saying that "the Norfolk wherry sailed on its rudder". Secured to stern post with iron straps which work on strong pintles.

The box pump of a wherry was about 7 feet in length, the type dating back to the 13th century, and possibly being the oldest type of pump known. Inserted into the well (a small sump at the foot of the mast) into which all drainage was collected, the apparatus stood in a vertical position and was worked by a swipe or lever by a man on deck. Bilge water poured into the plankways and spilled through small vents over the bin iron (or rubbing iron) which encircled the whole ship.

To get into the mens' cabin, it is first necessary to get into the well, then down one or two steps onto the sole or floor. The cabin was about 8 feet 6 inches across at the door, but about 12 feet at for'ard end where a permanent bulkhead separated the cabin from the hold. Height of the cabin was about 6 feet and length 8 or 9 feet. The economy of space was remarkable. The berths tapered slightly, but the average

width was about 3 feet. These berths took up most of the space. At the for'ard end there was room for a 36 inch cooking stove (coal fired), which provided for cooking and heating. There were built-in shelves and cupboards and two dead-eyes or lookouts provided with sliding shutters and which gave light and ventilation to the cabin. Some wherries had sliding scuttles to their cabins which, in addition to the doors, gave much more convenience.

Just above the cockpit a stout iron horse or traveller was fixed to the hood of the cabin in the most convenient position for handling sail. The main sheet block is hooked to this iron bar and slides or travels along it according to direction of the wind. This block works in conjunction with a similar double block, through both of which the main sheet travels over sheaves. There may be 40 or 50 feet of this main sheet. The higher of these two heavy blocks is coupled to the clew of the mainsail by a U-shaped bolt and screw.

Wooden cleats were fixed on each side of the cabin door on which to belay the main sheet.

The tabernacle was built into main beam and was stoutly braced. It secured the mast against side strains, so that the mast could stand in the strongest breeze without sidestays.

It is of course true that there was a forestay, but the purpose of that was mainly to counter the weight of the enormous gaff, steady the mast above the herring holes and lock the mast when in erect position by securing tackle in the lower sheaves.

The mast was a 40 foot piece of Oregon pine cut from a 12 inch baulk, so perfectly fitted and balanced in its tabernacle that with the forestay slackened and the curlingway cleared, a child could lower it.

The gaff was a tapered spar of about 33 feet in length with the jaws spliced. The gape of the jaws was graduated in such a way that the gaff slid easily up the mast which was occasionally grased to facilitate this. The splice at the jaws was

generally encased in a copper sheath. At the peak end, which was generally bevelled off on the underside so as not to chafe the cabin top when lowered, there was a chock pierced with a thole to accommodate the vang.

The vang was a line or halyard free at the deck end with which the gaff could be hauled inboard when lowering sail. It was also operated in strong winds where the winding course of the river necessitated frequent gibes. Used effectively, it reduced the tendency to plunge to leeward and so took some of the strain off the helm. The gaff was usually painted white or blue with red jaws and peak.

The method of hoisting the sail was by the winch, worked by one or two crank handles on a wheel and ratchet principle.

A parline or throat halyard, on which 5 parrels or wooden balls were reeved, held the gaff jaws close to the mast when it was being hoisted.

The mainsail was a vast piece of canvas composed of 12 or more diagonally cut lengths or cloths 12 inches wide, and might have contained 1,000 square feet of canvas. It was braced to the mast by hoops called "rungs" which were of ash, willow or even iron. They were sometimes used for climbing purposes if the rigging became fouled. These hoops were usually painted red.

The head of the sail was laced to the gaff by overhand lashings, while the foot was provided with thimbles for attaching an extra lower course, known as the bonnet. The after leech with the bonnet, may be as much as 50 feet on craft of large tonnage, and edges were bound with half inch rope.

The bonnet was customarily laced to the foot of the course when winds were light, thereby adding 150 or 200 additional square feet of canvas. Sails of the old trading wherries were originally tanned by boiling in herring oil with red lead, a few being tarred. There were two or even three rows or reef points arranged horizontally at the intersections of the cloths, and at the end of each line of reefs was a cringle for stropping purposes.

The halyards on a wherry were remarkable and were quite unlike anything used for hoisting yards or sails on other sailing vessels where the crew usually hoisted the throat of sail first and then took a purchase on the peak halyards. The wherry gaff carrying its great sail was hoisted by the winchman who "cranked up" at the foot of the mast and wound the rope automatically round the winch barrel. This single hoisting rope (1 inch manilla) travelled upwards to the herring hole, over a sheave in the mast, down to the gaff to pick up the throat block, up again to the mast head block, then back to the outer peak block where the "lift" was distributed to "span" wires and a martingale chain.
Thus the whole 1,000 square feet of canvas was hoisted peaked and set in one simple operation.
The main bulkhead lay across the hold abaft the tabernacle cheeks on which it rested. It was a removable partition, the chief purpose of which was to stop the cargo shifting for'ard. The 8 or 10 boards composing this bulkhead were shaped to suit the curvature of the hold and were housed at either side of the ship in brackets of stout wood. This bulkhead was not a watertight structure, the cargo being otherwise protected by the floor and the hood.
There was a tiny hatch under the tiller which was convenient for the stowage of buckets and mops.
The quants were long poles of spruce, 20 feet or so in length, with a cap or shoulder piece for wherryman's shoulder to push (hence a shoulder breeze) and at the lower end a shaped foot with a spike to stick into the river mud or bank.
"Casting" a quant effectively was only gained by long experience - it could lever the user overboard if not employed correctly.
A wherry might attain 7 knots in a good breeze and would take a lot of stopping. On the order "stand by to lower", the mate would run along the plankway on the windward side, adjust the winch handles, "ease the peak" of the sail and gradually

lower the huge sail to the hatches. This would reduce the speed. He would then use the quant as a boathook.

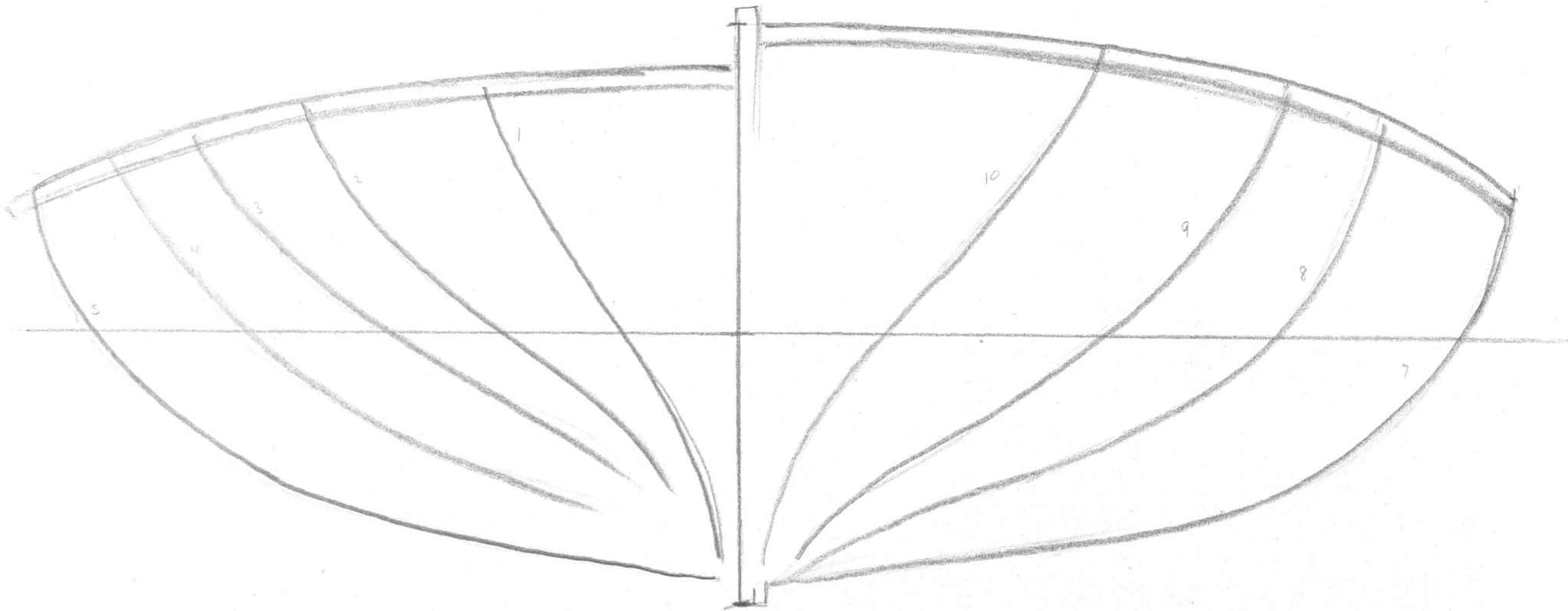
If a bridge had to be passed through, it would be necessary to lower the mast altogether which entailed freeing the forestay, unfastening the curlingway and standing by for order to lower. Shooting bridges was a risky occupation, sometimes damaging the vessels, not to say thr bridges. It could be dangerous, and at the least exciting in a breeze.

