

# Catalogue of the Navigating Instruments in the Collection of the New Bedford Whaling Museum

## Explanation

The format of the 161 descriptions in this catalogue (including one object without a number that is identified by 'No number ?') is based on my *Sextants at Greenwich* (for full book titles of publications see the bibliography at the end of this catalogue). As far as practical, the sequence in which the categories have been placed is similar to Brewington's *The Peabody Museum Collection* of 1963, and within those categories it is chronological.

### Not found

An additional 26 objects that were not found are listed at the end. Where possible I have linked them to objects in the catalogue, indicating the link [underlined](#).

### Identification

After the object number, the type-name for the instrument (for example, backstaff, or liquid compass) is given. In some cases a second name is given such as 'Davis quadrant' or 'Cherub log'. The difference between an octant, sextant and quintant has been defined according to the actual range of measurement, rather than by the maximum range of the graduation. There are, for example, instruments of which the scale runs to 125 degrees, suggesting it is a sextant, but which cannot be used to measure an angle over 100 degrees because of the manner in which it was constructed. Such a limitation is indicated as, for example, 'measuring to 86°'. Following this principle, an octant is defined as measuring angles up to 105 degrees, a sextant as measuring between 106 and 135 degrees, and a quintant between 136 and 150 degrees.

### Origin, maker and date

The town and country (state) of origin of the maker and his or her name (if known) are given; or otherwise as 'unknown'. 'Possibly' is added when a relevant trade label is present, when initials on the instrument suggest this name and when the name may be that of a retailer or an owner rather than a maker. 'Probably' is added when for example documentary evidence (recorded under 'literature') makes it likely that this person made the unsigned instrument. A first name between () means that the instrument was probably made by this person rather than, for example, by a son or a brother. The name of the maker is spelled according to modern reference works like Clifton, *Directory* and Brewington, *The Peabody Museum Collection*. If no such reference is known the spelling found on the instrument is followed. Dating is by the year found on the object, by documentary evidence as recorded under 'literature', or by the object's provenance. If none of these were available, the object is dated on the basis of its appearance when compared to similar instruments in other collections, or on its technology.

### Inscriptions

These are the inscriptions found on the instrument, whereby a distinction is made between 'signed' and 'marked'. The former includes the name or initials of the maker and his address or town as found on the instrument. 'Marked' includes other inscriptions on the object, such as an owner's name, numbers, patents, trademarks, etc. Inscriptions or marks found on boxes or cases are recorded with the 'description', below.

### Graduation

For all instruments with a graduation, the entire range of the scale is given in degrees and minutes of arc, and the material of which the scale was made. The transversal scale on

backstaffs is read along the fiducial edge at the centre of the sighting vane, and on octants it is read by the fiducial edge at the end of the index arm. The division of verniers is given in minutes (or seconds) of arc. The material of which the scale and vernier are made is given and the location of the zero of the vernier is recorded (to the right, left, or at the centre), as this can be an indication of the object's date.

### **Dimensions**

Dimensions are given in millimetres. For the backstaffs the radii of the 30- and the 60-degree arcs is given, and also the overall length of the object. For the octants, sextants, quintants the radius is measured from the pivot to the graduated scale, which is usually a little less than the radius of the frame. For octants, sextants, etc., the radius is also given in inches, because that is how British instrument makers listed them (for example a '9½ inch octant'). The size of telescopes and sectors is the closed length in millimetres. For all other instruments the largest size is given, its radius or diameter, or for example height by length by width.

### **Description**

This includes the main materials of which the object's body or frame is made, while with sextants and quintants the frame pattern is also named, as described and illustrated in *Sextants at Greenwich*. The description includes details on the clamping and tangent screw; the adjustment of the glasses, the number of shades and their colours, details on the magnifier for reading the vernier, and the sight vane or telescope bracket. The number and type of telescopes (upright or inverted image, cross-wires), sight-tubes and eyepieces is also given. Other detachable parts are listed; for example, a magnifying glass, an adjusting pin or key, and missing parts are reported. Details about the shape and material of the original box or case are given, including any labels or certificates, notes, previous ownership, dedications and inscriptions (for example on the lid).

### **Note**

Here, additional information is provided on the instrument, its use, invention or patent, on the manufacturer and on previous owners.

### **Literature**

The abbreviated titles of publications are listed; the full reference is found in the bibliography at the end of this document. Publications can refer to the specific instrument and its history, its date, invention, construction or use, and to previous ownership.

Bussum, Netherlands, 3 August, 2012

Willem F.J. Mörzer Bruyns

## **The Catalogue**

### **Quadrant**

**Obj. no.** 2001.100.3135

**Obj. name** Quadrant

**Origin** Probably United States

**Maker** Unknown

**Date** Twentieth century

**Inscriptions** None

**Graduation** Graduated along the arc from 0° to 90° by 1°.

**Dimensions** Radius 8" (203 mm).

**Provenance** KWM

**Description** A simple, crudely-made wooden open-frame quadrant without sights. It has been made out of one piece of wood; the plump bob is more recent, the digits have been scratched in rather than stamped. Perhaps this instrument was made and used for educational purposes in the NBWM, because it is comparable to quadrants used at sea before about 1600.

### Backstaffs

**Obj. no.** 2001.100.3136

**Obj. name** Backstaff | Davis quadrant

**Origin** Boston, Massachusetts

**Maker** Joseph Hals[e]y

**Date** 1738

**Inscriptions** Signed on the centre strut 'Made By Ioseph Halsey 1738 | For Bartlet Turner'

**Graduation** The transversal scale on the 30-degree arc is from 0° to 25° by 10', vice versa, and reads to 1' along the fiducial edge of the sight vane (missing). The graduation on the 60-degree arc is from 0° to 65° by 1°.

**Dimensions** Radius of the 30-degree arc is 202 mm and of the 60-degree arc 615 mm. Overall length of the instrument is 650 mm.

**Provenance** KWM

**Description** A maple frame and horizon vane with pear wood arcs and centre strut, with brass rivets. Decorative stamps, including fleurs-de-lis, are found on both arcs and on the centre strut.

**Note** The 'maker's mark' on the 30-degree arc mentioned in the NBWM file was not found.

**Literature** Warner, 'Davis' quadrants', 34; Brewington, *The Peabody Museum Collection*, 129.

**Obj. no.** 2001.100.3065

**Obj. name** Backstaff | Davis quadrant

**Origin** Probably England

**Maker** Unknown

**Date** About 1750

**Inscriptions** Marked on the back of the 60-degree arc '3'

**Graduation** The transversal scale on the 30-degree arc is from 0° to 25° by 15', vice versa, and reads to 1' along the fiducial edge of the sight vane (missing). The graduation on the 60-degree arc is from 0° to 65° by 1°, and on the outer edge has a scale for correcting for the Sun's semi-diameter.

**Dimensions** Radius of the 30-degree arc is 610 mm and of the 60-degree arc 194 mm. Overall length of the instrument is 635 mm.

**Provenance** KWM

**Description** A mahogany frame with pear wood arcs, with brass rivets; an inlaid ivory plate in the main strut. No vanes. Decorative stamped stars are found on both arcs.

**Note** The scale for correcting for the Sun's semi-diameter is almost exclusively found on English-made backstaffs.

**Literature** Mörzner Bruyns, *Sextants at Greenwich*, 19.

**Obj. no.** 2001.100.3036

**Obj. name** Backstaff | Davis quadrant

**Origin** Probably England

**Maker** Unknown

**Date** About 1750

**Inscriptions** Marked on the back of the 60-degree arc '3 [illegible]'

**Graduation** The transversal scale on the 30-degree arc is from 0° to 25° by 10', vice versa, and reads to 1' along the fiducial edge of the sight vane (missing). The graduation on the 60-degree arc is from 0° to 65° by 1', and on the outer edge has a scale for correcting for the Sun's semi-diameter.

**Dimensions** Radius of the 30-degree arc is 608 mm and of the 60-degree arc 190 mm. Overall length of the instrument is 640 mm.

**Provenance** KWM

**Description** A maple or mahogany frame with pear wood arcs, with brass rivets; an inlaid ivory plate in the main strut (possibly a replacement). No original vanes. Decorative stamps, including fleurs-de-lis and flowers, are found on the frame and on both arcs.

**Note** The scale for correcting for the Sun's semi-diameter is almost exclusively found on English-made backstaffs. This instrument has a replica sight vane, shadow vane and horizon vane.

**Literature** Mörzner Bruyns, *Sextants at Greenwich*, 19.

**Obj. no.** 2001.100.3035

**Obj. name** Backstaff | Davis quadrant

**Origin** Newport, Rhode Island

**Maker** Benjamin King

**Date** 1758

**Inscriptions** Signed on the centre strut 'Made By Benjamin King in | Newport Rhode Island 1758' ; Marked on the inlaid plate on the main strut 'For Cap<sup>t</sup> Ephraim Delano'

**Graduation** The transversal scale on the 30-degree arc is from 0° to 25° by 10', vice versa, and reads to 1' along the fiducial edge of the sight vane (missing). The back of the 30-degree arc has a table for latitude and departure for every ¼ point. The graduation on the 60-degree arc is from 0° to 65° by 1°.

**Dimensions** Radius of the 30-degree arc is 580 mm and of the 60-degree arc 173 mm. Overall length of the instrument is 613 mm.

**Provenance** KWM

**Description** An ebony frame with pear wood arcs and centre strut, with brass rivets; an inlaid ivory plate on the main strut. No original vanes. Decorative stamps, including fleurs-de-lis and stars, are found on both arcs and the centre strut.

**Note** With the scale for latitude and departure and knowledge of his course and sailed distance, a navigator could find his attained latitude. According to Warner this scale is found on most of King's backstaffs. This instrument has a replica sight vane, shadow vane and horizon vane. The owner may have been Captain Ephraim Delano who was born at Dartmouth, MA in 1733, and died at Fairhaven, MA in 1815.

**Literature** Warner, 'Davis' quadrants', 36-37; Brewington, *The Peabody Museum Collection*, 132.

**Obj. no.** 00.10

**Obj. name** Backstaff | Davis quadrant

**Origin** Newport, Rhode Island

**Maker** Benjamin King

**Date** 1785

**Inscriptions** Signed on the centre strut 'Made by Benjamin King for | M<sup>r</sup> Jabiel Hicks 1785'

**Graduation** The transversal scale on the 30-degree arc is from 0° to 25° by 10', vice versa, and reads to 1' along the fiducial edge of the sight vane (missing). The graduation on the 60-degree arc is from 0° to 65° by 1°.

**Dimensions** Radius of the 30-degree arc is 185 mm and of the 60-degree arc 580 mm. Overall length of the instrument is 630 mm.

**Provenance** Acquired from Lemuel D. Eldred (1848-1921).

**Description** A mahogany frame with pear wood arcs and centre strut, with brass rivets; pear wood horizon vane and a Flamsteed lens vane with a brass pressure plate for holding it tightly in place. This vane is broken, the Flamsteed lens is lost and has been replaced by a framed piece of plain glass. Decorative stamps, including fleurs-de-lis, are found on the handle and on the centre strut.

**Note** Lemuel Eldred from Fairhaven was a marine painter who worked with William Bradford. The shadow vane is a modern replacement. Benjamin King junior made this instrument the year before he died.

**Literature** Warner, 'Davis' quadrants', 36-38; Brewington, *The Peabody Museum Collection*, 132.

### Octants

**Obj. no.** 00.2

**Obj. name** Octant box

**Origin** Probably United States

**Maker** Unknown

**Date** About 1760

**Inscriptions** Marked on the lid 'John McGinley'

**Graduation** None

**Dimensions** Length by width by height 42 cm by 40 cm by 10 cm.

**Provenance** Unknown

**Description** Stepped painted oak keystone octant box. The upper part of the lid has a painted American eagle and shield with painted stars at the four corners. The lower part of the lid has one painted star and the name of John McGinley in paint.

**Note** Presumably John McGinley was an owner of this instrument box.

**Obj. no.** 2001.100.3122

**Obj. name** Octant

**Origin** Probably England

**Maker** Unknown

**Date** 1767

**Inscriptions** Marked on the plate on the crossbar 'Tho<sup>s</sup> Grinly . Ian<sup>ty</sup> 1. 1767'

**Graduation** Boxwood transversal scale from 0° to 90° by 20' vice versa (for zenith distance), measuring to 90°. The scale reads to 2' by the ivory-lined fiducial edge at the end of the index arm.

**Dimensions** Radius 17" (432 mm).

**Provenance** KWM

**Description** Mahogany frame and index arm, boxwood limb; brass fittings and a brass stop for the index arm. No tangent screw, the clamping screw is on the back of the index arm. The socket shades are missing. Index-glass adjustment by screw; adjustment of the horizon glasses by levers, wing nuts (both missing) and milled clamping screws (one missing). The sight vane has two pinholes and a swivelling shutter (missing); the back sight vane is missing. No box.

**Note** Presumably Thomas Grinly was an owner of this octant.

**Obj. no.** 2001.100.3772

**Obj. name** Octant

**Origin** Föhr, Schleswig-Holstein

**Maker** Cornelis Willemsz. Junior

**Date** About 1770

**Inscriptions** Signed on the brass plate on the crossbar ‘Cornelis Willemsz Junior | fecit a Föhr’

**Graduation** Surface-mounted brass transversal scale 90° to 0° by 1° for zenith distance, measuring to 90°. The scale can be read to 5' by a division on the fiducial edge at the end of the index arm.

**Dimensions** Radius 12¾" (324 mm).

**Provenance** KWM

**Description** Hornbeam frame and limb with a brass index arm and fittings; a brass stop for the index arm and an inlaid brass plate on the crossbar. No tangent screw, the clamping screw (missing) is on the back of the index arm. The index shades are missing, no horizon shades. Index-glass without adjustment; adjustment of the horizon glass by a screw, lever and a clamping screw. The sight vane is broken and missing. Engraved floral decorations are found on the entire index arm and flowers at the ends of the brass scale. No box.

**Note** The original Friesian name of Cornelis Willemsz. (1716-1790) was Nickels Wögens; he was a private teacher of navigation on the Frisian island of Föhr. Willemsz is his Dutch name; seamen from Föhr took on Dutch names when they sailed on Dutch whale ships, they bought their octants from manufacturers on their island. Three octants by Willemsz. are on record, none of them are dated.

**Literature** Mörzer Bruyns, ‘Octants from the Friesian Island of Föhr’, 415.

**Obj. no.** 2001.100.3062

**Obj. name** Octant

**Origin** Liverpool, England

**Maker** William Mann

**Date** About 1775

**Inscriptions** Signed on the index arm ‘W. Mann Liverpool’

**Graduation** Inlaid ivory scale from -5° to 95° by 20', measuring to 87° and vice versa for zenith distance. Ivory vernier to 1', zero at the centre.

**Dimensions** Radius 14" (355 mm).

**Provenance** KWM

**Description** Ebony frame and limb with brass index arm and fitting, a brass stop for the index arm; inlaid ivory plates on the crossbar and the back of the frame (missing). No tangent screw, the clamping screw (missing) is on the back of the index arm. Three socket shades (two red, one blue) secured by a thumb screw, no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glasses by levers, wing nuts and clamping screws (one screw missing). Sight vane with two pinholes and a swivelling shutter, the back sight vane has one pinhole. Capped pencil or screwdriver is missing from the crossbar. No box.

**Note** The zero remained at the centre of the vernier until the 1770s.

**Literature** Morrison-Low, *Making Scientific Instruments*, 331; Clifton, *Directory*, 177; Mörzer Bruyns, *Sextants at Greenwich*, 32.

**Obj. no.** 2001.100.9441

**Obj. name** Octant box

**Origin** Unknown

**Maker** Unknown

**Date** About 1780

**Inscriptions** Various illegible pencil notes and digits are found inside the box and the lid.

**Graduation** None

**Dimensions** Length by width by height 46 cm by 43 cm by 11 cm.

**Provenance** KWM

**Description** Wooden octant box painted grey-blue-green on the outside.

**Obj. no.** 1936.37

**Obj. name** Octant

**Origin** Probably England

**Maker** Unknown

**Date** About 1785

**Inscriptions** Marked on the inlaid plate on the crossbar 'For Cap<sup>t</sup>. Francis Anderson 1785'

**Graduation** Inlaid ivory scale from  $-5^{\circ}$  to  $95^{\circ}$  by  $20'$ , measuring to  $90^{\circ}$ . Ivory vernier to  $1'$ , zero at the centre.

**Provenance** Acquired in 1936 from Pauline A. and Philip William Richardson, previously owned by Evan J. Williams, who inherited it from Captain John Strange.