The cargoes were varied and a long list of commercial articles were conveyed in sailing wherries to all parts of the Broadland areas of Norfolk and Suffolk.

Wherries held their own well against competition of the railways, and it was not until the coming of the motor van on the reclaimed roads of Broadland that they declined in numbers.

In 1953, the "Norfolk Wherry Trust" was formed to keep the tradition going by means of one large sailing wherry completely renovated in the old style, and carrying sugar beet from Norwich to the factory at Cantley on the River Yare and returning with wood and so on.

The cost of building a wherry depended on its size, but in the 80's it was generally accepted that a large boat, well equipped, would cost about £800, which represents an outlay of £2,000 or more in these days.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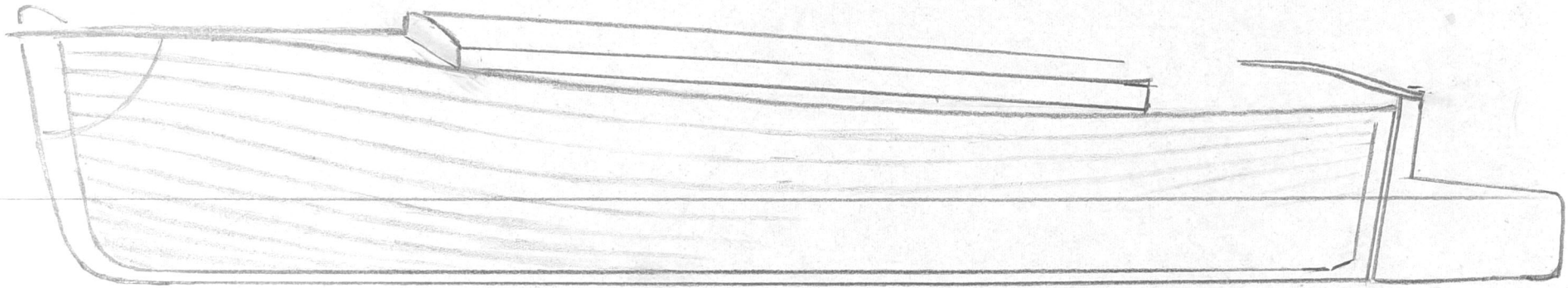
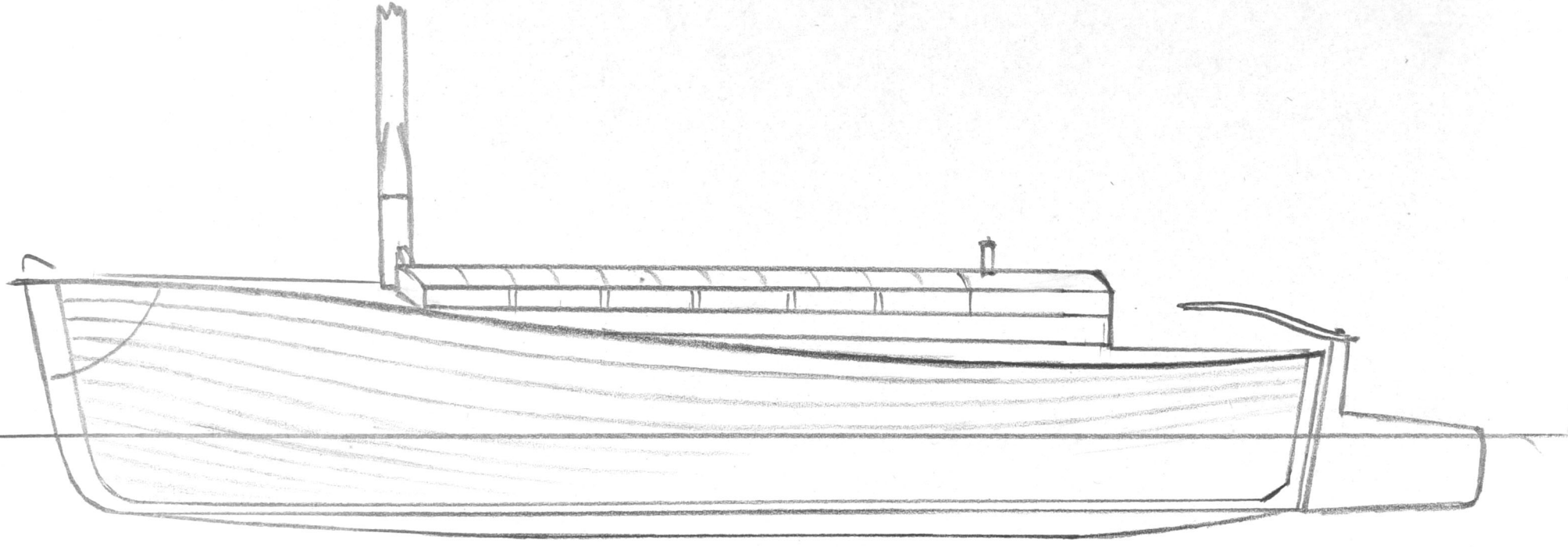
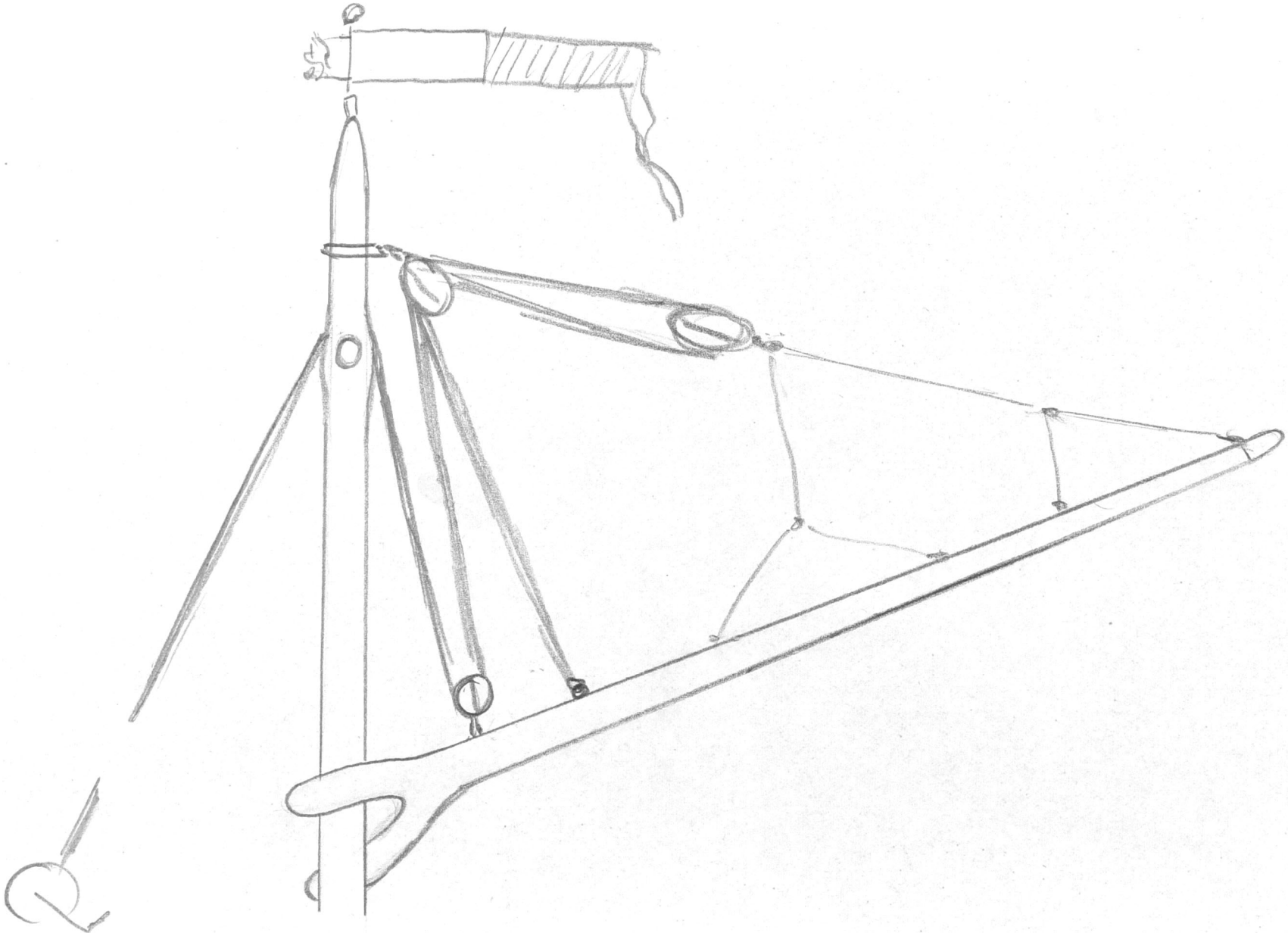






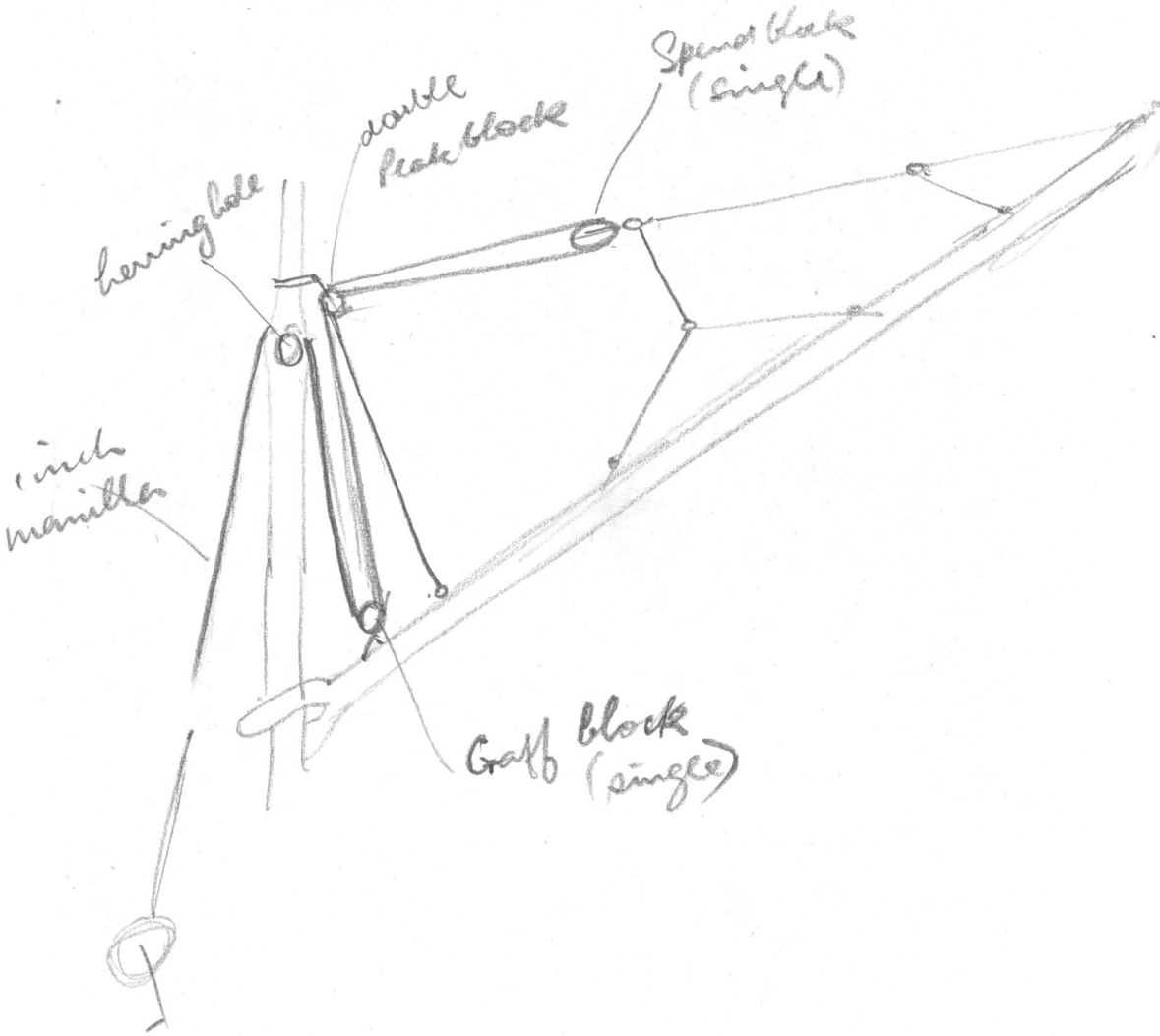
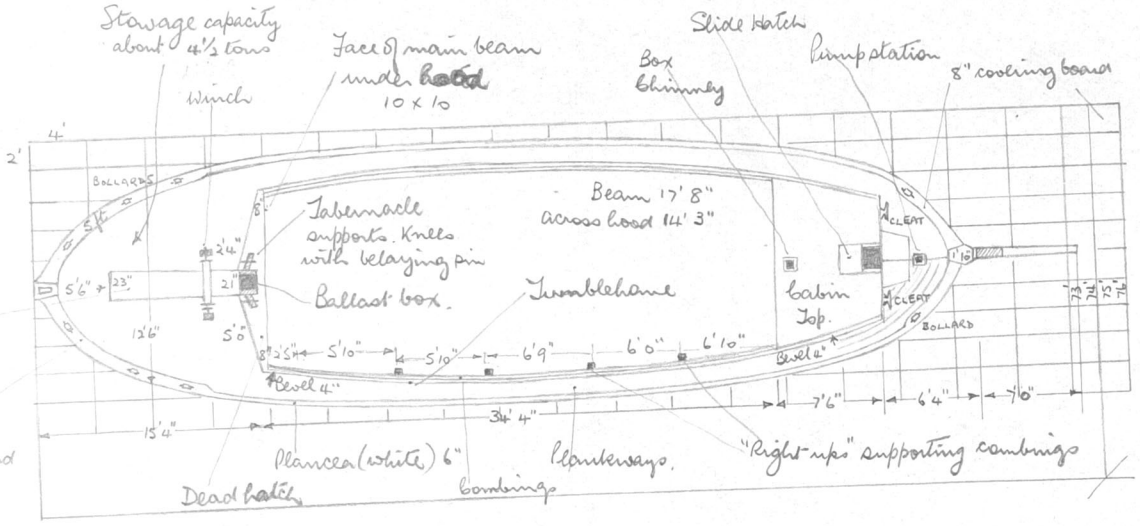