**Description** Rosewood or mahogany frame, limb and index arm, the lower part of the index arm is brass; a brass stop for the index arm, and inlaid ivory plates on the crossbar and the back of the frame. No tangent screw, the clamping screw is on the back of the index arm. Two socket shades (both red); no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glasses by levers, wing nuts and milled screws. The sight vane is missing, the back sight vane has one pinhole. A pencil or screwdriver is missing from the crossbar; all three feet are missing. No box.

**Note** The zero remained at the centre of the vernier until the 1770s, although like this one, examples are found until about 1785.

**Literature** Mörzner Bruyns, *Sextants at Greenwich*, 32, 126.

**Obj. no.** 2001.100.3005

**Obj. name** Octant

**Origin** Liverpool, England

**Maker** Peter Owens

**Date** 1797

**Inscriptions** Signed on the index arm 'Owens, Liverpool' ; Marked on the inlaid ivory plate 'Tho<sup>s</sup> Howland . 1797 .'

**Graduation** Inlaid ivory scale from  $-2^{\circ}$  to  $99^{\circ}$  by  $20'$ , measuring to  $91^{\circ}$ . Ivory vernier to  $1'$ , zero at the right.

**Dimensions** Radius  $13\frac{1}{2}''$  (342 mm).

**Provenance** KWM

**Description** Ebony frame and limb with brass index arm and fittings, a brass stop for the index arm; inlaid ivory plates on the crossbar and the back of the frame. The tangent screw is on the front of the index arm, the clamping screw is on the back. Three socket shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glasses by worm gear and milled screw, and by lever, wing nut and milled clamping screw. Sight vane with two pinholes and a swivelling shutter, the back sight vane has one pinhole. A capped pencil or screwdriver is missing from the crossbar. In a stepped wooden box painted black on the outside and red on the inside and containing in the lid a trade label for Richard Patten, 180 Water Street, New York (after 1813). Painted on the top of the lid, the initials 'J.H.'

**Note** According to the NBWM file this octant belonged to Captain Thomas Howland. The index glass is new, the original glass is in the box. Peter Owens worked between 1794 and 1803. Presumably Thomas Howland was the first owner of this instrument.

**Literature** Morrison-Low, *Making Scientific Instruments*, 332; Mörzer Bruyns, 'Trade Labels', 6-7.

**Obj. no.** 00.1.2

**Obj. name** Octant

**Origin** Liverpool, England

**Maker** William Holliwell

**Date** About 1810

**Inscriptions** Signed at the bottom of the index arm 'W Holliwell | Liverpool' ; Marked on the ivory plate on the crossbar ' . Williamz . Azhley . ' ; marked at the centre of the scale (at 48°) '[foul anchor]' stamp

**Graduation** Inlaid ivory scale from -2° to 99° by 20', measuring to 91°. Ivory vernier (broken) to 1', zero at the right.

**Dimensions** Radius 13½" (342 mm).

**Provenance** Acquired from Clement W. N. Swift, USN.

**Description** Rosewood frame and limb with a brass index arm and fittings; a brass stop for the index arm, and inlaid ivory plates on the crossbar and the back of the frame. No tangent screw, the clamping screw (a wing nut) is on the back of the index arm. Three socket shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glasses by levers, wing nuts and milled clamping screws. The sight vane has two pinholes and a swivelling shutter (missing). A capped pencil or screwdriver is missing from the crossbar. No box.

**Note** The foul anchor stamp indicates that the scale of the octant was divided with a circular dividing engine. William Holliwell worked from 1804 to 1832. Presumably Williams Ashley was an owner of this instrument.

**Literature** Morrison-Low, *Making Scientific Instruments*, 221, 329; Mörzer Bruyns, *Sextants at Greenwich*, 47; Clifton, *Directory*, 138-139.

**Obj. no.** 1972.28

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Rust

**Date** About 1810

**Inscriptions** Signed on the ivory plate on the crossbar ' . Spencer Browning & Rust . London . ' ; Stamped at the centre of the scale (at 47°) 'SBR'

**Graduation** Inlaid ivory scale from -2° to 99° by 20'. The ivory vernier is missing.

**Dimensions** Radius 11½" (293 mm).

**Provenance** Acquired in 1972 from Dr Randall Clifford.

**Description** Ebony frame and limb with brass index arm and fittings; a brass stop for the index arm, inlaid ivory plates on the crossbar and the back of the frame. No tangent screw, the clamping screw is on the back of the index arm. Three socket shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glasses by levers, wing nuts and milled clamping screws. Sight vane with two pinholes and a swivelling shutter. A pencil or screwdriver is missing from the crossbar. In a stepped, oak, keystone box, containing in the lid a trade label for Samuel Thaxter, 125 State Street, Boston (1796-1822).

**Note** According to the NBWM file this octant was owned by Captain George Randall, master of the New Bedford whale ships *George and Susan* (from 1817-1819), *Timolean* (in 1819), *George and Martha* (from 1823-1825), and *Hydaspe* (from 1826-1827).

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 4; American Offshore Whaling Voyages database.

**Obj. no.** 1946.18

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Rust

**Date** About 1810

**Inscriptions** Stamped at the centre of the scale (at 48°) 'SBR'

**Graduation** Inlaid ivory scale from -2° to 94° by 20', measuring to 90°. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 13½" (342 mm).

**Provenance** Acquired in 1946 from James F. Pierce.

**Description** Ebony frame and limb with brass index arm and fittings, a brass stop for the index arm; inlaid ivory plates on the crossbar and the back of the frame. The tangent screw is on the front of the index arm, the clamping screw is on the back. Three socket shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glasses by worm gear and milled clamping screw, and by lever, wing nut and milled clamping screw. Sight vane with two pinholes and a swivelling shutter, the back sight vane has one pinhole. Capped pencil or screwdriver is missing from the crossbar. No box.

**Note** According to the NBWM file this octant belonged to Captain Ansel Weeks (1799-1876), surveyor of the Fairhaven whale ship *Acushnet* (sailed 1841-1851). The artificial horizon in the NBWM collection by James Oatley in Sydney, Australia (No number) was also owned by him.

**Literature** Clifton, *Directory*, 261; American Offshore Whaling Voyages database.

**Obj. no.** 1983.45.9

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Rust

**Date** About 1810

**Inscriptions** Stamped at the centre of the scale (at 53°) 'SBR'

**Graduation** Inlaid ivory scale from -2° to 99° by 20', measuring to 90°. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 11½" (293 mm).

**Provenance** Acquired in 1983 from Mercator Cooper Kendrick, Southampton, NY.

**Description** Ebony frame and limb with brass index arm and fittings, a brass stop for the index arm; inlaid ivory plates on the crossbar (missing) and the back of the frame. The tangent screw is on the front of the index arm, the clamping screw is on the back. Three socket shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glasses by worm gear and milled clamping screw (missing, replaced by regular screw) and by lever, wing nut and milled clamping screw. Sight vane with two pinholes and a swivelling shutter, the back sight vane has one pinhole. Capped pencil or screwdriver is missing from the crossbar. No box.

**Note** In poor condition, with poor repairs.

**Literature** Clifton, *Directory*, 261.

**Obj. no.** 2000.8

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer and Co

**Date** About 1820

**Inscriptions** Signed on the ivory plate on the crossbar ‘Spencer & C<sup>c</sup> London’

**Graduation** Inlaid ivory scale from -2° to 107° by 20', measuring to 90°. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 10½" (266 mm).

**Provenance** Acquired in 2000 from Walter N. Rotchild.

**Description** Ebony frame and limb with a brass index arm and fittings; inlaid ivory plates on the crossbar and the back of the frame. The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), one horizon shade (green). Index-glass adjustment by screw; adjustment of the horizon glass by worm gear and milled clamping screw, and by a square-headed screw and a detached key (stuck). The sight vane has two pinholes and a swivelling shutter. A capped pencil or screw driver is missing from the crossbar. In a keystone box, painted dark green or black, containing in the bottom a trade label for John Kehew, 69 North Water Street and in the lid for John Kehew, 49 North Water Street, both in New Bedford (after 1839).

**Note** John Kehew (1818-1889) was first established at 69 and later at 49 North Water Street.

**Literature** Mörzner Bruyns, ‘Trade Labels’, 12; Clifton, *Directory*, 261.

**Obj. no.** 1905.13

**Obj. name** Octant

**Origin** Probably England

**Maker** Unknown

**Date** About 1820

**Inscriptions** None

**Graduation** The inlaid ivory scale is missing. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 10½" (266 mm).

**Provenance** Acquired in 1905 from Captain George O. Baker.

**Description** Ebony frame and limb with brass index arm and fittings; inlaid ivory plates on the crossbar and the back of the frame (both missing). The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by worm gear and milled clamping screw, and square-headed screw and detached key (missing). Sight vane with two pinholes and a swivelling shutter. In an oak keystone box with remnants of black paint on the outside, and containing in the lid a label with in MS ‘L677 | Quadrant | Loaned by Walter A Luce’.

**Note** A wreck, should be de-accessioned.

**Obj. no.** 1983.45.10

**Obj. name** Octant box and parts

**Origin** Possibly New York, New York

**Maker** Possibly Edmund and George William Blunt

**Date** After 1824

**Provenance** Acquired in 1983 from Mercator Cooper Kendrick, Southampton, NY..

**Description** Telescope (86 mm) erect image. Sight-tube (81 mm). In a wooden keystone box.

**Note** According to the NBWM file this box contained an octant or sextant by Edmund and George William Blunt of New York; this was not found. Also according to the file the octant belonged to Captain Mercator Cooper master of the *Phenix* (from 1832-1838), *American* (from 1840-1843), *Manhattan* (from 1843-1846), *Franklin* (from 1847-1850), and *Levant* (from 1851-1855), all from Sag Harbor, NY.

**Literature** Brewington, *The Peabody Museum Collection*, 120; American Offshore Whaling Voyages database.

**Obj. no.** 2001.100.4120

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer and Co

**Date** About 1830

**Inscriptions** Signed on the ivory plate on the crossbar ‘Spencer & C<sup>o</sup>. London’ ; Marked on the inlaid ivory plate on the back ‘Geo. Comer. | East Haddam’

**Graduation** Inlaid ivory scale from -4° to 107° by 20’, measuring to 89°. Ivory vernier to 1’, zero at the right.

**Dimensions** Radius 10½" (266 mm).

**Provenance** Acquired in 2001 from J. Scott Dunn.

**Description** Ebony frame and limb with brass index arm and fittings; inlaid ivory plates on the crossbar and the back of the frame. The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), no horizon shades. Index-glass adjustment by a screw; adjustment of the horizon glass by screw, and by worm gear and milled clamping screw. The sight vane has two pinholes and a swivelling shutter (the shutter is possibly a replacement). A capped pencil or screwdriver is missing from the crossbar. In a keystone box containing a label with in MS ‘Tho<sup>s</sup> Hull | Custom House, | Providence RI | 120 Wentworth Ave | Edgewood RI’ and in the lid a trade label for Daniel B. Hemsted, Bank Street, New London, and various pencil notes. The top of the lid has a crescent moon and a star both of inlaid ivory. The crossbar has been reinforced with a brass plate on the back.

**Note** Perhaps the first owner was Thomas Hull (1807-1876), mariner, and an influential packet captain and ship owner at Providence, RI. George Comer (1858-1937) was a famous American whaling captain from East Haddam, CT; he went to sea in 1875, and was master of the whale ships *Era* (from 1895-1906), *A.T. Gifford* (from 1907-1912), and *Finback* (in 1919). Daniel Booth Hemsted (1822-1901) was a jeweller and silversmith at New London; he probably cleaned the instrument at some stage.

**Literature** Clifton, *Directory*, 261; [www.ebooksread.com](http://www.ebooksread.com) ; [www.simonpoor.com](http://www.simonpoor.com) (Connecticut and the Sea 6); [www.wikipedia.org](http://www.wikipedia.org) ; American Offshore Whaling Voyages database.

**Obj. no.** 2001.100.3356

**Obj. name** Octant

**Origin** Probably England

**Maker** Unknown

**Date** About 1830

**Inscriptions** Marked on the ivory plate on the crossbar ‘John Kehew | Capt. F.A. Butts’

**Graduation** Inlaid ivory scale from -1° to 99° by 20’, measuring to 91°. Ivory vernier to 1’, zero at the right.

**Dimensions** Radius 13½" (342 mm).

**Provenance** KWM, purchased from Tesseract, Hastings-on-Hudson, NY.

**Description** Ebony frame and limb with brass index arm and fittings; inlaid ivory plates on the crossbar and the back of the frame. The tangent screw and clamping screw are on the back of the index arm. Three socket shades (two red, one green), no horizon shades. Index-glass (probably a replacement) adjustment by screw; adjustment of the horizon glass by screws, and by worm gear (its clamping screw has been replaced by a screw), and by lever, wing nut and milled clamping screw. The sight vane has two pinholes and a swivelling shutter. An ivory or bone capped pencil is fitted in the crossbar. In a stepped keystone box containing in the lid a

trade label for John Kehew, 69 North Water Street, New Bedford (after 1839). The box contains a non-silvered index glass.

**Note** It is very unlikely that John Kehew (1818-1889) made octants; he was the retailer of this example. Captain Francis A. Butts was master of the New Bedford whaling bark *Bramin* (from 1847-1851). The brass pressure plate of the clamping screw is missing, causing damage to the back of the limb.

**Literature** Mörzner Bruyns, 'Trade Labels', 12, 27; Brewington, *The Peabody Museum Collection*, 131; American Offshore Whaling Voyages database.

**Obj. no.** 2000.100.2805

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Barrett and Co

**Date** About 1830

**Inscriptions** Signed on the limb 'Spencer. Barrett & C<sup>o</sup> London.'

**Graduation** Polished brass limb with inlaid silver scale from -5° to 120° by 10', measuring to 102°. Silver vernier to 30", zero at the right.

**Dimensions** Radius 7" (177 mm).

**Provenance** KWM

**Description** Anodized brass plain-pattern frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four index shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by capstan screws and a square-headed screw and detached key. Threaded telescope bracket without adjustment. Magnifier on a 85 mm swivelling arm. Telescope (80 mm) erect image. Sight-tube (80 mm); shaded eyepiece (red); adjusting key; adjusting pin. In a mahogany keystone box containing in the lid a trade label of C.R. Sherman and Co, 49 North Water Street, New Bedford (after 1865, then in association with Wendell Macy).

**Note** Spencer, Barrett and Co are not recorded in Clifton, *Directory*, they were probably active during the first half of the nineteenth century.

**Literature** Mörzner Bruyns, 'Trade Labels', 12, 21; Brewington, *The Peabody Museum Collection*, 139.

**Obj. no.** 2006.57.17

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Barrett and Co

**Date** About 1830

**Inscriptions** Signed on the ivory plate on the crossbar 'Spencer . Barrett. & C<sup>o</sup>. | London'

**Graduation** Inlaid ivory scale from -2° to 107° by 20', measuring to 92°. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 10½" (266 mm).

**Provenance** Acquired in 2006 from Rebecca L. Krasnegor.

**Description** Ebony frame and limb with a brass index arm and fittings; an inlaid ivory plate on the crossbar. The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by worm gear and milled clamping screw, and by a square-headed screw and a detached key. The sight vane has two pinholes and a swivelling shutter. A capped pencil or screwdriver is missing from the crossbar. A detached adjustment key. Pencil notes on the back of the right strut. In a keystone box containing a trade label for John Kehew, 49 North Water Street, New Bedford (after 1839) with pencil

notes, and in the lid a trade label for C.R. Sherman and Co, 49 North Water Street, New Bedford (after 1865).

**Note** Spencer, Barrett and Co are not recorded in Clifton, *Directory*, they were probably active during the first half of the nineteenth century.

**Literature** Mörzer Bruyns, 'Trade Labels', 12, 21.

**Obj. no.** 1932.21

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Barrett and Co

**Date** About 1830

**Inscriptions** Signed on the ivory plate on the crossbar 'Spencer . Barrett. & C<sup>o</sup>. | London'

**Graduation** Inlaid ivory scale from  $-3^{\circ}$  to  $107^{\circ}$  by  $20'$ , measuring to  $93^{\circ}$ . Ivory vernier to  $1'$ , zero at the right.

**Dimensions** Radius  $9\frac{1}{2}''$  (241 mm).

**Provenance** Acquired in 1932 from Mabel S. Taylor.

**Description** Ebony frame and limb with a brass index arm and fittings; an inlaid ivory plate on the crossbar. No tangent screw, the clamping screw is on the back of the index arm. Three index shades (two red, one green), no horizon shades. Index-glass (mount damaged) adjustment by screw; adjustment of the horizon glass by lever, wing nut and milled clamping screw. The sight vane has two pinholes and a swivelling shutter. A capped pencil or screwdriver is missing from the crossbar. In a keystone box containing in the lid a trade label for F.W. Lincoln and Co, 126 Commercial Street, Boston (1858-1856). The box contains two index glasses from another instrument.

**Note** According to the NBWM file this octant was used by Captain Andrew J. Simpson. Spencer, Barrett and Co are not recorded in Clifton, *Directory*, they were probably active during the first half of the nineteenth century.

**Literature** Mörzer Bruyns, 'Trade Labels', 5, 21.

**Obj. no.** 1930.10

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer and Co

**Date** About 1830

**Inscriptions** Signed on the ivory plate on the crossbar 'Spencer & C<sup>o</sup> London.'

**Graduation** Inlaid ivory scale from  $-2^{\circ}$  to  $100^{\circ}$  by  $20'$ , measuring to  $92^{\circ}$ . Ivory vernier to  $1'$ , zero at the right.

**Dimensions** Radius  $9\frac{1}{2}''$  (241 mm).

**Provenance** Acquired in 1930 from Miss Lucy M. Warren.

**Description** Ebony frame and limb with brass index arm and fittings, a brass stop for the index arm; inlaid ivory plates on the crossbar and the back of the frame (missing). No tangent screw, the clamping screw is on the back of the index arm. Three shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glass by screw and by lever, wing nut and milled clamping screw. Sight vane with two pinholes and a swivelling shutter. Capped pencil or screwdriver missing from the crossbar. In a stepped oak, keystone box containing in the lid a trade label for John Kehew, 69 North Water Street, New Bedford (after 1839). In pencil on the label 'Robert W. [illegible]', probably for Robert W. Warren. Various pencil notes are found inside the lid.

**Note** According to the donor this octant was used by Robert M. Warren of Long Plains.

**Literature** Mörzer Bruyns, 'Trade Labels', 12; Clifton, *Directory*, 261.

**Obj. no.** 00.14

**Obj. name** Octant

**Origin** London, England

**Maker** John Crichton

**Date** About 1840

**Inscriptions** Signed on the ivory plate on the crossbar ‘Crichton London | Made for J Jordison Middlesbro’

**Graduation** Inlaid ivory scale from  $-3^{\circ}$  to  $104^{\circ}$  by  $20'$ , measuring to  $90^{\circ}$ . Ivory vernier to  $1'$ , zero at the right.

**Dimensions** Radius  $9\frac{1}{2}''$  (241 mm).

**Provenance** Unknown

**Description** Ebony frame and limb with a brass index arm and fittings; inlaid ivory plates on the crossbar and on the back of the frame. The tangent screw and clamping screw are on the back of the index arm. Three shades (two red, one green), two horizon shades (green and blue); the horizon shades and their mount are not original to this instrument. Index-glass adjustment by screw; adjustment of the horizon glass by capstan screws. The sight vane has one pinhole. An ivory-capped pencil (jammed) in the crossbar. There are pencilled digits on the back of the right strut. In a brown-lacquered keystone box containing in the lid a trade label for DeMory Gray and Co, 62 South Street, New York; the label has pencil notes including ‘June 1880’ and ‘\$2.50’. A damaged circular green paper label seems to refer to the winning of a prize for drawing instruments.

**Note** John Crichton worked from 1831 to 1868.

**Literature** Clifton, *Directory*, 71.

**Obj. no.** 2001.100.4088

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Rust

**Date** About 1840

**Graduation** Inlaid ivory scale from  $-2^{\circ}$  to  $99^{\circ}$  by  $20''$ , measuring to  $89^{\circ}$ . Ivory vernier to  $1'$ , zero at the right.

**Dimensions** Radius  $6''$  (144 mm)

**Inscriptions** Signed on the ivory plate on the crossbar ‘Spencer . Browning & Rust. London.’; Stamped at the centre of the scale (at  $47^{\circ}$ ) ‘SBR’ ; Marked on the inlaid plate ‘H. Duren New-York’

**Provenance** KWM

**Description** Ebony frame and limb with a brass index arm and fittings. Tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by lever, worm gear and milled clamping screw. A threaded telescope bracket without adjustment, with a swivelling shutter with one pinhole. A plastic capped modern pencil in the crossbar. In an oak keystone box containing in the lid a trade label for Samuel Thaxter and Son, 125 State Street, Boston (after 1822); it is stuck over an older trade label, probably also for Thaxter and Son There a numerous pencil marks in the lid. The box is decoratively painted on the outside, bearing the initials ‘J. H.’ on the lid.

**Note** Henry Duren was active as a retailer of nautical instruments in New York after 1855.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, ‘Trade Labels’, 4, 13-14.

**Obj. no.** 1954.7.2

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1850

**Inscriptions** Signed on the ivory plate on the crossbar ‘. Spencer . Browning & C<sup>o</sup>. London’ ; Stamped at the centre of the scale (at 53°) ‘SBR’

**Graduation** Inlaid ivory scale from -2° to 104° by 20', measuring to 92°. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 9½" (241 mm).

**Provenance** Acquired in 1954 from Frank W. Fraits, given in memory of his wife Chloe Macomber Fraits.

**Description** Ebony frame and limb with brass index arm and fittings; inlaid ivory plates on the crossbar and the back of the frame. The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glass by worm gear and milled clamping screw, and by square-headed screw and detached key (both missing). Sight vane with two pinholes and a swivelling shutter. A capped pencil or screwdriver is missing from the crossbar. In a stepped keystone box containing in the lid a trade label for John Kehew, 69 North Water Street, New Bedford (after 1839). Chalked in the lid in MS ‘J.L. Mac[illegible] | 2 Gla[illegible]’, possibly for J. Macomber.

**Note** According to the donor this octant was used by Captain Joshua Macomber, master of the New Bedford whaling bark *Martha II* (from 1862-1865); she was captured and burned by the CSS *Shenandoah* in 1865. Macomber was the father of Chloe Macomber Fraits. Spencer, Browning and Co were probably active between about 1840 and 1870, they continued to use the SBR scale stamp.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, ‘Trade Labels’, 12, 21; American Offshore Whaling Voyages database.

**Obj. no.** 1965.74.2

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1850

**Inscriptions** Signed on the ivory plate on the crossbar ‘. Spencer & Browning & C<sup>o</sup> London .’

**Graduation** Inlaid ivory scale from -2° to 104° by 20', measuring to 91°. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 10½" (266 mm).

**Provenance** Acquired in 1965 from Mrs Harold A. Burr, donated in memory of Charles A. Burr's youngest son Wills J. Burr.

**Description** Ebony frame and limb with a brass index arm and fittings; inlaid ivory plates on the crossbar and the back of the frame. The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glass by worm gear and milled clamping screw. Sight vane with two pinholes and a swivelling shutter. Capped pencil or screwdriver is missing from the crossbar. In a stepped oak keystone box painted dark green on the outside, and containing in the lid a trade label for David Baker, 44 North Water Street, New Bedford (after 1823), and various pencil notes.

**Note** According to the NBWM file Charles A. Burr was the first mate on the whaling bark *Montezuma*, and his son Wills J. Burr sailed on *Montezuma* too. Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 11, 21; Brewington, *The Peabody Museum Collection*, 118.

**Obj. no.** 1940.24.104

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1850

**Inscriptions** Signed on the ivory plate on the crossbar 'Spencer, Browning & C<sup>o</sup> London.' ; Stamped at the centre of the scale (at 53°) 'SBR'.

**Graduation** Inlaid ivory scale from -2° to 108° by 20', measuring to 94°. Ivory vernier by 1', zero at the right.

**Dimensions** Radius 9½" (241 mm).

**Provenance** Acquired in 1940 from Dr C.R. Hunt.

**Description** Ebony frame and limb with brass index arm and fittings; an inlaid ivory plate on the crossbar. The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), no horizon shades. Index-glass adjustment by screw, adjustment of the horizon glass by worm gear and milled clamping screw, and square-headed screw and detached key. Sight vane with two pinholes and a swivelling shutter. In an oak keystone box containing in the lid the remnants of a trade label probably for Henry Duren, possibly for DeMory Gray, who were both active at 20 Burling Slip in New York (Duren after 1855). This label is stuck over the remnants of another label. Various pencil notes in the box.

**Note** According to the donor this octant belonged to Charles A. Burr, the first mate of the bark *Montezuma*. Spencer, Browning and Co were probably active between about 1840 en 1870, they continued to use the SBR scale stamp.

**Literature** Clifton, *Directory*, 261.

**Obj. no.** 1996.27

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1860

**Inscriptions** Signed on the ivory plate on the crossbar 'Spencer, Browning & C<sup>o</sup> London.' ; Stamped at the centre of the scale (at 53°) 'SBR'

**Graduation** Inlaid ivory scale from -2° to 106° by 20', measuring to 92°. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 9½" (241 mm).

**Provenance** Acquired in 1996 from Jerrold Rogers.

**Description** Ebony frame and limb with brass index arm and fittings; inlaid ivory plates on the crossbar and the back of the frame (missing). The tangent screw and clamping screw are on the back of the index arm. Three shades (two red, one green[cracked]), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glass by lever, worm gear and milled clamping screw, and by a square-headed screw and detached key. Sight vane with two pinholes and a swivelling shutter. Adjusting key. A capped pencil or screwdriver is missing from the crossbar. One foot is missing from the back of the frame, that strut is cracked and repaired. In an oak keystone box containing in the lid a trade label for Duren and Medinger, 20 Burling Slip, New York, with in MS 'Spar Boy', an pencil calculations inside the lid..

**Note** According to the NBWM file this instrument belonged to Antonio Joseph Rogers (1848-1913) from the Azores, who worked as a boat steerer on the New Bedford whale ships *Andrews* (sailed 1850-1867) and *Charles W. Morgan* (built 1841). Spencer, Browning and Co

were probably active between about 1840 and 1870, they continued to use the SBR scale stamp.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 21, 24.

**Obj. no.** 2000.35

**Obj. name** Octant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1860

**Inscriptions** Signed on the ivory plate on the crossbar 'Spencer . Browning & C<sup>o</sup> London . | late | Spencer . Browning & Rust . ' ; Stamped at the centre of the scale (at 53°) 'SBR'

**Graduation** Inlaid ivory scale from -2° to 107° by 20', measuring to 92°. Ivory vernier to 1', zero at the right.

**Dimensions** Radius 9½" (241 mm).

**Provenance** Purchased in 2000 from Margaret Ilavoire, it was given [to her?] by Captain Giles P. Slocum to Anton P. Souza (under alias Captain Henry Fisher).

**Description** Ebony frame and limb with brass index arm and fittings; inlaid ivory plates on the crossbar and the back of the frame. The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), no horizon shades. Index-glass adjustment by screw; adjustment of the horizon glass by worm gear and milled clamping screw, and by a square-headed screw and detached key. Sight vane with two pinholes and a swivelling shutter (missing). Ivory cap for pencil (missing) in the crossbar. Adjusting key. In a mahogany keystone box containing in the lid a trade label for Spencer, Browning and Co (late Spencer, Browning and Rust) partially stuck over with a trade label for Louis Weule, successor to Charles Page, 418 Battery Street, San Francisco. Another trade label, possibly for Spencer, Browning and Rust, is stuck over with a piece of paper with in MS 'Capt. Giles P. Slocum | New Bedford, Mass'. The top of the lid is decorated with a green and red painted compass rose with ten [sic!] points

**Note** Captain Giles P. Slocum was master of the New Bedford whale barks *Platina* (from 1887-1890), *California* (from 1891-1895), *Belvedere* (from 1893-1896), and *Horatio* (in 1896). Spencer, Browning and Co were probably active between about 1840 and 1870, they continued to use the SBR scale stamp.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 21; American Offshore Whaling Voyages database.

## Sextants

**Obj. no.** 00.8

**Obj. name** Sextant | Hoppe's improved sextant

**Origin** London, England

**Maker** Unknown

**Date** About 1806

**Inscriptions** Marked on the limb 'Hoppe's Improved Sextant London 481'

**Graduation** Polished brass limb with inlaid silver scale from -2° to 139° by 15', measuring to 120°. Silver vernier to 15", zero at the right.

**Provenance** Acquired from Frank Wood.

**Dimensions** Radius 8½" (215 mm).

**Description** Polished brass diamond-pattern frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four shades (three red, one green); three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by a worm screw operated by a capstan screw. Magnifier on a 95 mm swivelling

arm. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and a milled knob (detached, should be placed back). Telescope (88 mm) erect image; telescope (161 mm) inverted image, four cross wires. Sight-tube (81 mm); shaded eyepiece (red); adjusting pin. One part, possibly a screwdriver, is missing. In a fitted mahogany keystone box containing in the lid a trade label for John Kehew, 69 North Water Street, New Bedford (after 1839).

**Note** Hoppe's improvement as described in the 1808 brochure and found on two other recorded examples, consists of an index glass that can be rotated by a short index arm that moves over a second scale mounted on top of the frame, in order to increase the instrument's range. That feature is not found on this example, which may have been modified at a later date. The other examples were made by John Hinde, preserved in the National Maritime Museum, Greenwich, London (NAV1235), and by an unknown maker in the Peabody Essex Museum, Salem, MA, with instrument number 329 (M27480). The 1808 brochure states that Benjamin Messer in London made Hoppe's improved sextants. The Peabody Essex Museum's example has the same radius, both are fractionally smaller than that at Greenwich.

**Literature** *An Explanation of E. Hoppe's Improved Sextant; Instructions for using the Improved Sextant; with a few Remarks on the Important Advantages it affords to Nautical Observers*. London, 1808; Ifland, *Taking the Stars*, 29-31; Mörzer Bruyns, *Sextants at Greenwich*, 180; Clifton, *Directory*, 36, 140; Mörzer Bruyns, 'Trade Labels', 12.

**Obj. no.** 1983.45.11

**Obj. name** Sextant

**Origin** London, England

**Maker** Edward Troughton

**Date** About 1810

**Inscriptions** Signed on the limb 'Troughton London'; Marked on the centre strut '363'

**Graduation** Polished brass scale from  $-5^{\circ}$  to  $140^{\circ}$  by  $10'$ , measuring to  $124^{\circ}$ . Brass vernier to  $10''$ , zero at the right.

**Dimensions** Radius  $9\frac{1}{2}''$  (241 mm).

**Provenance** Acquired in 1983 from Mercator Cooper Kendrick, Southampton, NY.

**Description** Polished brass straight-bar pattern pillar frame (24 pillars), wooden handle. The tangent screw and clamping screw are on the back of the index arm. Three shades (two red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by thumb screw. Magnifier on a 90 mm swivelling arm, the magnifier is fitted in a brass disc painted white on the back for reflection. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (74 mm) erect image, the objective lens is cracked; telescope (177 mm) inverted image, two cross wires. A magnifying glass; a shaded eyepiece is missing. In a polished mahogany keystone box (badly damaged).

**Note** Troughton sextant with instrument number 1003 of about 1820 is preserved in the National Maritime Museum, Greenwich, London (NAV1156). Edward Troughton patented the pillar and plate frame (no. 1644 of 1788).

**Literature** Mörzer Bruyns, *Sextants at Greenwich*, 38, 184; Clifton, *Directory*, 282.

**Obj. no.** 1983.55.4

**Obj. name** Sextant

**Origin** London, England

**Maker** Spencer, Browning and Rust

**Date** About 1840

**Inscriptions** Signed on the limb 'Spencer Browning & Rust, London'

**Graduation** Polished brass limb with inlaid silver scale from  $-5^{\circ}$  to  $145^{\circ}$  by  $10'$ , measuring to  $135^{\circ}$ . Silver vernier to  $10''$ , zero at the right.

**Dimensions** Radius  $8''$  (203 mm).

**Provenance** Acquired in 1983 from Mrs Helen K. Sindlinger.

**Description** Varnished (latterly poorly cleaned) triangle-pattern brass frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four index shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by capstan screws, and a square-headed screw and a detached key. Magnifier on a 90 mm swivelling arm. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (73 mm) erect image; telescope (191 mm) inverted image, four cross wires (damaged); telescope ocular (29 mm). Sight-tube (92 mm); shaded eyepiece (red); adjusting key. In a fitted keystone box containing in the lid a trade label for Richard Patten, 180 Water Street, New York (after 1813).

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 6.

**Obj. no.** 1948.19

**Obj. name** Sextant

**Origin** London, England

**Maker** Edward Troughton and William Simms

**Date** About 1845

**Inscriptions** Signed on the limb 'Troughton & Simms, London.'; Marked on the frame '3066' and 'Platina'

**Graduation** Polished brass limb with inlaid platinum scale from  $-5^{\circ}$  to  $155^{\circ}$  by  $10'$ , measuring to  $133^{\circ}$ . Platinum vernier to  $10''$ , zero at the right.