Spencer block
(single)
double
peak block
herring bone
inch
mainsail
Gaff block
(single)

FIG. 19.



Capacity of hold about 50 tons plus.

On each side -
Eleven planks
Eleven by 1½" tapering to 5" each end.

Rudder 7'6"
Tiller 7'6"

Wherry "Wonder"

63 ft x 17 ft 9 ins (70 ft overall)
50 tons

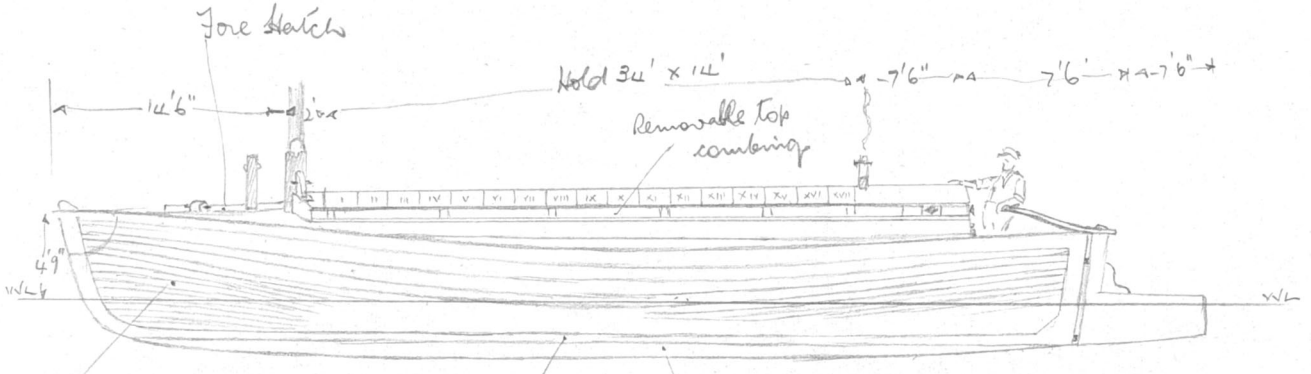
Built by B. Beans of Acle.

owned by Dilly Smith of Rumham or Stalham.

Bollards take two bow ropes and one spring rope.

Knees support main beam under hood.

Note - Hobrough's list gives 80 tons
C.H.M. Displacement might be 50.

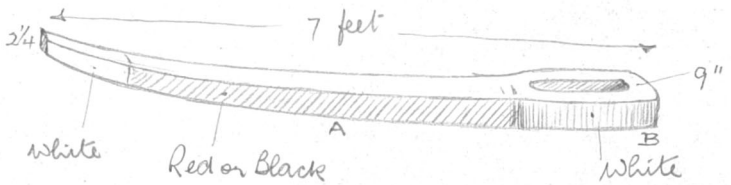


Length 65'
beam 16'

A wherry of about 32 Tons.

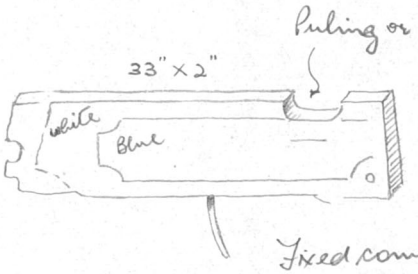
FIG. 20.

FIG 16.



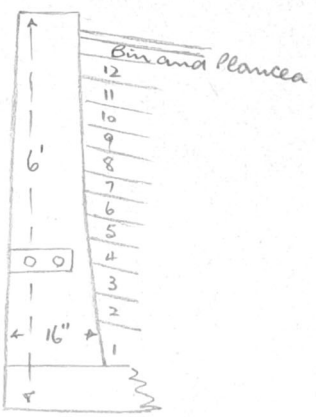
Tiller of a Norfolk wherry.
Tapering from 9" to 2¼". Depth between
A and B. 5".

FIG. 17



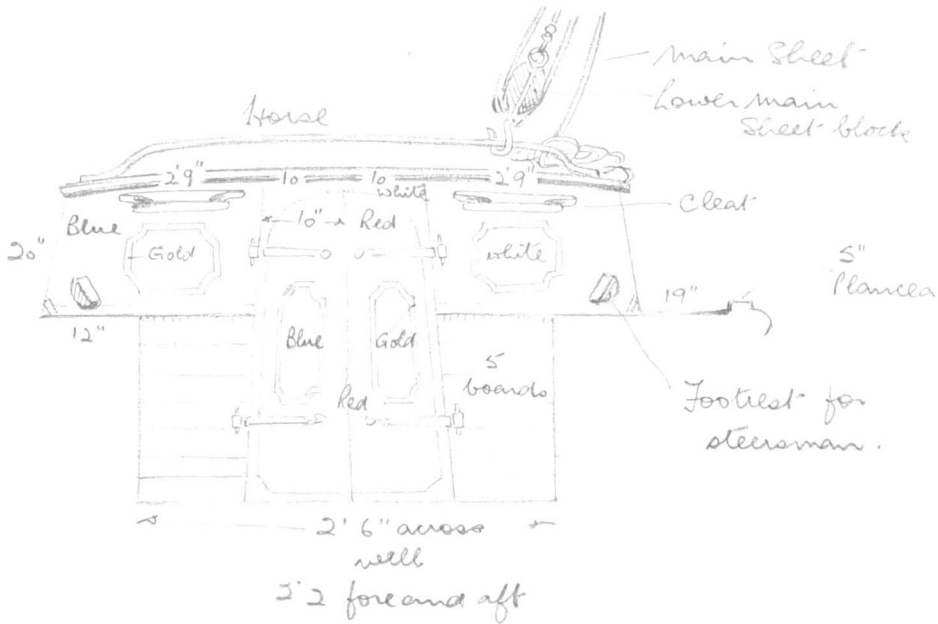
Fixed combing from
under dead hatch (part) of wherry "mand"

FIG. 18.



Stempost and Keel.

FIG 14



Section across steering well and cabin doors, wherry "Elsie"

FIG. 15.

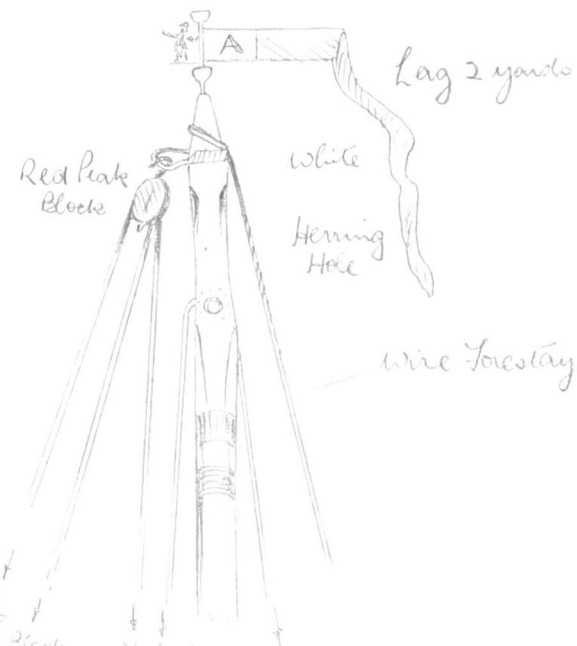
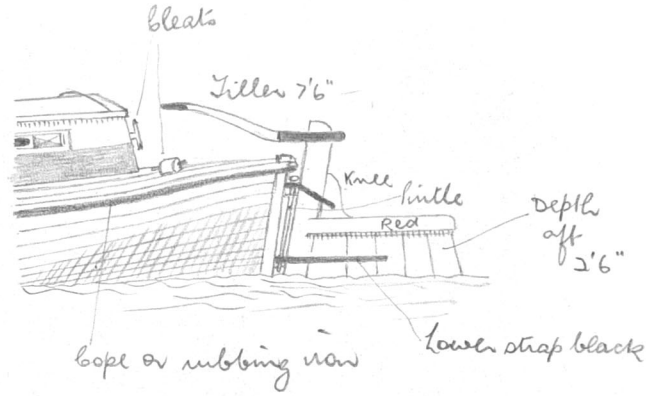


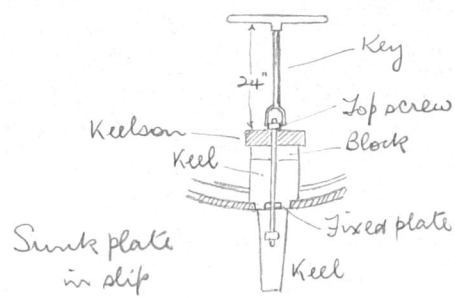
FIG. 11.



Rudders varied 5'6" to 7'6"

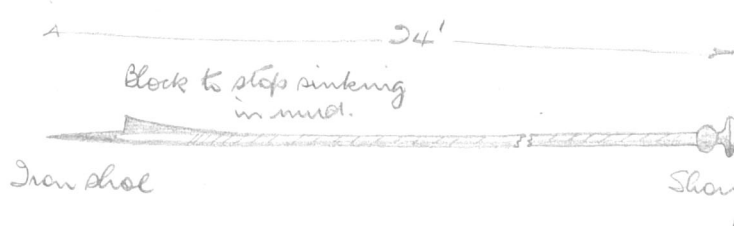
Rudder of "John and Henry."

FIG. 12



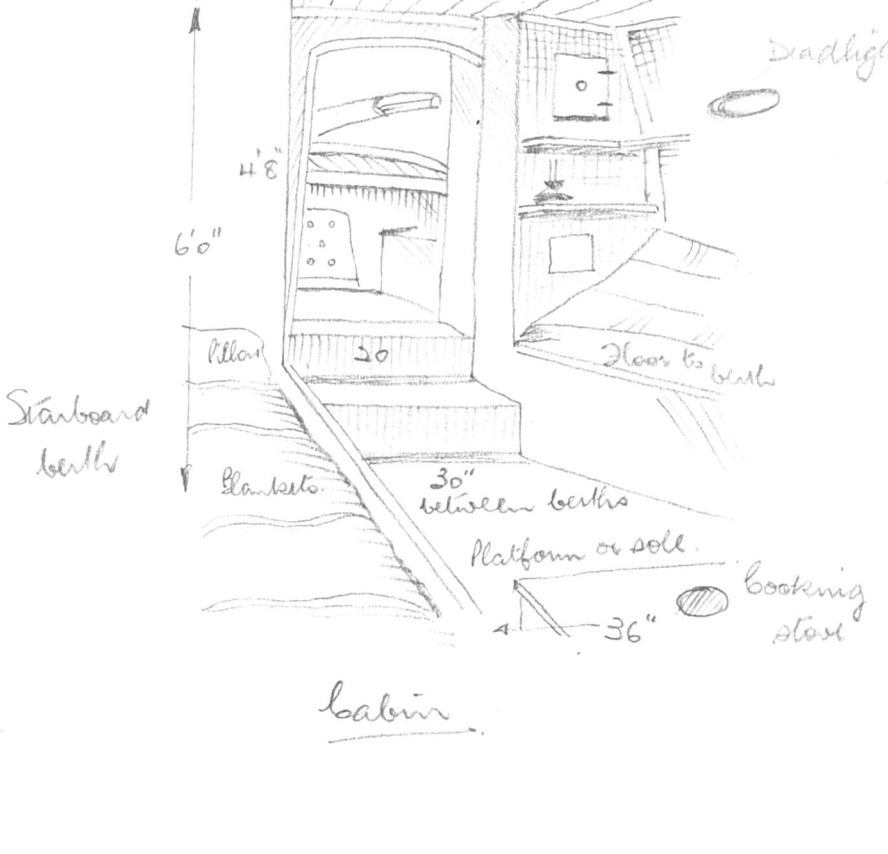
Slip keel section

FIG. 13



Average sized quant-

FIG. 9


Cabin roof
Daylight
4'8"
6'0"
Pillar
36
Floor to berths
Starboard berths
Blankets
30" between berths
Platform or sole
4
36"
Booking clerk