**Dimensions** Radius  $8''$  (203 mm).

**Provenance** Acquired in 1948 from Miss Alice A. Charry.

**Description** Polished brass straight-bar pattern pillar frame (20 pillars), bone or ivory handle. The tangent screw and clamping screw are on the back of the index arm. Four shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the index glass by square-headed screw and detached key. Magnifier on a 70 mm swivelling arm, a frosted glass shade. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (78 mm) erect image; telescope (182 mm) inverted image, two cross wires; extra drawtube (91 mm) two cross wires. Sight-tube (131 mm); two shaded eyepieces (both green); adjusting key. The magnifying glass is missing. In a mahogany keystone box lined with green textile and an inlaid silver plate on the lid marked 'Captain John Charry'. It contains a piece of chamois leather, and an oval-shaped shade (red) in a small nineteenth-century frame, not original to this instrument. A silver plate mounted on the inside of the handle is inscribed 'Presented by the British Government | to | Captain John Charry | of the U.S. Brigantine "Oxford" of New Haven, Mass. | in recognition of his humane services | to the crew of the | Barque "Johanna" of Alloa, in Oct<sup>br</sup> 1864'.

**Note** Captain John Charry was master of the Fairhaven whale brig *Oxford* (from 1864-1865); she was built at Fairhaven in 1849 and owned by Lewis Judd and Tucker Damon Jnr, also at Fairhaven. *Oxford* was lost in 1869 in Cumberland Inlet. At the time of the presentation the sextant was valued at £20. Troughton and Simms sextant with instrument number 2739 of about 1840 is preserved in the National Maritime Museum, Greenwich, London (NAV1157). Edward Troughton patented the pillar and plate frame (no. 1644 of 1788).

**Literature** Mörzer Bruyns, *Sextants at Greenwich*, 38, 191; Chaldecott, 'Platinum and Palladium'; Clifton, *Directory*, 282; *Parliamentary Papers* (GB) vol. 65, 1864; American Offshore Whaling Voyages database.

**Obj. no.** 2000.30.1

**Obj. name** Sextant

**Origin** New York, New York

**Maker** Edmund and George William Blunt

**Date** 1845

**Inscriptions** Signed on the limb 'E & G.W. Blunt, N. York.'

**Graduation** Polished brass limb with inlaid silver scale from  $-5^{\circ}$  to  $145^{\circ}$  by 10', measuring to  $125^{\circ}$ . Silver vernier to 10", zero at the right.

**Dimensions** Radius 7" (177 mm).

**Provenance** Acquired in 2000 from Philip Clough.

**Description** Polished brass frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four index shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by square-headed screw and detached key. Magnifier on a 80 mm swivelling arm, a frosted glass shade. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (86 mm) erect image; telescope (162 mm) inverted image, four cross wires (damaged). Sight-tube (80 mm); shaded eyepiece (red); adjusting key; the magnifying glass is missing. In a fitted keystone box containing in the lid a trade label for Charles Taber and Co, 45 Union Street and 8 North Water Street, New Bedford. On the lid a brass plate inscribed 'Presented to Benjamin Clough of the | ship Sharon of Fairhaven by the Mutual | Safety & Sun Mutual Insurance Companies | of New York, in token of their admiration | of the intrepidity displayed by him in | rescuing the vessel, from mutineers on | the sixth day of November, 1842. | New York, March 26<sup>th</sup> 1845'

**Note** Captain Benjamin Clough was master of the Fairhaven whale ship *Sharon* (from 1845-1848). Nice instrument in fine condition.

**Literature** Mörzer Bruyns, 'Trade Labels', 12; Brewington, *The Peabody Museum Collection*, 120; American Offshore Whaling Voyages database.

**Obj. no.** 1954.7.1

**Obj. name** Sextant

**Origin** London, England

**Maker** John Crichton

**Date** About 1855

**Inscriptions** Signed on the limb 'Crichton, London'; Marked on the limb '2547'

**Graduation** Polished brass limb with inlaid silver scale from  $-5^{\circ}$  to  $150^{\circ}$  by 10', measuring to  $128^{\circ}$ . Silver vernier to 10", zero at the right.

**Dimensions** Radius 9" (229 mm).

**Provenance** Acquired in 1954 from Frank W. Fraits, in memory of his wife Chloe Macomber Fraits.

**Description** Varnished brass triangle-pattern frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four index shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by capped thumb screw and capped screw. Magnifier on a 95 mm swivelling arm, a frosted glass shade. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (81

mm) erect image; telescope (182 mm) inverted image, two cross wires; extra draw tube (79 mm) inverted image, no cross wires. Sight-tube (79 mm); two shaded eye pieces (both green); the magnifying glass is missing. In a mahogany keystone box, lined with green textile.

**Note** Captain Joshua Macomber was master of the New Bedford whaling bark *Martha II* (from 1862-1865); she was captured and burned by the CSS *Shenandoah* in 1865. Macomber was the father of Chloe Macomber. John Crichton worked from 1831 to 1868.

**Literature** Clifton, *Directory*, 71; American Offshore Whaling Voyages database.

**Obj. no.** 2001.100.3049

**Obj. name** Box sextant | Pocket sextant

**Origin** London, England

**Maker** Elliott Brothers

**Date** About 1855

**Inscriptions** Signed on the upper plate 'Elliott Bro<sup>s</sup>, London.' [read from the pivot]

**Graduation** Inlaid silver scale from  $-5^{\circ}$  to  $155^{\circ}$  by  $30'$ , measuring to  $133^{\circ}$  (the digits are read from the pivot). Silver vernier to  $1'$ , zero at the left.

**Dimensions** Radius  $1\frac{1}{2}''$  (38 mm); diameter 68 mm.

**Provenance** KWM

**Description** Circular anodized brass plates with a lid with bayonet fitting that when attached to the back of the instrument serves as the handle. The index arm is moved by a milled knob on the upper plate. No shades. Index glass without adjustment; adjustment of the horizon glass by a milled key mounted in the upper plate. The lid has a small brass handle on the back, and contains a paper table for natural tangents to the power of 100. Magnifier (single lens) on a hinged 38 mm swivelling arm. No telescope. Sliding pinhole sight with choice of small or a larger pinhole, or a shade (green).

**Note** An almost identical box sextant by Elliott Brothers is preserved in the National Maritime Museum, Greenwich, London (NAV1153).

**Literature** Clifton, 'An Introduction to the History of Elliott Brothers'; Clifton, *Directory*, 95; Mörzer Bruyns, *Sextants at Greenwich*, 199.

**Obj. no.** 1964.14.2

**Obj. name** Sextant

**Origin** Probably England

**Maker** Unknown

**Date** About 1865

**Inscriptions** Signed on the limb 'Riggs & Brothers. Philadelphia'; Marked on the limb '2104'

**Graduation** Polished brass limb with inlaid silver scale from  $-5^{\circ}$  to  $130^{\circ}$  by  $20'$ , measuring to  $115^{\circ}$ . Silver vernier to  $30''$ , zero at the right.

**Dimensions** Radius  $7''$  (177 mm).

**Provenance** Acquired in 1964 from Captain Kenneth Wing.

**Description** Anodized brass tulip-pattern frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Three index shades (two red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by capstan screws, and square-headed screw and detached key. Magnifier on a 80 mm swivelling arm. Threaded telescope bracket without adjustment. Telescope (70 mm) erect image (star finder); telescope (83 mm) erect image. Sight-tube (81 mm); shaded eyepiece (red); adjusting key; adjusting pin; a piece of chamois leather. In a square fitted mahogany box containing a trade label for Max Kuner Co, 804 First Avenue, Seattle, and in the lid a trade label for Chas. Hutchinson, 152 State Street, Boston and in pencil 'Wing | 102 Cushing Ave | Dorchester'.

**Note** According to the NBWM file this octant belonged to Captain Benjamin Franklin Wing, master of the New Bedford whale ships *Good Return II* (from 1851-1858), *Young Phenix* (from 1860-1863), and the bark *Atlantic* (from 1865-1868, 1876-1879 and 1880-1882). William H.C. Riggs was a clock and watchmaker, and nautical store holder in Philadelphia; the firm's name changed to 'Riggs and Brothers' after 1865. It is very unlikely that they made sextants. The Max Kuner Co business opened in Seattle in 1897.

**Literature** Mörzer Bruyns, 'Trade Labels', 9, 17; American Offshore Whaling Voyages database.

**Obj. no.** 1942.53

**Obj. name** Sextant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1865

**Inscriptions** Signed on the limb 'Spencer, Browning & Co London.' ; Marked on the limb '4194' and 'U.S. Navy ® 16977'

**Graduation** Polished brass limb with inlaid silver scale from -5° to 155° by 10', measuring to 134°. Silver vernier to 10", zero at the right.

**Dimensions** Radius 7" (177 mm).

**Provenance** Acquired in 1942 from W.L.R. Gifford.

**Description** Anodized brass triangle-pattern frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four index shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by capstan screws, and a square-headed screw and detached key. Magnifier on a 90 mm swivelling arm. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (177 mm) inverted image, four cross wires. Sight-tube (91 mm); shaded eyepiece (red); adjusting key; adjusting pin. The short telescope and magnifying glass are missing. In a fitted mahogany keystone box containing in the lid a trade label for C.R. Sherman and Co, 49 North Water Street, New Bedford (after 1865), with pencil marks for the index correction. Inside the lid written in pencil 'D.W. Gifford'; stamped inside the box '16977' (the US Navy number).

**Note** This sextant belonged to the donor's father, Captain Daniel W. Gifford, master of the New Bedford whaling barks *Spartan* (from 1865-1868), *Kathleen* (from 1884-1890) and *Sunbeam* (from 1895-1900). Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 12, 21; American Offshore Whaling Voyages database.

**Obj. no.** 1962.6

**Obj. name** Sextant

**Origin** London, England

**Maker** Henry Hughes and Son Ltd.

**Date** About 1919

**Inscriptions** Signed on the limb 'H Hughes & Son L<sup>td</sup> 59 Fenchurch St. London E.C.' ; Marked on the limb '8554'

**Graduation** Polished brass limb with inlaid silver scale from -5° to 155° by 10', measuring to 125°. Silver vernier to 10", zero at the right.

**Dimensions** Radius 6½" (165 mm).

**Provenance** Acquired in 1962 from Mrs Laurence T. Durfee.

**Description** Anodized brass three-circle pattern frame, wooden handle lined on one side with ivory. The tangent screw and clamping screw are on the back of the index arm. Four shades (one red, three grey), three horizon shades (all grey). Index-glass adjustment by square-headed screw and detached key; adjustment of the horizon glass by square-headed screws and detached key. Magnifier on a 70 mm swivelling arm, a frosted glass shade. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (72 mm) erect image, (star finder); telescope (183 mm) inverted image, two cross wires; extra drawtube (76 mm) inverted image, two cross wires. Sight-tube (81 mm); two shaded eyepieces (both green); adjusting key. In a square fitted mahogany box, containing in the lid a Class A certificate of examination of the National Physical Laboratory, Teddington, dated December 1919, and a label for T.S. and J.D. Negus, 140 Water Street, New York. An inlaid plate is missing from the top of the lid.

**Literature** Brewington, *The Peabody Museum Collection*, 136.

**Obj. no.** 1971.21

**Obj. name** Left-handed air-sextant with artificial (bubble) horizon

**Origin** Hamburg, Germany

**Maker** Carl Plath

**Date** About 1934

**Inscriptions** Signed on the limb 'C. Plath Hamburg' ; Marked on the limb [Plath logo] and '11390'; marked on the index arm 'System | Admiral Gago Coutinho' ; a label on the back of the artificial horizon is for 'J. Garraio & C<sup>a</sup> Suc<sup>tes</sup> | Instrumentos Nauticos | Av. 24 de Julho. 2-1<sup>o</sup> Lisboa'

**Graduation** Polished aluminium limb with inlaid [possibly] gold scale from -5° to 140° by 10', measuring to 133°. [possibly] Gold vernier to 1', zero at the left.

**Dimensions** Radius 6" (153 mm).

**Provenance** Acquired in 1971 from Francis M. Rogers.

**Description** Aluminium triangle-pattern black-painted alloy frame, plastic handle that is also a battery container. The index arm is moved along a toothed rim at the bottom of the limb by a tangent screw that moves a worm screw. Four index shades (all green), three half horizon shades (all green). Index-glass and horizon glass adjustment by square-headed screws and detached key. The magnifier with a frosted plastic shade is fixed onto the index arm, and has a battery-operated light that can be operated by a button on the handle. Telescope (76 mm) erect image (star finder); telescope (76 mm) erect image; sight-tube (47 mm), all three have fixed brackets, and have to be slid onto the frame and secured by milled screws. Several (spare) parts, including a screwdriver, a battery charger, and a spare bubble; some parts (possibly batteries) are missing. In a circular tin painted black, with a leather strap and an aluminium plate on the lid marked 'System | Adm. Gago Coutinho | C. Plath Hamburg'.

**Artificial horizon** This consists of two bubble levels at a right angle in an aluminium case that is fitted behind the horizon glass. A small hinged plate at the bottom, lined with white plastic, is for reflecting light on the bubble. The horizon glass has a clear split for observing the bubbles, and also a clear part to the right, so that the sextant can also be used with the natural horizon.

**Note** Gago Coutinho (1869-1959) first used a sextant with an artificial bubble horizon of his own design in 1922 on a flight across the South Atlantic Ocean; he was the first aviator to fly across that Ocean, and had to make several stops, including on the Brazilian island of Fernando de Noronha and at Praia in the Cape Verdes. In 1930 Plath in Hamburg began manufacturing the Coutinho-design sextant commercially. This is a rare left-handed sextant, and although lacking some parts, it is in beautiful condition. The Garraio firm is still at the same address in Lisbon (in 2012); it will have been the importer of the instrument.

Presumably the donor, Francis Millet Rogers, was the author of *Atlantic Islanders of the Azores and Madeiras* and other books.

**Literature** Ifland, *Taking the Stars*, 161-163 ; Mörzer Bruyns, *Sextants at Greenwich*, 59.  
[www.wikipedia.org](http://www.wikipedia.org)

### Quintants

**Obj. no.** 2006.57.18

**Obj. name** Quintant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1860

**Inscriptions** Signed on the limb 'Spencer, Browning & C<sup>o</sup> London.'

**Graduation** Polished limb with inlaid silver scale from  $-5^{\circ}$  to  $155^{\circ}$  by  $10'$ , measuring to  $136^{\circ}$ . Silver vernier to  $10''$ , zero at the right.

**Dimensions** Radius  $7''$  (177 mm).

**Provenance** Acquired in 2006 from Rebecca L. Krasnegor.

**Description** Anodized brass triangle-pattern frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four index shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by capstan screws, and a square-headed screw and a detached key. Magnifier on a 90 mm swivelling arm, a frosted glass shade. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (82 mm) erect image; telescope (175 mm) inverted image. Sight-tube (93 mm); shaded eyepiece (red) adjusting key; adjusting pin; the magnifying glass is missing. In a mahogany fitted keystone box containing in the lid a trade label for C.R. Sherman and Co, 49 North Water Street, New Bedford (after 1865), and marked in MS 'Capt. Baker'. On the top of the lid is a piece of paper with in MS 'Amos C Baker | Bark A.R. Tucker'. The box contains a business card for Sherman with on the back in pencil several notes including 'Oct 8 1867', 'No Index Error', and 'Amos C Baker'.

**Note** Captain Amos Crowell Baker (†1911) went to sea at 12 or 13, and was master of the New Bedford whale bark *A.R. Tucker* (from 1874-1879). In 1879 he became keeper of Clark's Point lighthouse in New Bedford, and later, until his death, of Butler Flats lighthouse. Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 12, 21;  
[www.lighthousefriends.com](http://www.lighthousefriends.com) ; American Offshore Whaling Voyages database.

**Obj. no.** 1940.24.105

**Obj. name** Quintant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1870

**Inscriptions** Signed on the limb 'Spencer Browning & Co. London'

**Graduation** Polished limb with inlaid silver scale from  $-5^{\circ}$  to  $155^{\circ}$  by  $10'$ , measuring to  $136^{\circ}$ . Silver vernier to  $10''$ , zero at the right.

**Dimensions** Radius  $8''$  (203 mm).

**Provenance** Acquired in 1940 from Dr C.R. Hunt.

**Description** Anodized brass oval-pattern frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four index shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by capstan screws, and a square-headed screw and a detached key. Magnifier on

a 90 mm swivelling arm, a frosted glass shade. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (82 mm) erect image; telescope (177 mm) inverted image four cross-wires; extra drawtube (80 mm) inverted image, two cross wires. Sight-tube (92 mm); shaded eyepiece (red); adjusting pin, the magnifying glass is missing. In a mahogany keystone box containing in the lid a trade label for John Kehew, 49 North Water Street, New Bedford (after 1839), and in MS '3598'.