Cabin

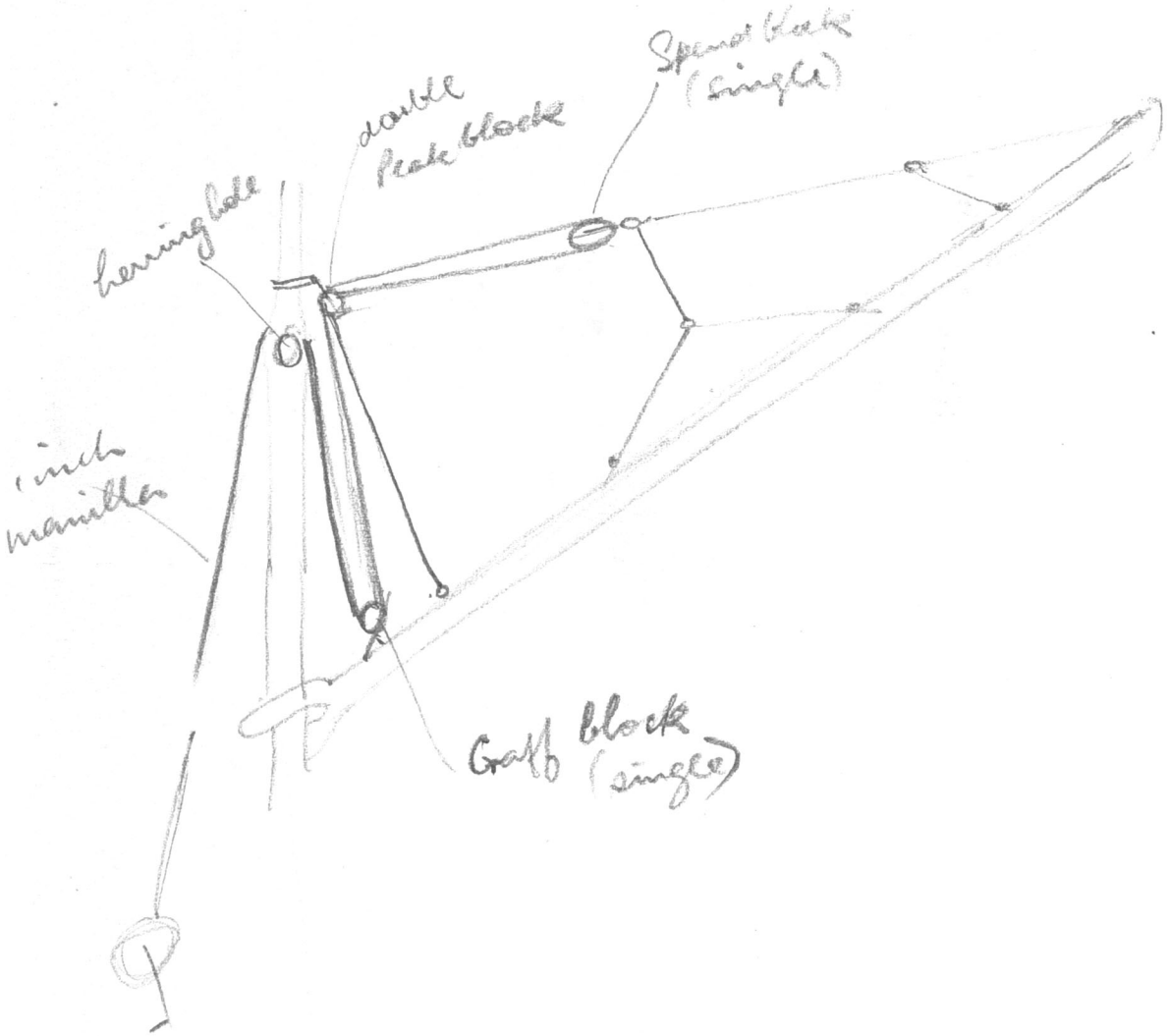
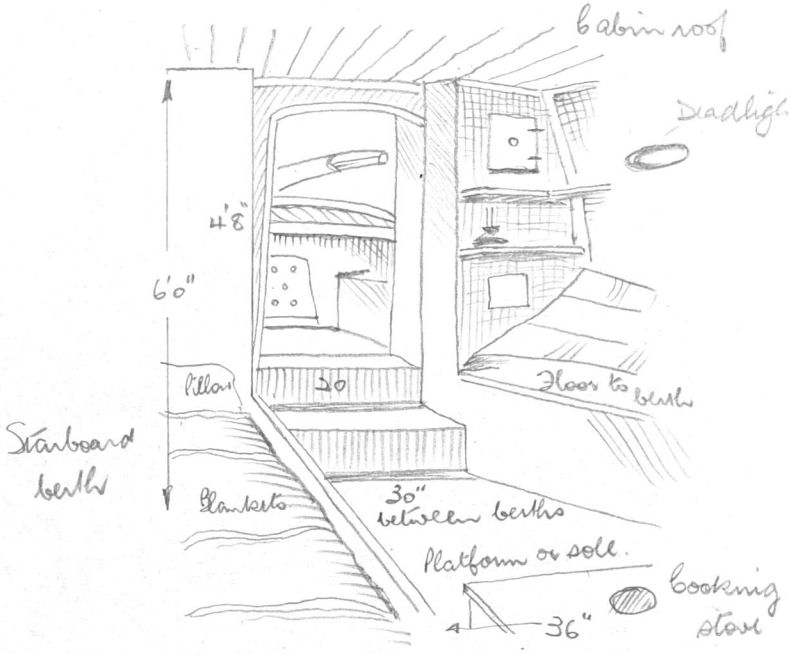
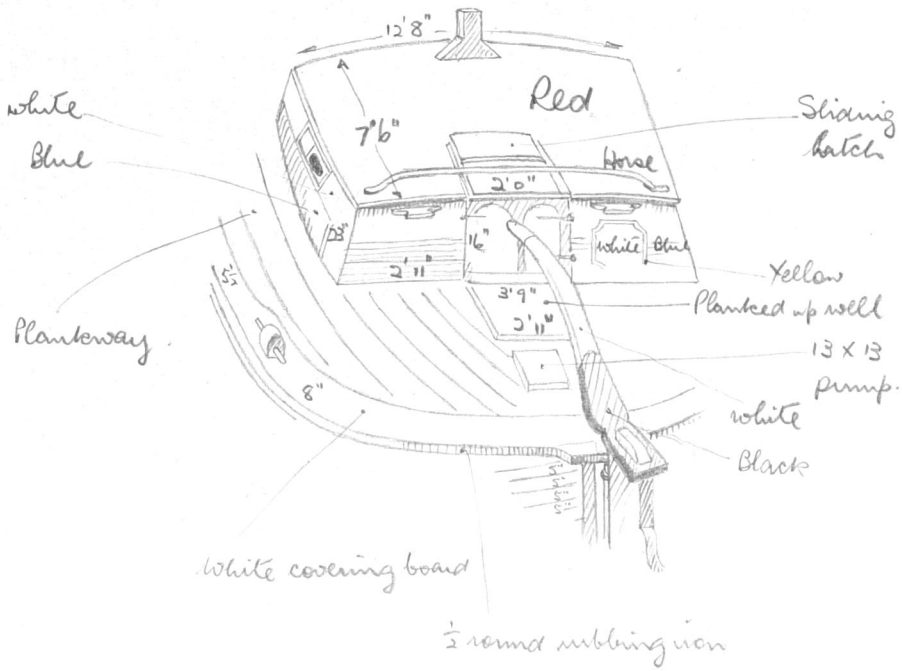

double
Peak block
Spencer block
(single)
herring bone
inch
mainsail
Gaff block
(single)

FIG. 9



Cabin

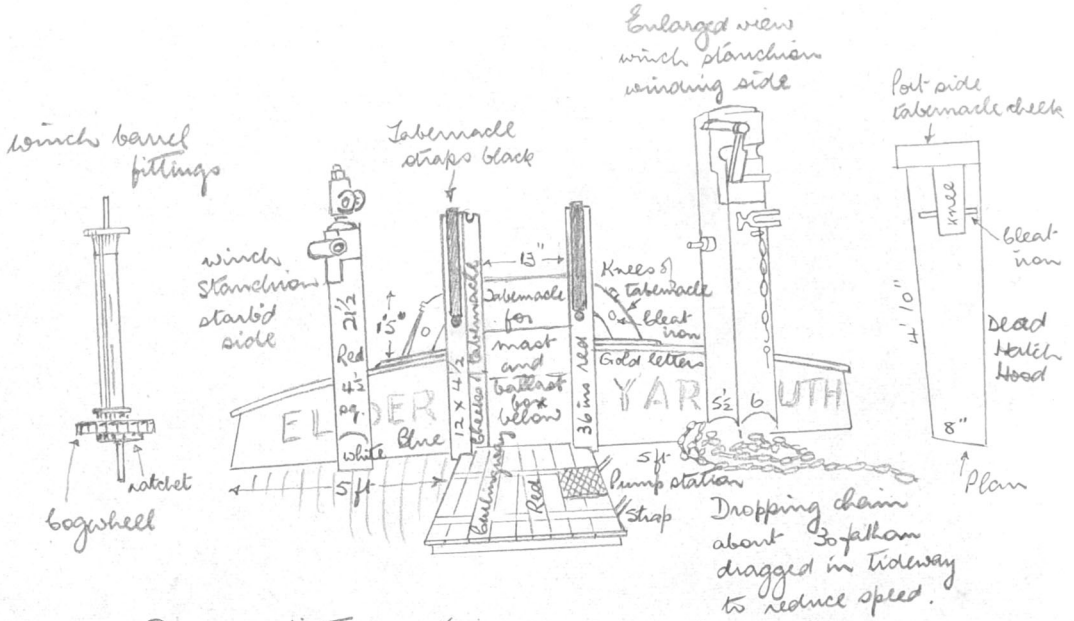
FIG. 10



Stern sheets of "The Wonder"

Some large wherries had flush poop decks

FIG. 7



Fo'c'stle fittings (not to any scale)

FIG. 8.