**Note** Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 12.

**Obj. no.** 2001.100.2807

**Obj. name** Quintant

**Origin** London, England

**Maker** Henry Hughes and Son

**Date** About 1900

**Inscriptions** Signed on the limb 'Henry Hughes & Son, 59, Fenchurch St., London' ; Marked on the limb '3226'

**Graduation** Polished limb with inlaid silver scale from  $-5^{\circ}$  to  $160^{\circ}$  by  $10'$ , measuring to  $134^{\circ}$ . Silver vernier to  $10''$ , zero at the right.

**Dimensions** Radius  $6''$  (153 mm).

**Provenance** KWM

**Description** Anodized brass three-circle pattern frame, wooden handle. The tangent screw and clamping screw are on the back of the index arm. Four index shades (three red, one green), three horizon shades (two red, one green). Index-glass adjustment by screw; adjustment of the horizon glass by capstan screws. Magnifier on a 80 mm swivelling arm, a frosted glass shade. Threaded telescope bracket in two parts, fitted for correcting collimation error; perpendicular adjustment by rising-piece and milled knob. Telescope (65 mm) erect image (star finder); telescope (82 mm) erect image; telescope (184 mm) inverted image, four cross wires. Sight-tube (80 mm); shaded eyepiece (red); adjusting pin, the magnifying glass is missing. In a square fitted mahogany box, containing a trade label for Louis Weule Company, 106 Steuart Street, San Francisco. An inlaid plate is missing from the top of the lid.

**Note** This sextant is similar to Hughes and Son quintant with instrument number 2451 preserved in the National Maritime Museum, Greenwich, London (NAV1188). Louis Weule took over an older company in San Francisco in 1892; the name Louis Weule Company dates from after the 1906 earthquake.

**Literature** Mörzer Bruyns, *Sextants at Greenwich*, 206; [www.oac.cdlib.org](http://www.oac.cdlib.org)

### Artificial Horizons

**Obj. no.** 2001.100.2818

**Obj. name** Artificial mercurial horizon | Roof artificial horizon

**Origin** United States

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** None

**Graduation** None

**Dimensions** Height by width by length 157 mm by 63 mm by 63 mm.

**Provenance** KWM

**Description** Triangular wooden box with glass windows on all three sides, at right angles to each other. One end has a stop for pouring the mercury in and out. A small quantity of

mercury would cover one of the glass windows; the image of the celestial body would be reflected via the two other windows.

**Note** A crude, presumably home-made instrument. A similar example is preserved in Mystic Seaport Museum, Mystic, CT (1947.1598).

**Obj. no.** No number ?

**Obj. name** Artificial mercurial horizon | Roof artificial horizon

**Origin** Sydney, Australia

**Maker** James Oatley

**Date** 1815-1839

**Inscriptions** Signed on one of the sides 'James Oatley | Sydney'

**Dimensions** Height by length by width 110 by 188 by 82 mm.

**Provenance** Acquired in 1989 from Mrs John M. Washburn, Mattapoisett, Massachusetts.

**Description** A rectangular brass-framed roof-shaped cover and a fitting iron trough. Two sides of the cover have clear glass panels, at an angle of 90°. The trough is painted black on the inside and has leather linings at its short sides; it is screwed onto a plank, and with at one corner a fixed gutter for pouring the mercury out of the trough. No box, and no mercury container.

**Note** According to a note within its cover, this instrument was used by Captain Ansel Weeks (1799-1876), his octant is also in the NBWM collection (1946.18). He could be the Captain Weeks (no Christian name) who was master of the Nantucket whale ship *Criterion* (from 1824-1826) on a voyage to the Pacific. When visiting Sydney, the horizon will have bought there. Oatley (1770-1839) was a watchmaker at Stafford, England, who was transported to Australia in 1814; he could have sold this instrument between 1815 and 1839. This instrument needs conservation.

**Literature** *Australian Dictionary of Biography*; American Offshore Whaling Voyages database; information communicated (June 2012) by Julian Holland in Australia.

**Obj. no.** 1998.41

**Obj. name** Artificial mercurial horizon | Roof artificial horizon

**Origin** Probably England

**Maker** Unknown

**Date** About 1860

**Inscriptions** None

**Dimensions** Height by width by length 117 by 160 by 190 (the box).

**Provenance** Acquired in 1998 from Pricilla Swift Little and John B. Little of Sarasota, FL.

**Description** A cylindrical iron bottle with threaded stopper and pouring hole in which the mercury is stored (present!), when the instrument is not in use. The rectangular roof-shaped cover with clear-glass panels at a right angle, and the trough are missing.

**Note** These instruments were made in large numbers by various English instrument makers during the second half of the nineteenth century,

**Literature** Mörzer Bruyns, *Sextants at Greenwich*, 285-289.

### Ships' Compasses

**Obj. no.** 1994.28

**Obj. name** Ship's tell-tale compass

**Origin** Amsterdam, Netherlands

**Maker** Jacob de Jong

**Date** About 1750

**Inscriptions** Signed on the compass card 'Jacob de Jong in Amsterdam'

**Graduation** The compass card is divided by 32 points; and marked in MS: NO, O, SO, S, SW, W, NW were added later; graduation in four quadrants to 1°.

**Dimensions** Diameter of the compass card about 130 mm.

**Provenance** Acquired in 1994 from Henry Schaefer.

**Description** Circular wooden bowl painted red and gold, with a glass cover and bottom, in gimbals; a gold painted suspension bracket. The printed paper compass card with MS details is pivoted on a brass pin; it carries an oval-shaped needle, and consists of several layers of paper, probably repairs. The bottom of the card is also graduated in four quadrants to 1°, and is partially covered by a sheet of mica. The North point of the card is indicated by a fleur-de-lis; the other seven main point are decorated, the East point is also indicated by two accolades; the centre shows Neptune.

**Note** The bowl could not be opened for inspection. The added MS marks on the card are the Dutch abbreviations for the eight cardinal points. De Jong was a compass maker in Amsterdam between 1740 and 1767. An almost identical compass card by him (but without graduation) is preserved in the Scheepvaartmuseum, Amsterdam, Netherlands (S.0257).

**Literature** Kuile and Mörzer Bruyns, *Amsterdamse kompasmakers*, 77-78.

**Obj. no.** 1927.20

**Obj. name** Bearing compass

**Origin** Probably Providence, Rhode Island

**Maker** Probably Isaac Greenwood

**Date** 1783-1810

**Inscriptions** Signed on the compass card 'Isaac Greenwood, Providence'

**Graduation** The compass card is divided by 32 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card about 150 mm.

**Provenance** Acquired in 1927 from James E. Crosby.

**Description** Square wooden box with a glass cover, gimballed in a square wooden box, both with traces of red paint. The inner box has two square holes fitted with glass and vertical threads. The outer box also has two square holes, opposite the inner holes; these have vertically sliding lids, one of which has a centred hole. The printed paper compass card probably carries one heavy needle; it is pivoted on a brass pin. The North point of the card is indicated by a fleur-de-lis, the East point by leaves. The name of Greenwood is printed on a circular piece of paper, which is stuck over the original makers name, probably for Greenwood at his New York address.

**Note** According to the NBWM file this compass was owned by Paul Cuffee, presumable Paul Cuffee (1759-1817), who sailed in New Bedford whale ships. The compass box could not be opened for inspection. Isaac Greenwood (1758-1829) worked in New York from 1783 to 1787, and in Providence from 1787 to 1810; this compass may have been made during his New York period.

**Literature** Bedini, 'Isaac Greenwood III'; Mörzer Bruyns, 'Trade Labels', 4; see Cuffee's lemma on [www.wikipedia.org](http://www.wikipedia.org)

**Obj. no.** 00.126.1

**Obj. name** Ship's tell-tale compass

**Origin** United States

**Maker** Possibly John Kehew | R.M. Gaw

**Date** About 1830

**Inscriptions** Signed on the compass card 'J. Kehew, New Bedford' | 'R.M. Gaw'

**Graduation** The compass card is divided by 32 points and marked NE, E, SE, S, SW, W, W (mirrored), and in four quadrants to 5°.

**Dimensions** Diameter of the compass card 127 mm.

**Provenance** Unknown

**Description** Circular brass bowl with a glass bottom (cracked) in a gimbal with a suspension bracket. The printed paper compass card is pivoted on a brass pin; it carries one heavy needle and has pieces of black and red wax on the back and consists of two layers of paper separated by a sheet of mica. The North, East and West points of the card are indicated by fleurs-de-lis.

**Note** The card was modified from a regular to a tell-tale compass, probably by John Kehew, who established his business in New Bedford in 1839. All the points, except N and S, were stuck over to mirror the card for tell-tale use (NE to NW, etc.). The compass card was engraved by R.M. Gaw of New York, who in 1826 engraved a chart of the Bahama Banks and Gulf of Florida for E. and G.W. Blunt. As with compass 1975.34.9, John Kehew's name is printed on a circular piece of paper that was stuck around the centre of the card, possibly over the name of the original maker.

**Literature** Mörzer Bruyns, 'Trade Labels', 12; Brewington, *The Peabody Museum Collection*, 131; David MacNeely Stauffer and Mantle Fielding, *American Engravers Upon Copper and Steel: Checklist of the works of earlier engravers*. (New York, 1907) 174.

**Obj. no.** 2001.100.516

**Obj. name** Ship's dry-card compass

**Origin** Salem, Massachusetts

**Maker** Samuel Emmerly | Joseph Callender

**Date** About 1840

**Inscriptions** Signed on the compass card 'S. Emery \* Salem.' | 'Callender & P'

**Graduation** The compass card is divided by 32 points, and in four quadrants to 1°.

**Dimensions** Diameter of the compass card about 130 mm.

**Provenance** Unknown

**Description** Circular brass bowl with a glass cover, in gimbal. The bowl is weighted by lead. The printed paper compass card (damaged by paint or varnish) probably consists of two layers of paper separated by a sheet of mica. It is probably pivoted on a brass pin, and probably carries one heavy needle. The North point of the card is indicated by a fleur-de-lis; the East point is decorated.

**Note** Joseph Callender was a Boston engraver who supplied compass cards to several compass makers in New England. The bowl could not be opened for inspection.

**Literature** Brewington, *The Peabody Museum Collection*, 123, 125; Mörzer Bruyns, 'Trade Labels', 15.

**Obj. no.** 00.126.5

**Obj. name** Compass card

**Origin** New Bedford, Massachusetts

**Maker** David Baker

**Date** About 1840

**Inscriptions** Signed 'D. Baker New Bedford'

**Graduation** The compass rose is divided by 32 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card 188 mm.

**Provenance** Unknown

**Description** Tell-tale compass card printed on a square sheet of paper. The North point of the card is indicated by a shell from which three (sea) horses rise; the East point is indicated by a mermaid holding a looking glass.

**Note** The card was never used; the North and East point decorations are unusual. Sometime after 1823 David Baker set up his business as a nautical instrument maker at 44 North Street in New Bedford.

**Literature** Mörzer Bruyns, 'Trade Labels', 11, 15, 16; Brewington, *The Peabody Museum Collection*, 118.

**Obj. no.** 1983.45.18

**Obj. name** Japanese compass

**Origin** Japan

**Maker** Unknown

**Date** About 1845

**Inscriptions** Japanese characters on the top and inside of the lid.

**Graduation** Divided along the rim of the bowl by 24 points, of which 12 are marked by engraved and painted Japanese characters. No compass card or needle.

**Dimensions** Diameter of the compass rose 78 mm.

**Provenance** Acquired in 1983, probably from Mercator Cooper Kendrick, Southampton, NY.

**Description** Circular wooden bowl, no glass cover, with a wooden lid; the needle is missing.

**Note** According to the NBWM file this compass was probably recovered from the *Senju-maru* or the *Koho-maru* in 1845 by Captain Mercator Cooper (1803-1872), master of the whale ship *Manhattan* (from 1843-1846), after he had saved 11 Japanese seamen. Cooper is credited as being the first American to officially visit Japan. It would be useful if the NBWM had the Japanese characters translated and thereby having the compass more accurately dated.

**Literature** For Mercator Cooper see his lemma on [www.wikipedia.org](http://www.wikipedia.org) ; American Offshore Whaling Voyages database.

**Obj. no.** 00.220.8

**Obj. name** Ship's dry-card compass

**Origin** New Bedford, Massachusetts

**Maker** Charles R. Sherman

**Date** 1849-1865

**Inscriptions** Signed on the compass card 'C.R. Sherman. New Bedford.'

**Graduation** The compass card is divided by 32 points.

**Dimensions** Diameter of the compass card 98 mm.

**Provenance** Unknown

**Description** Circular wooden bowl in two parts with a glass cover, gimballed in a square wooden box with a sliding lid. The printed paper compass card is pivoted on a brass pin, it carries one heavy needle and has pieces of green wax on the back; it consists of two layers of paper, the bottom sheet is part of a page taken from lunar distance tables. The North point of the card is indicated by a fleur-de-lis; the East point is decorated by feathers.

**Note** Charles Sherman was active as an instrument maker in New Bedford from 1849-1865 thereafter adding '& Co'.

**Literature** Brewington, *The Peabody Museum Collection*, 139; Mörzer Bruyns, 'Trade Labels', 12.

**Obj. no.** 2001.100.2800

**Obj. name** Ship's tell-tale compass

**Origin** New Bedford, Massachusetts

**Maker** Charles R. Sherman

**Date** 1849-1865

**Inscriptions** Signed on the compass card 'C.R. Sherman, New Bedford.'

**Graduation** The compass card is divided by 64 points.

**Dimensions** Diameter of the compass card 131 mm.

**Provenance** KWM

**Description** Circular brass bowl with a glass cover and a cast bronze decorative suspension bracket. The printed paper compass card consists of two layers of paper, possibly separated by a sheet of mica; it carries one heavy needle. The North point of the card is indicated by a fleur-de-lis.

**Note** Charles Sherman worked for John Kehew (1818-1889) from 1849 to 1859; he succeeded to his business in 1865 and then associated with Wendell Macy to become '& Co'. This compass must date from before the association.

**Literature** Mörzner Bruyns, 'Trade Labels', 12; Brewington, *The Peabody Museum Collection*, 139.

**Obj. no.** 1991.13

**Obj. name** Dry-card boat compass

**Origin** New Bedford, Massachusetts

**Maker** Charles R. Sherman

**Date** 1849-1865

**Inscriptions** Signed on the compass card 'C.R. Sherman. New Bedford.'

**Graduation** The compass card is divided by 32 points.

**Dimensions** Diameter of the compass card 97 mm.

**Provenance** Acquired in 1991 from Lois B. Rhodes, given in memory of George E.M. Brownell.

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box with a sliding lid. The bowl is weighted by lead. The printed paper compass card consists of two layers of paper, separated by a sheet of mica. The bottom layer of paper is part of a page with printed advertisements, possibly for watches. The card is pivoted on a brass pin, and carries one heavy needle. The North point of the card is indicated by a fleur-de-lis; the East point is decorated by feathers. The front of the box has the remnants of a trade label for C.R. Sherman.

**Note** Charles Sherman worked for John Kehew (1818-1889) from 1849 to 1859; he succeeded to his business in 1865 and then associated with Wendell Macy to become '& Co'. This compass must date from before the association.

**Literature** Mörzner Bruyns, 'Trade Labels', 12; Brewington, *The Peabody Museum Collection*, 139.

**Obj. no.** 1992.48

**Obj. name** Dry-card boat compass

**Origin** New Bedford, Massachusetts

**Maker** John Kehew

**Date** About 1850

**Inscriptions** Signed on the compass card 'J. Kehew. New Bedford.'

**Graduation** The compass card is divided by 32 points

**Dimensions** Diameter of the compass card 97 mm.

**Provenance** Unknown

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box with a sliding lid. The bowl is weighted by lead. The printed paper compass card consists of two

layers of paper and is pivoted on a brass pin; it carries one heavy needle. The North point of the card is indicated by a fleur-de-lis; the East point by feathers.

**Note** John Kehew (1818-1889) set up a navigation store in New Bedford at 69 (later 49) North Water Street in 1839.

**Literature** Brewington, *The Peabody Museum Collection*, 131; Mörzner Bruyns 'Trade Labels', 12.

**Obj. no.** 1974.37

**Obj. name** Dry-card boat compass

**Origin** New Bedford, Massachusetts

**Maker** John Kehew

**Date** About 1850

**Inscriptions** Signed on the compass card 'J. Kehew. New Bedford.'

**Graduation** The compass card is divided by 32 points.

**Dimensions** Diameter of the compass card 97 mm.

**Provenance** Acquired in 1974 from Ms Merle E. Bridgham.

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box, painted blue on the outside; the sliding lid is missing. The bowl is weighted by lead. The printed paper compass card consists of two layers of paper separated by a sheet of mica; it is pivoted on a brass pin and carries one heavy needle and two pieces of blue wax. The North point of the card is indicated by a fleur-de-lis; the East point by feathers.

**Note** John Kehew (1818-1889) set up a navigation store at 69 (later 49) North Water Street in New Bedford in 1839. This compass is in use by the NBWM educational department.

**Literature** Brewington, *The Peabody Museum Collection*, 131; Mörzner Bruyns, 'Trade Labels', 12.

**Obj. no.** 2001.100.3906

**Obj. name** Dry-card boat compass

**Origin** Probably United States

**Maker** Unknown

**Date** About 1850

**Inscriptions** None

**Graduation** The compass card is divided by 64 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card 95 mm.

**Provenance** KWM

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box with sliding lid (missing). The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin and consists of two layers of paper probably separated by a sheet of mica. It carries one heavy needle, and a piece of red wax. The paper securing the needle on the back of the card (fixed by red wax) has become separated; it was re-used from a printed page, now indistinguishable. The North point of the card is indicated by a fleur-de-lis, the East point is decorated by feathers.

**Obj. no.** 2001.100.10285

**Obj. name** Ship's dry-card compass

**Origin** New Bedford, Massachusetts

**Maker** Charles Taber and Co

**Date** About 1850

**Inscriptions** Signed on the compass card 'Ch<sup>s</sup> Taber & C<sup>o</sup>. New-Bedford.'

**Graduation** The compass card is divided by 32 points and marked NE, W, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card 104 mm.

**Provenance** KWM

**Description** Circular brass bowl with a glass cover (jammed), gimballed in a square wooden box with a sliding lid. The bowl is weighted by lead. The printed paper compass card is pivoted on a brass point, and probably carries one heavy needle. The North point of the card is indicated by leaves and a compass needle. The box has the initials 'W B' scratched in on the front.

**Note** Charles Taber (1822-1887) was an 'importer and manufacturer' of octants and sextants at 45 Union Street, New Bedford, who associated with George W. Choate of New Bedford.

**Literature** Mörzer Bruyns, 'Trade Labels', 12, 16;

**Obj. no.** 1975.34.9

**Obj. name** Pocket compass

**Origin** New Bedford, Massachusetts

**Maker** Possibly John Kehew

**Date** About 1853

**Inscriptions** Signed on the compass card 'J. Kehew. New Bedford.'

**Graduation** The compass card is divided by 32 points, and in four quadrants to 1°

**Dimensions** Diameter of the compass card about 70 mm.

**Provenance** Acquired in 1975 from Mrs Elisabeth D. Belshaw.

**Description** Circular brass bowl with a glass cover, and a brass lid. The printed paper compass card probably consists of two layers of paper; it is pivoted on a brass pin and carries one heavy needle. The North and East points of the card are indicated by fleurs-de-lis. Inside the lid in ink in MS 'Ship | Syren Queen'.

**Note** Based on the text on the lid, the NBWM file records that this compass came from the Fairhaven whale ship *Syren Queen* (sailed 1853-1861). The bowl could not be opened for inspection. As with compass 00.126.1 Kehew's name is printed on a circular piece of paper that is stuck over the name of the original maker, around the centre of the card. John Kehew (1818-1889) set up a navigation store at 69 (later 49) North Water Street in New Bedford in 1839.

**Literature** Mörzer Bruyns, 'Trade Labels', 12; Brewington, *The Peabody Museum Collection*, 131.

**Obj. no.** 2001.100.3401

**Obj. name** Ship's dry-card compass

**Origin** New York, New York

**Maker** John Bliss and Co

**Date** About 1860

**Inscriptions** Signed on the compass card 'John Bliss & Co. New York.'

**Graduation** The compass card is divided by 64 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card 123 mm.

**Provenance** KWM

**Description** Circular brass bowl with a glass cover (glass cracked), gimballed in a square wooden box with a sliding lid (missing). The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin and consists of two layers of paper (the bottom sheet is light blue), separated by a sheet of mica. It carries one heavy needle, and two pieces of green

wax. The North point of the card is indicated by a fleur-de-lis. Two wooden suspension arms have been attached to two sides of the box, possibly in the NBWM for exhibition purposes.

**Note** John Bliss and Co were active in New York after 1845.

**Literature** Brewington, *The Peabody Museum Collection*, 119.

**Obj. no.** 2001.100.3905

**Obj. name** Ship's dry-card compass

**Origin** Boston, Massachusetts

**Maker** Frederick W. Lincoln Junior and Co

**Date** About 1860

**Inscriptions** Signed on the compass card '\* F.W. Lincoln J<sup>r</sup> & C<sup>o</sup>. \* Boston. Mass.'

**Graduation** The compass card is divided by 128 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card about 130 mm.

**Provenance** KWM

**Description** Circular brass bowl with a glass cover (jammed), gimballed in a square wooden box with a sliding lid. The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin, and probably carries one heavy needle. The North point of the card is indicated by a fleur-de-lis. The lid has a painted US flag with (thirty stars).

**Note** The American flag had thirty stars between July 1848 and July 1851, but the firm of Frederick Lincoln Jnr and Co is from 1858 onwards. This could suggest that the compass rose is not original to this compass.

**Literature** Mörzer Bruyns, 'Trade Labels', 5.

**Obj. no.** 2001.100.3111

**Obj. name** Dry-card boat compass in a binnacle

**Origin** New Bedford, Massachusetts

**Maker** Possibly Charles R. Sherman and Co

**Date** After 1865

**Inscriptions** Signed on the compass card '☼ C.S. Sherman & C<sup>o</sup> ☼ New Bedford'

**Graduation** The compass card is divided by 32 points and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card about 90 mm.

**Provenance** KWM

**Description** Circular brass bowl with a glass cover (jammed), gimballed in a mahogany binnacle. The bowl is weighted by lead. The printed paper compass card probably consists of two layers of paper, probably separated by a sheet of mica, and probably carries one heavy needle. The North point of the card is indicated by a fleur-de-lis, the East point by feathers. The binnacle is fitted with an oil lamp for illumination of the compass; it has two brass carrying handles and a hinged glass window.

**Note** The compass bowl could not be opened for inspection. Sherman's name has been printed on a circular piece of paper, stuck around the centre of the compass card, probably over the name of the original manufacturer of the compass (for this see also compasses 1975.34.9 and 00.126.1). Charles Sherman's association with Wendell Macy to become '& Co' dates from 1865.

**Literature** Brewington, *The Peabody Museum Collection*, 139; Mörzer Bruyns, 'Trade Labels', 12.

**Obj. no.** 00.220.7

**Obj. name** Ship's dry-card compass

**Origin** New York, New York

**Maker** Robert Merrill and Sons

**Date** About 1869

**Inscriptions** Signed on the compass card ‘☼ Rober<sup>t</sup> Merrill & Sons ☼ New York’

**Graduation** The compass card is divided by 64 points.

**Dimensions** Diameter of the compass card 99 mm.

**Provenance** Unknown

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box with a sliding lid (missing). The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin; it carries one heavy needle (badly rusted), and has pieces of green wax on the back. The card consists of two layers of paper separated by a sheet of mica; the bottom sheet is dark blue paper. The needle is held in place by what could be part of a playing card. The North point of the card is indicated by a fleur-de-lis.

**Note** The needle is badly corroded and needs conservation. Robert Merrill and Sons were active as an instrument makers in New York from 1869 onwards.

**Literature** Brewington, *The Peabody Museum Collection*, 135-136.

**Obj. no.** 00.126.3

**Obj. name** Ship’s dry-card compass

**Origin** New York, New York

**Maker** Robert Merrill and Sons

**Date** About 1870

**Inscriptions** Signed on the compass card ‘Robert Merrill & Sons New York’

**Graduation** The compass card is divided by 128 points.

**Dimensions** Diameter of the compass card about 175 mm.

**Provenance** Unknown

**Description** Circular cast bronze bowl painted black with a glass cover and a glass bottom, in a gimbal. The printed silk compass card is stuck on mica; it is pivoted on a brass pin and carries one heavy needle. The North point of the card is indicated by an elaborate fleur-de-lis.

**Note** The bowl could not be opened for inspection. Robert Merrill and Sons were active as instrument makers in New York from 1869 onwards.

**Literature** Brewington, *The Peabody Museum Collection*, 135-136.

**Obj. no.** 00.37

**Obj. name** Ship’s dry-card bearing compass in a binnacle

**Origin** Glasgow, Scotland

**Maker** James Whyte

**Date** About 1870

**Inscriptions** Signed on the compass card ‘\* James Whyte Successor to David Heron \* adjuster of compasses Glasgow’; Marked on the compass card on a stuck-on circular piece of paper within Whyte’s signature ‘\* T.S. & J.D. Negus \* New-York’; signed on a brass plate on the front of the binnacle ‘James Whyte | David Heron | Glasgow’

**Graduation** The compass card is divided by 32 points, and marked NE, E, SE, S, SW, W, NW, and in two parts of 180° by 1°.

**Dimensions** Diameter of the compass card 267 mm (10½"); total height of the instrument about 120 cm.

**Provenance** Captain Horace Perry Smith.

**Description** Circular brass bowl with a glass cover, gimballed in a polished brass binnacle. The cover does not fit over the bowl, and may be from a different instrument; it is fitted with two sights, one with a slit the other with a thread. The printed paper compass card is pivoted

on a brass pin, and carries two heavy needles. It consists of two layers of paper separated by a sheet of mica. The North point of the card is indicated by a fleur-de-lis. The binnacle has one window with a hinged lid and a looking hole with a sliding lid (damaged); it is placed on three cast brass dolphin feet, that can be secured to a ship's deck by screws. There are two oil lamps for illuminating the compass card, and polished brass containers on either side containing iron for compensating for the ship's magnetism. There are two brass rings on either side of the binnacle (at the bottom), for securing it to a ship's deck by ropes.

**Note** According to the NBWM file this compass came from Captain Horace Perry Smith, master of the New Bedford whaling bark *Josephine* (from 1903-1907); she was built in Bath, ME in 1877 and sold in 1909. Smith was her one-but-last master. This type dolphin-feet binnacle was probably made by Heath and Co in London. Negus will have imported the compass from Heath and/or Whyte. For display purposes the NBWM has had electric light fitted in the binnacle. In 1864 James Whyte married David Heron's daughter Jessie; the firm's name became Whyte and Co about 1875.

**Literature** Clarke *et al*, *Brass & Glass*, 283-285; Brewington, *The Peabody Museum Collection*, 136; American Offshore Whaling Voyages database.

**Obj. no.** 00.126.7

**Obj. name** Ship's liquid-compass in a binnacle

**Origin** Boston, Massachusetts

**Maker** Edmund Samuel Ritchie

**Date** About 1877

**Inscriptions** Signed on the compass card 'Ritchie Boston'.

**Graduation** The compass card is divided by 64 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions**

**Provenance** J. and W. Wing.

**Description** Circular brass bowl with a glass cover, gimballed in a polished brass binnacle. The compass card is printed on artificial material and pivoted on a brass pin. The needle float is in the form of crossed cylinders, the earliest type that was made by Ritchie, and described in his patent granted on April 7, 1863. The North point of the card is indicated by a fleur-de-lis. The binnacle is placed on three cast brass dolphin feet, that can be secured to a ship's deck by screws. It holds two oil lamps, but no compensation for ship's magnetism.

**Note** This compass is from the New Bedford whaling bark *Josephine* (built in Bath, ME, in 1877), Captain Horace Perry Smith (her master from 1903-1907); it was presented to the NBWM by the firm of J. and W. Wing, which had owned the bark. It is on display and was not taken from its binnacle for inspection. This type dolphin-feet binnacle was probably made by Heath and Co in London.

**Literature** Warner, 'Compasses and Coils'; Brewington, *The Peabody Museum Collection*, 137-138; American Offshore Whaling Voyages database.

**Obj. no.** 2001.100.4050

**Obj. name** Ship's dry-card compass

**Origin** Probably United States

**Maker** Unknown

**Date** About 1878

**Inscriptions** None

**Graduation** The compass card is divided by 64 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card 175 mm.

**Provenance** KWM, donated in 1992 by Dr Lothar R. Landers of Avon, CT.

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box with a sliding lid. The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin and consists of two layers of paper, separated by a sheet of mica; it carries one heavy needle. The North point of the card is indicated by a fleur-de-lis. On the lid of the box in pencil 'BK | Wanderer'.

**Note** According to the NBWM file this compass was made by Charles R. Sherman of New Bedford. There is, however, nothing on the compass to substantiate this. It came from the wreck of the whaling bark *Wanderer*, built in 1878 and lost in 1924.

**Obj. no.** 00.126.11

**Obj. name** Liquid boat compass in a binnacle

**Origin** Boston, Massachusetts

**Maker** D. Baker

**Date** About 1880

**Inscriptions** Signed and marked below the compass card on the bottom of the bowl 'D. Baker Boston | Pat.d Nov 3, 1874 June 1, 1875' ; Marked on the bowl and on the gimbal '3300' ; marked on the oil lamps '7' [port] and '8' [starboard]

**Graduation** The compass card is divided by 64 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card about 100 mm.

**Provenance** Unknown

**Description** Circular cast bronze bowl with a glass cover, gimballed in a brass binnacle. The bowl is weighted by bronze. The compass card is printed on artificial material, and carries one heavy needle. The North point of the card is indicated by a flower flanked by two small fleurs-de-lis. The foot (pedestal) of the binnacle is ornate, and can be secured to a ship's deck by screws; the bulbous binnacle has one glass window and two whale-oil lamps. One of the three screws for securing the binnacle to its foot is missing.

**Note** The compass bowl could not be opened for inspection.

**Obj. no.** 2001.100.3123

**Obj. name** Liquid boat compass in a binnacle

**Origin** Boston, Massachusetts

**Maker** Edmund Samuel Ritchie and Sons

**Date** 1891

**Inscriptions** Signed on the compass card 'Ritchie Boston U.S.A.' ; signed and marked on the rim of the bowl 'Ritchie Boston.'; 'Patented Apr. 10 1866'; '19285'

**Graduation** The compass card is divided by 64 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card about 82 mm (3").

**Provenance** KWM

**Description** Circular cast bronze bowl with a glass cover, gimballed in a binnacle. The bowl is weighted by lead. The number and nature for the needle(s) could not be established. The North point of the printed compass card is indicated by a fleur-de-lis. The mahogany binnacle has a hinged glass lid and a brass carrying handle. Two brass-lidded holes on either side of the box are probably for attaching iron for compensation; an oil lamp is missing from the back of the binnacle. The text on a cast brass plate on the front of the box reads 'Gas Engine and Power | Morris Heights | New York city'.

**Note** The compass bowl could not be opened for inspection. On the basis of its serial number 19285 this compass was completed on 6 August 1891 for Negus, New York.

**Literature** Warner, 'Compasses and Coils.'; information from the Ritchie archive communicated (July 2012) by Cristin Dixon of Ritchie Navigation, Pembroke, MA.

**Obj. no.** 1916.36.9.3

**Obj. name** Dry-card boat compass

**Origin** Probably United States

**Maker** Unknown

**Date** About 1896

**Inscriptions** None

**Graduation** The compass card is divided by 64 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card about 70 mm.

**Provenance** Unknown

**Description** Circular brass bowl with a glass cover (stuck), gimballed in a square wooden box (damaged) with a sliding lid. The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin and probably consist of two layers of paper; it probably carries one heavy needle. The North point of the card is indicated by a fleur-de-lis. Inside the box in MS pencil 'May 1896', and it contains a piece of paper with in MS ballpoint 'Edw. Parshley, | 377 Quinnipiac Ave | North Haven, Conn'

**Obj. no.** 1916.36.9.2

**Obj. name** Dry-card boat compass

**Origin** Probably United States

**Maker** Unknown

**Date** About 1900

**Inscriptions** None

**Graduation** The compass card is divided by 64 points, marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card 76 mm.

**Provenance** Unknown

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box with a sliding lid. The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin and consists of two layers of paper (the bottom sheet is light blue), separated by a sheet of mica. It carries one heavy needle, and two pieces of red wax. The North point of the card is indicated by a fleur-de-lis.

**Note** Very similar to compasses 1916.36.9.1 and 1916.36.9.4

**Obj. no.** 1916.36.9.4

**Obj. name** Dry-card boat compass

**Origin** Probably United States

**Maker** Unknown

**Date** About 1900

**Inscriptions** None

**Graduation** The compass card is divided by 64 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card 76 mm.

**Provenance** Unknown

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box with a sliding lid. The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin and consists of two layers of paper (the bottom sheet is light blue), separated by a

sheet of mica. It carries one heavy needle and four pieces of red wax. The North point of the card is indicated by a fleur-de-lis.