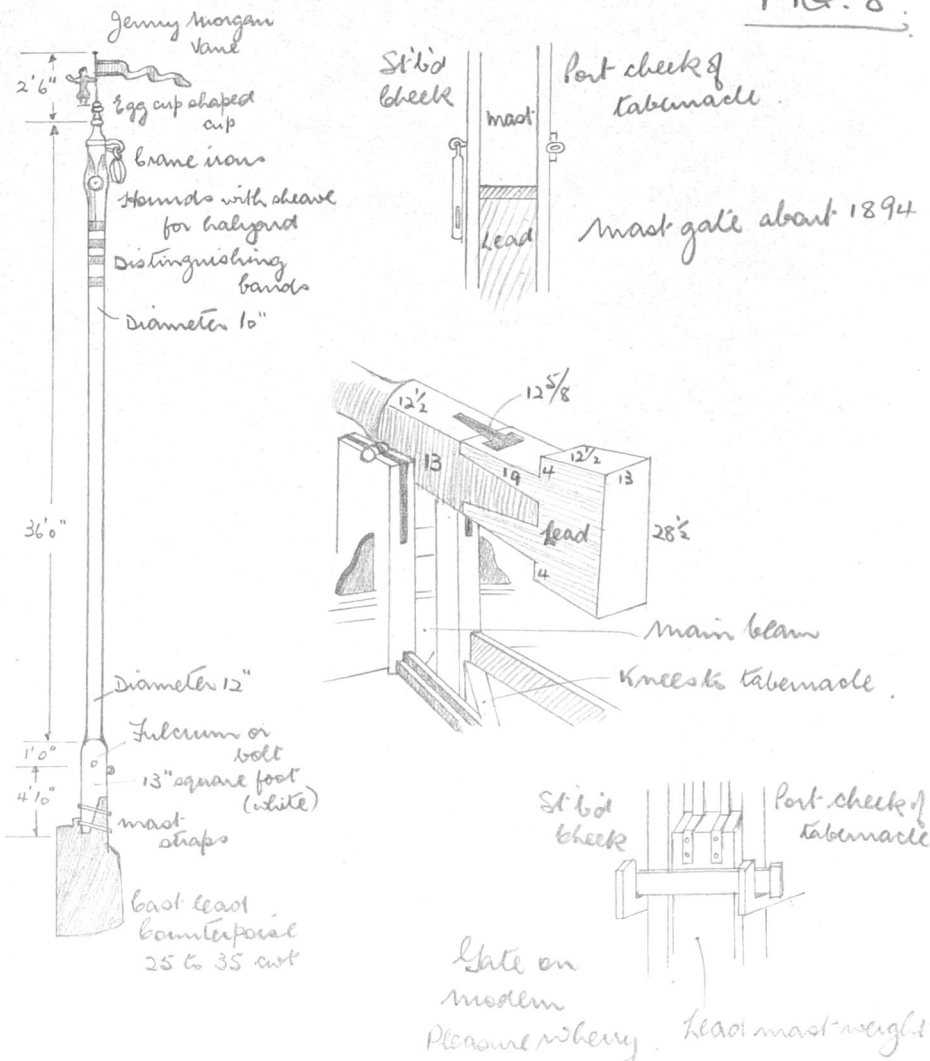
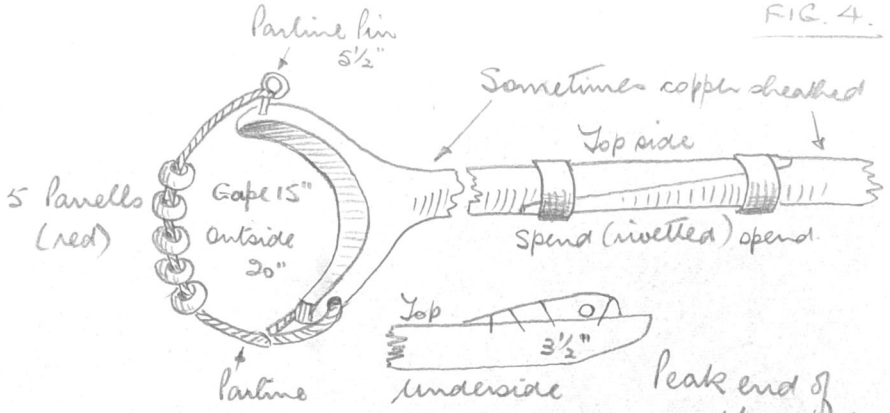


FIG. 4.



Peak end of gaff 35 feet with sang hole.

Gaff jaws and parrells "Surprise" 40 tons

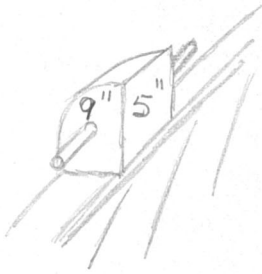
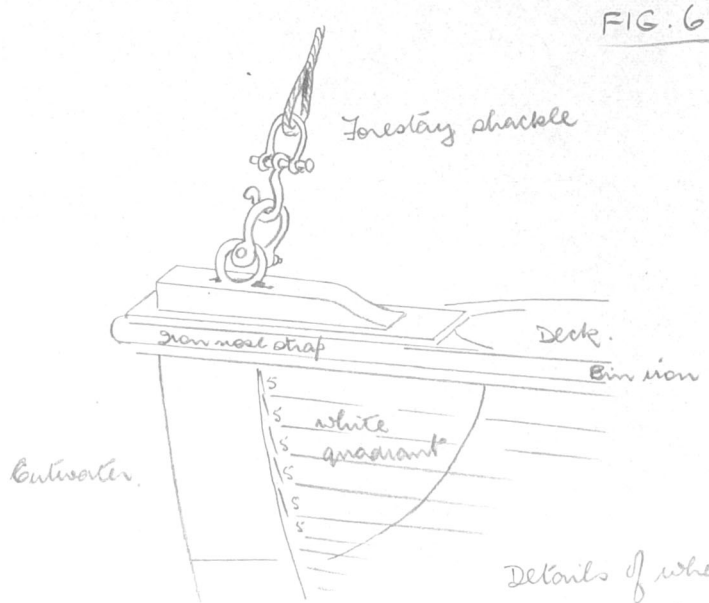


FIG. 5

Jenny Morgan.

FIG. 6.



Details of wherry "Gipsy".

FIG. 1.