**Note** Very similar to compasses 1916.36.9.1 and 1916.36.9.2.

**Obj. no.** 1916.36.9.1

**Obj. name** Dry-card boat compass

**Origin** Probably United States

**Maker** Unknown

**Date** About 1900

**Inscriptions** None

**Graduation** The compass card is divided by 32 points, and marked NE, E, SE, S, SW, W, NW.

**Dimensions** Diameter of the compass card 78 mm.

**Provenance** Unknown

**Description** Circular brass bowl with a glass cover, gimballed in a square wooden box with a sliding lid. The bowl is weighted by lead. The printed paper compass card is pivoted on a brass pin and consists of two pieces of paper (the bottom sheet is light blue). It carries one heavy needle and two pieces of black wax. The North point of the card is indicated by a fleur-de-lis.

**Note** Very similar to compasses 1916.36.9.2 and 1916.36.9.4.

**Obj. no.** 2001.100.3125.1

**Obj. name** Brackets

**Origin** Unknown

**Maker** Unknown

**Date** Twentieth century

**Inscriptions** None

**Dimensions** Length 171 mm.

**Provenance** KWM

**Description** Two brass wall brackets for holding a gimballed compass. No compass found.

**Note** The brackets may have been made in for exhibiting a compass.

**Obj. no.** 2001.100.430

**Obj. name** Toy compass

**Origin** Probably United States

**Maker** Unknown

**Date** Twentieth century

**Inscriptions** None

**Graduation** The compass rose is divided by 16 points marked N, E, S, W, and in sections of 9°.

**Dimensions** Diameter of the compass is 10 mm.

**Provenance** KWM

**Description** Miniature compass in a cube-shaped whalebone box with a hinged lid. The compass rose is stuck in the bottom of the box; one needle.

**Note** This instrument has no significance to navigation, it must have been (part of) a toy.

**Obj. no.** 2003.85.1

**Obj. name** Liquid dory compass

**Origin** Boston, Massachusetts

**Maker** Edmund Samuel Ritchie and Sons

**Date** 1916

**Inscriptions** Signed on the compass card 'Ritchie Boston USA'; signed and marked on the rim of the bowl 'E.S. Ritchie & Sons' | '44779' | 'Boston'

**Graduation** The compass card is divided by 128 points and marked NE, E, SE, S, SW, W, NW, and in 360° by 1°.

**Dimensions** Diameter of the compass card about 80 mm (3").

**Provenance** Acquired in 2003.

**Description** Circular cast bronze bowl painted black, with a glass cover, gimballed in a square wooden box with a lid. The bowl is weighted by lead or bronze and has a plug for (re)filling it with liquid. The printed compass card is pivoted on a pin, the needle(s) were not seen. The North point of the card is indicated by a fleur-de-lis.

**Note** The bowl could not be opened for inspection; the liquid has been removed. On the basis of its serial number 44779 this compass was completed on 13 March 1916 for Briggs and Beckman. In 1905 James C. Briggs and Charles Emil Beckmann formed a firm of shipping suppliers at 31-35 Commercial Street, New Bedford. According to the NBWM file this compass belonged to Captain George W. Slocum of the *American*, probably the captain Slocum who lived 1818-1889, and who thus cannot have owned this compass.

**Literature** Warner, 'Compasses and Coils'; Brewington, *The Peabody Museum Collection*, 137-138; information from the Ritchie archive communicated (July 2012) by Cristin Dixon of Ritchie Navigation, Pembroke, MA.

**Obj. no.** 00.196.3

**Obj. name** Pelorus

**Origin** New York, New York

**Maker** T.S. and J.D. Negus

**Date** About 1920

**Inscriptions** Signed on the compass rose 'T.S. & J.D. Negus. New York'

**Graduation** The compass rose is divided by 32 points and marked NE, E, SE, S, SW, W, NW and by two concentric supplementary graduations in section from 0° to 180° by 1°.

**Dimensions** Diameter of the compass rose 215 mm.

**Provenance** Unknown

**Description** Aluminium compass rose rotating in a cast bronze disc that is weighted by lead and gimballed in a square wooden box with a lid. Two bearing sights rotate around the centre of the compass rose; one sight is threaded, the other has a sliding aperture disc with a shaded eyepiece (red). A bubble level is fitted at the pivot of the instrument, the North point of the compass rose is indicated by a fleur-de-lis.

**Literature** Brewington, *The Peabody Museum Collection*, 136.

**Obj. no.** 1994.1

**Obj. name** Ship's liquid compass

**Origin** Boston, Massachusetts

**Maker** Edmund Samuel Ritchie and Sons, Inc.

**Date** 1942

**Inscriptions** Signed on the compass card 'Ritchie Boston USA | Ritchie | Boston'; signed and marked on the rim of the bowl 'E.S. Ritchie & Sons | Inc.'; '97577'; 'Boston'

**Graduation** The card is divided by 128 points and marked NE, E, SE, S, SW, W, NW, and in 360° by 1°.

**Dimensions** Diameter of the compass card about 135 mm (6").

**Provenance** Acquired in 1994 from Frank W. Fraits.

**Description** Circular cast bronze bowl painted black, with a glass cover, gimballed in a square wooden box painted grey; the lid is missing. The bowl is weighted by lead. The printed compass card is pivoted on a pin; four needles in watertight casings are attached to the float. The North point of the card is indicated by a fleur-de-lis.

**Note** According to the NBWM file this compass was used on the New Bedford fishing vessel *Angeline*. The bowl could not be opened for inspection. On the basis of its serial number 97577 this compass was completed on 7 July 1942 for T.S. and J.D. Negus in New York.

**Literature** Warner, 'Compasses and Coils'; Brewington, *The Peabody Museum Collection*, 137-138; information from the Ritchie archive communicated (July 2012) by Cristin Dixon of Ritchie Navigation, Pembroke, MA.

**Obj. no.** 1994.14

**Obj. name** Ship's liquid compass

**Origin** Boston, Massachusetts

**Maker** Edmund Samuel Ritchie and Sons, Inc.

**Date** 1957

**Inscriptions** Signed on the compass card 'Ritchie Boston'; 'Ritchie | Pembroke | Mass.'; Marked on the rim of the bowl '114268'

**Graduation** The compass card is divided by 128 points and marked NE, E, SE, S, SW, W, NW, and in 360° by 1°.

**Dimensions** Diameter of the compass card about 153 mm (6").

**Provenance** Acquired in 1994 from Paul Saunders.

**Description** Circular cast bronze bowl painted black, with a glass cover, gimballed in a square wooden box painted brown (flaked); the lid is missing. The bowl is weighted by lead. The printed compass card is pivoted on a pin; four needles in watertight casings are attached to the float. The North point of the card is indicated by a fleur-de-lis.

**Note** The bowl could not be opened for inspection. Ritchie moved to Pembroke, MA, in 1951, when it was taken over by the owners of the Marine Compass Company. On the basis of its serial number 114268 this compass was completed on 23 January 1957 for Standard Hardware Co. Inc. The fact that 'Boston' is inscribed on the ring might suggest that this compass was made before Ritchie moved to Pembroke.

**Literature** Warner, 'Compasses and Coils'; Brewington, *The Peabody Museum Collection*, 137-138; information from the Ritchie archive communicated (July 2012) by Cristin Dixon of Ritchie Navigation, Pembroke, MA.

### Surveyor's Compasses

**Obj. no.** 2001.100.3131

**Obj. name** Surveyor's compass

**Origin** Boston, Massachusetts

**Maker** Possibly John Dupee

**Date** About 1750

**Inscriptions** Signed on the compass rose 'Made and Sold by J.[obliterated] near ye Draw=Bridge in Boston'

**Graduation** The compass rose is divided by 32 points, and in four quadrants to 1°.

**Dimensions** Diameter of the compass rose about 123 mm.

**Provenance** KWM

**Description** Flat circular wooden box with a glass cover (probably a later replacement), two arms extending from the North and South points, and two detachable wooden threaded sight vanes (threads missing); it has a stuck-in printed paper compass rose, and a long needle. The

North point of the compass rose is indicated by a fleur-de-lis; the East point is decorated by two accolades, the centre is decorated by a crown.

**Note** According to the NBWM file this compass was made by James Halsey of Boston, but there is no indication that Halsey worked near the Drawbridge in Boston. William Hagger worked at that Drawbridge, but his name does not fit in the obliterated part. John Dupee worked near the Swing-bridge in Boston, and his name could fit in the obliterated part. Two compasses (one a surveyor's) by Dupee are preserved in the Peabody Essex Museum, Salem, MA (M21502 and M14036).

**Literature** Brewington, *The Peabody Museum Collection*, 125, 128; Mörzer Bruyns, 'Navigating Instruments Acquired by the Peabody Essex Museum', 75, 87-88;  
[www.surveyhistory.org](http://www.surveyhistory.org)

**Obj. no.** 1978.11

**Obj. name** Surveyor's compass

**Origin** London, England

**Maker** Spencer and Co

**Date** About 1820

**Inscriptions** Signed on the compass rose 'Spencer & Comp.<sup>y</sup> | London'

**Graduation** The compass rose is divided by 8 points, and marked N, NE, E, SE, S, SW, W, NW, and from 0° to 360° by 1°; the graduation runs from N to East, etc.

**Dimensions** Diameter of the compass rose about 111 mm.

**Provenance** Old Dartmouth Historical Society.

**Description** Flat circular brass box with a glass cover, two arms extending from the North and South points, and two detachable sights to be secured by winged screws. The brass compass rose and the graduation are silvered; one long needle with a locking device. In a fitted rectangular wooden box containing in the lid a trade label for John Kehew, 49 North Water Street, New Bedford (after 1839).

**Note** A similar not-dated surveyor's compass is listed in the Compass Makers Directory.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 12;  
[www.surveyhistory.org](http://www.surveyhistory.org)

**Obj. no.** 1927.28.68

**Obj. name** Surveyor's compass

**Origin** Easton, Massachusetts

**Maker** John and Horace Minot Pool

**Date** About 1825-1841

**Inscriptions** Signed on the compass rose 'J & H.M. Pool, | Easton, Mass.'

**Graduation** The compass rose is divided by 8 points, and marked NE, E, SE, SW, W, NW, and in four quadrants to 1°.

**Dimensions** Diameter of the compass rose about 52 mm.

**Provenance** Bequeathed by Anna Ricketson in 1927.

**Description** Circular brass bowl with a glass cover. The printed paper compass rose is fixed in the bottom of the bowl and a long needle with a locking device that is finger-operated from underneath the bowl. There are two pinhole sights at the bottom of the bowl, at either side, below the North and the South point of the compass rose. The North point of the card is indicated by a fleur-de-lis. In a circular tin box marked on the lid (lined with red velvet) 'Daniel Ricketson | New | Bedford | Mass. | 1844'. A similar text seems to have been stuck to the bottom of the box previously.

**Note** The Pool Brothers were associated from about 1825 to 1841. The NBWM collection also holds a hand-held telescope marked 'Daniel Ricketson | 1785' (00.220.1). Ricketson (1813-1898) was a writer who lived in New Bedford all his life.

**Literature** [www.surveyhistory.org](http://www.surveyhistory.org) ; [myweb.wvnet.edu](http://myweb.wvnet.edu) ; Wing, 'The Pool Family of Easton, Massachusetts'.

### Telescopes

**Obj. no.** 00.220.1

**Obj. name** Hand-held telescope

**Origin** United States | England

**Maker** Unknown

**Date** Last quarter eighteenth century

**Inscriptions** Marked on the ocular tube 'Ezra Chaffee' ; marked on the leather cover 'Daniel Ricketson | 1785'.

**Dimensions** Length 669 mm.

**Provenance** Possibly acquired from Henry A. Church.

**Description** Two-draw telescope, the wooden barrel is covered with leather (damaged and in poor condition) and has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade; a removable protective cap is missing from the objective lens.

**Note** Previous owners probably were father and son Ezra Chaffee. Ezra Chaffee (1764-1800), a mariner living in New Bedford in 1797; he died a sea captain in Batavia. His son Ezra Chaffee (1796-1838) was from New Bedford and later lived in Boston; he died at sea near Singapore in the *Ceylon*. Later owner Daniel Ricketson (1813-1898) was a writer who lived in New Bedford all his life. Surveyor's compass 1927.2868 also belonged to Ricketson.

**Literature** [myweb.wvnet.edu](http://myweb.wvnet.edu) ; William Henry Chaffee, *The Chaffee Genealogy, Embracing ...etc.* (Grafton Press, 1909) 152-153, 275.

**Obj. no.** 2001.100.102.00

**Obj. name** Telescope cap

**Origin** Unknown

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** None

**Dimensions** Diameter 72 mm.

**Provenance** KWM

**Description** A removable protective brass cap for the objective lens of a hand-held telescope.

**Obj. no.** 2001.100.3727

**Obj. name** Hand-held telescope

**Origin** Probably England

**Maker** Unknown

**Date** First half nineteenth century

**Inscriptions** None

**Dimensions** Length 358 mm.

**Provenance** KWM, Richard A. Bourne, Hyannis Port, MA.

**Description** Two-draw telescope, the mahogany barrel has brass fittings at both ends; the tubes are brass. The ocular and objective lenses have sliding dust shades.

**Obj. no.** 2001.100.2823

**Obj. name** Hand-held telescope

**Origin** Probably England

**Maker** Unknown

**Date** First half nineteenth century

**Inscriptions** None

**Dimensions** Length 345 mm.

**Provenance** KWM

**Description** Two-draw telescope, the wooden barrel has brass fittings at both ends; the tube is brass. The ocular and objective lenses have sliding dust shades.

**Obj. no.** 2001.100.3726

**Obj. name** Hand-held telescope

**Origin** Probably England

**Maker** Unknown

**Date** First half nineteenth century

**Inscriptions** None

**Dimensions** Length 345 mm.

**Provenance** KWM, Richard A. Bourne Co., Hyannis Port, MA.

**Description** Two-draw telescope, the eight-sided mahogany barrel has brass fittings at both ends; the tube is brass. The ocular and objective lenses have sliding dust shades.

**Obj. no.** 2001.100.3728

**Obj. name** Hand-held telescope

**Origin** Probably England

**Maker** Unknown

**Date** First half nineteenth century

**Inscriptions** Crudely scratched on the barrel 'L. W'

**Dimensions** Length 345 mm.

**Provenance** KWM, Richard A. Bourne Co., Hyannis Port, MA.

**Description** Two-draw telescope, the eight-sided mahogany barrel has brass fittings at both ends; the tube is brass. The ocular and objective lenses have sliding dust shades.

**Obj. no.** 00.220.4

**Obj. name** Hand-held telescope

**Origin** Probably England

**Maker** Unknown

**Date** First half nineteenth century

**Inscriptions** None

**Dimensions** Length 332 mm.

**Provenance** Unknown

**Description** Two-draw telescope, the eight-sided mahogany barrel has brass fittings at both ends (the fitting at the objective end is missing); the tube is brass. The ocular lens has a sliding dust shade. A paper label stuck on the barrel has in MS 'Loan W.A. Wing | 6/3 1936'.

**Obj. no.** 2001.100.2810

**Obj. name** Hand-held telescope

**Origin** Probably England

**Maker** Unknown

**Date** First half nineteenth century

**Inscriptions** None

**Dimensions** Length 958 mm.

**Provenance** KWM

**Description** Two-draw telescope, the wooden barrel is covered with black-painted sailcloth, and has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade

**Obj. no.** 1971.9.13

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Possibly Haris and Son

**Date** About 1810

**Inscriptions** Signed on the ocular tube 'Haris & Son. | London | Day or Night'

**Dimensions** Length 639 mm.

**Provenance** Acquired in 1971 from Mrs Lyle R. Mucrillus.

**Description** Two-draw telescope, the barrel is covered with leather, and has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade; there is a brass tube that slides off the objective end of the barrel that serves as a shade.

**Note** According to the NBWM file this telescope was owned by William and Peleg Sanford. No instrument maker by the name of Haris is on record, it may have been an engravers error for Harris and Son, opticians at Fleet Street, London about 1805.

**Literature** Clifton, *Directory*, 126 (for Harris).

**Obj. no.** 2001.100.3057

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Possibly Daniel and Jones

**Date** About 1832

**Inscriptions** Signed on the ocular tube 'Daniel & Jones | Day or Night | London'

**Dimensions** Length 513 mm.

**Provenance** KWM

**Description** Two-draw telescope, the brass barrel is covered with sailcloth painted green, and has brass fittings at both ends; the tube is brass. The ocular end has a sliding brass dust cover; there is a brass tube that slides off the objective end, with a sliding brass shutter.