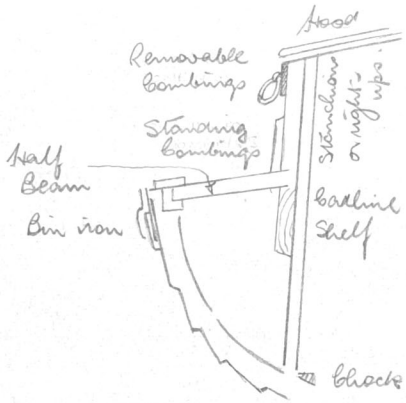
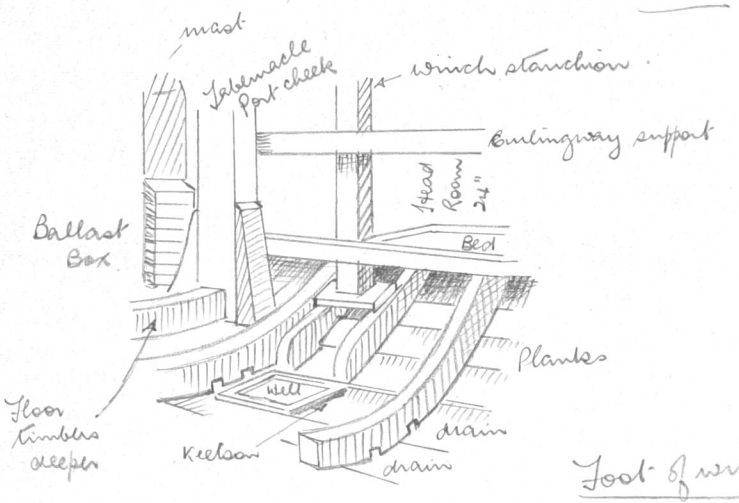


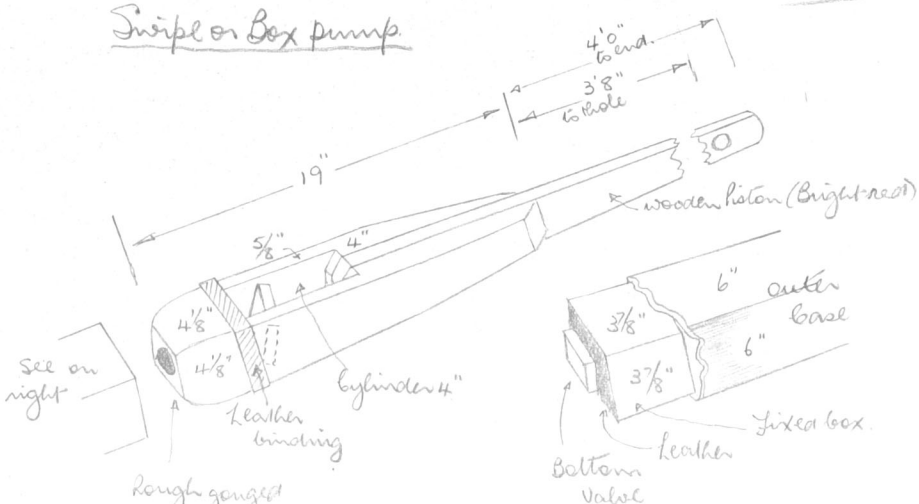
FIG. 2.



Foot of winch

FIG. 3

Swipe or Box pump



Complete length of this pump for small wherry 6feet.

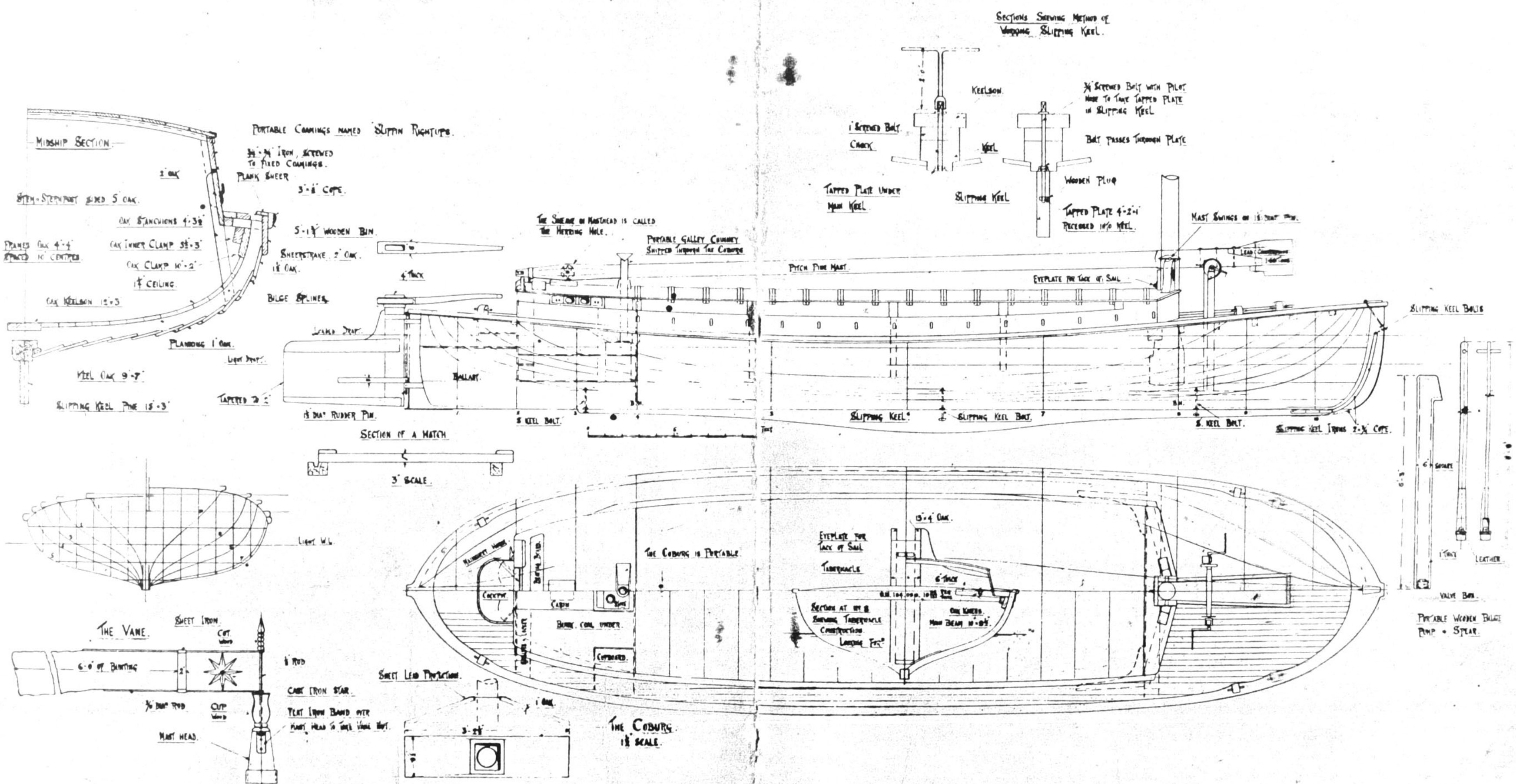
Colouring

Hull	Black with white "eyes" - traditionally
Covering board and plancea	White
Hatch covers and top of cabin	Red
Combings (upper part)	White or chequered
Combings (lower part)	Blue
Fore part of hold	Blue, name in gold letters
Aft side of cabin	Blue, gold, red, white, yellow and green
Curlingway	Red
Rudder	Red
Tiller	White and red or black
Cheeks of tabernacle	Red
Mast	Varnished to hounds, then distinguishing bands, white above, white foot
Mast hoops	Red
Gaff	White or blue with red jaws and peak
Sails	Red, black or white
Blocks	Red
Parrells	Red

THE NORFOLK WHERRY "GLEANER"

57′ 0″ × 14′ 0″ × 4′ 0″ Mld.

Scales: Lines $\frac{1}{8}'' = 1'\ 0''$
Midship Section $\frac{1}{4}'' = 1'\ 0''$
Vane, Slipping Keel } $\frac{3}{8}'' = 1'\ 0''$



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