A piece of paper stuck on the barrel has in MS 'Capt Jonathan | Haffords | Spy Glass 1832 | Ship John Howland'

**Note** Captain Jonathan Haffords was master of the New Bedford whale ship *John Howland* (from 1832-1836). The NBWM file records this telescope as originating from Captain William H. Whitfield, master of the *John Howland* (from 1839-1843). Haffords may have left his telescope on the *John Howland*, or given it to Whitfield, who became famous for saving Japanese fishermen. Nothing was found on Daniel and Jones who were probably not the makers but the retailers of this telescope.

**Literature** American Offshore Whaling Voyages database.

**Obj. no.** 1983.45.14

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Possibly Coppendale and Co

**Date** About 1840

**Inscriptions** Signed on the ocular tube 'Coppendale & C<sup>o</sup> | N<sup>o</sup> 1 Crown Court Tudor St<sup>t</sup> | London'

**Dimensions** Length 248 mm.

**Provenance** Acquired in 1983 from Mercator Cooper Kendrick, Southampton, NY.

**Description** Four-draw telescope, the wooden barrel is covered with painted sailcloth and has brass fittings at both ends; the tubes are brass. The ocular lens has a sliding dust shade; the objective lens is cracked.

**Note** According to the NBWM file this telescope may have been used by Captain Mercator Cooper (1803-1872), master of the whale ships *Phenix* (from 1832-1838), *American* (from 1840-1843), *Manhattan* (from 1843-1846), and *Levant* (from 1851-1855), all from Sag Harbor, NY. Nothing was found on Coppendale and Co, who were probably not the makers, but the retailers of this telescope.

**Literature** American Offshore Whaling Voyages database.

**Obj. no.** 1963.1.8

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** (George) Dollond

**Date** About 1840

**Inscriptions** Signed on the ocular tube ‘Dollond London | Imp<sup>d</sup> Day or Night’

**Dimensions** Length 382 mm.

**Provenance** Acquired in 1963 from George Bricknell.

**Description** Three-draw telescope, the wooden barrel has brass fittings at both ends; the tubes are brass. The ocular lens has a sliding dust shade; the objective lens has a removable protective brass cap with a sliding dust shade, and a brass tube that slides off the end of the barrel and serves as a shade.

**Literature** Clifton, *Directory*, 86.

**Obj. no.** 1983.45.12

**Obj. name** Hand-held telescope

**Origin** Probably United States

**Maker** Unknown

**Date** About 1840

**Inscriptions** Marked on the tube shade at the objective end ‘U.S. Navy | ® 12824’

**Dimensions** Length 504 mm.

**Provenance** Acquired in 1983 from Mercator Cooper Kendrick, Southampton, NY.

**Description** Two-draw telescope, the barrel is covered with leather and has brass fittings at both ends; the tube is brass. The ocular and objective lenses have sliding dust shades (the ocular shade is missing); the objective dust shade is fixed on a brass tube that slides off the end of the barrel and serves as a shade.

**Note** According to the NBWM file this telescope was probably used on the New Bedford whale ship *Manhattan* of which Captain Mercator Cooper was master (from 1843-1846), whereby the U.S. Navy number remains unexplained.

**Obj. no.** 1988.53

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1840

**Inscriptions** Signed on the ocular tube ‘Spencer, Browning & C<sup>o</sup> | London | Day or Night’

**Dimensions** Length 532 mm.

**Provenance** Acquired in 1988 from Rodman Snow Moeller (†2012), Roanoke, VA.

**Description** Two-draw telescope, the barrel is covered with leather (damaged, the stitching has gone), and has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade; the objective lens has a removable protective brass cap.

**Note** The donor was a descendent of Loum Snow who may have been the original owner of this telescope. There were four successive generations named Loum Snow (1779-1822); (1810-1871); (\*1840); (\*1865), all from New Bedford and all in whaling and later in shipping. The second generation was most probably the original owner. Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 21; *Representative men and old families from South-eastern Massachusetts*. (J.H. de Beers & Co Chicago, 1912) vol. III, 1438-1439.

**Obj. no.** 1991.46.2

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Possibly Benjamin Osborne

**Date** About 1850

**Inscriptions** Signed on the ocular tube 'Osborne | Day or Night | London'

**Dimensions** Length 285 mm.

**Provenance** Acquired in 1991 from John Lincoln Steele, London, England.

**Description** Three-draw telescope, with a brass barrel and tubes. The ocular and objective lenses have sliding dust shades. The barrel was probably once covered with leather, wood or sailcloth.

**Note** According to the NBWM file this telescope belonged to Captain James Lawrence Lincoln, master of the New Bedford whaling bark *Elisha Dunbar* (from 1854-1862).

Benjamin Osborne was an optician working in London from 1838 to 1871. If he is the person whose name is on the tube, he most likely was not the maker but the retailer of the instrument.

**Literature** Information communicated by Dr Gloria Clifton, formerly NMM, Greenwich; American Offshore Whaling Voyages database.

**Obj. no.** 00.2205

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1850

**Inscriptions** Signed on the ocular tube 'Spencer, Browning & C<sup>o</sup> | London'

**Dimensions** Length 623 mm.

**Provenance** Unknown

**Description** Two-draw telescope, the barrel is covered with leather (damaged and in poor condition) and has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade (missing); a removable protective cap is missing from the objective lens.

**Note** Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 21.

**Obj. no.** 1957.2.2

**Obj. name** Hand-held telescope

**Origin** Probably England

**Maker** Unknown

**Date** About 1850

**Inscriptions** None

**Dimensions** Length 500 mm.

**Provenance** Acquired in 1957 from Miss Edith P. Wallen.

**Description** Two-draw telescope, the mahogany barrel has brass fittings at both ends; the tube is brass. The ocular and objective lenses have sliding dust shades.

**Obj. no.** 1973.29.2

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Spencer, Browning and Rust

**Date** About 1850

**Inscriptions** Signed on the ocular tube 'Spencer Browning & Rust | London | Day or Night'

**Dimensions** Length 524 mm.

**Provenance** Acquired in 1973 from Mrs John M. Wade.

**Description** Two-draw telescope, the wooden barrel is covered with black-painted sailcloth, and has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade (missing).

**Note** According to the NBWM file this telescope belonged to L.C. Tripp. Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 21.

**Obj. no.** 1981.25

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1850

**Inscriptions** Signed on the ocular tube 'Spencer Browning & C<sup>o</sup> | London | Day or Night'

**Dimensions** Length 522 mm.

**Provenance** Acquired in 1981 from Herbert B. Barlow.

**Description** Two-draw telescope, the brass barrel has brass fittings at both ends and was once covered with wood, leather or sailcloth; the tube is brass. The ocular end has a sliding dust shade; the objective end has a brass tube that slides off and serves as a shade.

**Note** According to the donor this telescope was used by Captain Nye Barlow of the *Swan* of New Bedford. A Captain Barlow was found as master of the New Bedford whale ship *Swan* (from 1796-1797), but as this predates the telescope the information provided by the donor must be doubted. Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 21; American Offshore Whaling Voyages database.

**Obj. no.** 1976.18

**Obj. name** Hand-held telescope

**Origin** London, England

**Maker** Spencer, Browning and Co

**Date** About 1855

**Inscriptions** Signed on the ocular tube 'Spencer, Browning & C<sup>o</sup> | London. | Day or night'

**Dimensions** Length 522 mm.

**Provenance** Acquired in 1976 from Mr and Mrs George F. Castino.

**Description** Two-draw telescope, the barrel is covered with leather (worn, the stitching has gone) and has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade; the objective lens has a removable protective brass cap.

**Note** According to the NBWM file this telescope belonged to Captain John A. Castino, master of the New Bedford whale ships *Congress* (from 1859-1867) and *Governor Troup* (from 1868-1872). Spencer, Browning and Co were probably active between about 1840 and 1870.

**Literature** Clifton, *Directory*, 261; Mörzer Bruyns, 'Trade Labels', 21; American Offshore Whaling Voyages database.

**Obj. no.** 2001.100.3128

**Obj. name** Hand-held telescope

**Origin** Sheffield or London, England

**Maker** J.P. Cutts, Sutton and Son

**Date** About 1860

**Inscriptions** Signed on the ocular draw tube 'J.P. Cutts Sutton & Son, | Opticians to Her Majesty | Sheffield & London'

**Dimensions** Length 519 mm.

**Provenance** KWM

**Description** Two-draw telescope; the wooden barrel is covered with leather; a table of 'Flags and Pennant in Merchant Service' is fitted in a rectangular cut-out part of the leather. The barrel has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade; the objective end has a removable brass cap with a sliding dust shade, and a brass tube that slides off and serves as a shade.

**Note** A telescope by I.P. Cutts Sons and Sutton, and another possibly also by them, are preserved in the Peabody Essex Museum, Salem, MA (M5801 and M20742).

**Literature** Brewington, *The Peabody Museum Collection*, 103, 123; Mörzer Bruyns, 'Navigating Instruments Acquired by the Peabody Essex Museum', 89; Clifton, *Directory*, 75.

**Obj. no.** 2001.100.3110

**Obj. name** Hand-held telescope

**Origin** England

**Maker** Unknown

**Date** About 1860

**Inscriptions** Marked on the ocular draw tube 'L. Dixey | 21, King's Road | Brighton'

**Dimensions** Length 820 mm.

**Provenance** KWM

**Description** Two-draw conical telescope with a brass barrel and tube, in the shape of a walking stick. The ocular end of the telescope has a screwed-on iron-tipped end of the walking stick. The objective end of the telescope has a screwed-on brass walking stick knob.

**Note** According to the *Mechanics Magazine* Lewis Dixey was an optician at 21 King's Street in Brighton, according to Clifton, *Directory*, at no. 62, from 1843 to 1845. It is unlikely that Lewis Dixey was the maker of this telescope. His father was George Dixey, optician and telescope maker in London.

**Literature** *The Mechanics Magazine*, vol. 8 (October 1862), p. 252; Clifton, *Directory*, 85.

**Obj. no.** 1965.102.3

**Obj. name** Hand-held telescope

**Origin** Liverpool, England

**Maker** William Gerrard

**Date** About 1863

**Inscriptions** Signed on the ocular tube 'W<sup>m</sup> Gerrard, | Liverpool.'

**Dimensions** Length 524 mm.

**Provenance** Acquired in 1965 from William E. White.

**Description** Two-draw telescope, the barrel is covered with green-painted sailcloth; a table of 'Flags & Pennants in Merchant Service' is fitted in a rectangular cut-out part of the sailcloth. The barrel has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade; a brass tube sliding off the objective end of the barrel serves as a shade. The ocular end of the tube is inscribed 'Presented to | Capt<sup>d</sup> AA.C. Mosemann, | by the officers of the "Fanny Lewis", | as a token of respect and satisfaction for the | successful running of the Blockade , | from Wilmington to Liverpool | March 24, 1863'

**Note** The table of flags includes the 'Red Ensign', which became the official flag for the British merchant service in 1854. William Gerrard was active 1862-1890.

**Literature** Mörzner Bruyns, *Sextants at Greenwich*, 210, 274.

**Obj. no.** 2001.100.3080

**Obj. name** Hand-held telescope

**Origin** New York, New York

**Maker** Thomas S. Negus

**Date** About 1865

**Inscriptions** Signed on the ocular tube 'T. S. Negus & C<sup>o</sup> | New York' ; Marked 'John S. Davis, | April 1870'

**Dimensions** Length 568 mm.

**Provenance** KWM

**Description** Two-draw telescope, the barrel is covered with leather and has brass fittings at both ends; the tube is brass. The ocular lens has a sliding dust shade; the objective lens has a removable protective brass cap with a sliding dust shade, and a brass tube that slides off the end of the barrel and serves as a shade. The leather cover has two loops for attaching a carrying strap.

**Note** Thomas S. Negus added '& Co' to his name in 1864; in 1869 the firm became T.S. & J.D. Negus, so that this instrument must have been made before 1864. John S. Davis will have been an owner.

**Literature** Brewington, *The Peabody Museum Collection*, 136.

### Marine Chronometers

**Obj. no.** 1991.35

**Obj. name** Dial of a chronometer

**Origin** Liverpool, England

**Maker** Litherland, Davies and Co

**Date** About 1837

**Inscriptions** Signed and marked on the dial 'Litherland Davis & C<sup>o</sup> | Liverpool | 412 | 13543' ; Stamped on the back 'LD & C<sup>o</sup> | 412 | 13543'

**Graduation** Dial from I to XII by 1 minute, seconds to 60 by 1 second.

**Dimensions** Diameter 86 mm.

**Provenance** Acquired in 1991 from Richard L. Ketchen.

**Description** Silvered dial for a 54-hour (two-day) chronometer. The rest of the instrument is missing.

**Note** The upper instrument number relates to the chronometer, the lower to the total number of horological products by this maker.

**Literature** Mercer, *Chronometer Makers to the World*, 191; Clifton, *Directory*, 170-171.

**Obj. no.** 1967.8

**Obj. name** Chronometer

**Origin** London, England

**Maker** John Roger Arnold

**Date** About 1844

**Inscriptions** Signed and marked on the dial ‘Arnold, 84 Strand, | 1476’

**Graduation** Dial from I to XII by 1 minute, seconds to 60 by 1 second.

**Dimensions** Diameter of the dial about 93 mm.

**Provenance** Acquired in 1967 from John Ricketson.

**Description** A 48-hour (two-day) chronometer. Brass bowl containing a movement and a silvered dial; a glass cover, the bowl is gimballed in a wooden mahogany box with two handles. An inlaid circular ivory plate on the front of the lid is signed and marked ‘Arnold | 84 Strand | 1476’. The ratchet is present, and the gimbals have a locking device.

**Note** John Roger Arnold (†1843) established his business at 84 Strand in 1830; after his death it was taken over by Charles Frodsham. Chronometers numbered 1227 to 1542 with Arnold’s name are dated about 1842 to 1845.

**Literature** Gould, *The Marine Chronometer*, 188; Mercer, *Chronometer Makers to the World*, 98; Clifton, *Directory*, 10.

**Obj. no.** 2001.100.3775

**Obj. name** Chronometer

**Origin** London, England

**Maker** John Carter

**Date** About 1847

**Inscriptions** Signed and marked on the dial ‘John Carter | Maker to the Royal Navy | Cornhill London’ | ‘462’

**Graduation** Dial from I to XII by 1 minute, seconds to 60 by 1 second.

**Dimensions** Diameter of the dial 95 mm.

**Provenance** KWM, gift from West Sea Company, 1991.

**Description** A 56-hour (two-day) chronometer. Brass bowl containing a movement and a silvered dial; a glass cover, the bowl is gimballed in a brass-protected mahogany box with two handles. An inlaid brass plate on top of the lid, and an inlaid ivory plate on the front. The ratchet is present, and the gimbals have a locking device. The box is stored in a wooden carrying case with a leather strap. The carrying case can be screwed down and it is lined with padded green felt.

**Note** John Carter (1817-1878) was in business at Corn Hill from 1846 to 1851. His chronometer numbered 461 is dated 1847.

**Literature** Mercer, *Chronometer Makers to the World*, 118; Clifton, *Directory*, 50.

## Barometers

**Obj. no.** 1939.33

**Obj. name** Mercury stick barometer

**Origin** London, England

**Maker** Spencer, Browning and Rust

**Date** About 1820

**Inscriptions** Signed above the scale ‘Spencer | Browning and Rust | London’

**Graduation** The ivory scale runs from 26.5 to 31 inches of mercury. The ivory vernier runs from 1 to 10 and is moved by a knob (missing).

**Dimensions** Height 925 mm.

**Provenance** Acquired in 1939 from Charles W. Tripp.

**Description** Mahogany cylinder containing the glass tube, a brass suspension ring at the top; brass fittings and brass-covered reservoir. It is gimballed with the bracket for securing the

instrument to a ship's bulkhead. The thermometer on the front of the instrument has an ivory scale for Fahrenheit and Reaumur.

**Literature** Clifton, *Directory*, 261.

**Obj. no.** 2001.100.3162

**Obj. name** Mercury stick barometer

**Origin** Liverpool, England

**Maker** William Parkinson and William James Frodsham

**Date** About 1830

**Inscriptions** Signed above the scale 'Parkinson & Frodsham | Liverpool'

**Graduation** The ivory scale runs from 25.5 to 31 inches of mercury; the silver vernier is hand-moved and runs from 1 to 10.

**Dimensions** Height 930 mm.

**Provenance** KWM

**Description** Mahogany cylinder containing the glass tube; brass fittings and brass-covered reservoir. It is gimballed, but the bracket for fastening the instrument to a ship's bulkhead is missing. The thermometer on the front of the instrument has a silvered scale for Fahrenheit.

**Note** Parkinson and Frodsham were active in Liverpool from 1828 to 1835.

**Literature** Clifton, *Directory*, 209.

**Obj. no.** 00.220.10

**Obj. name** Mercury stick barometer

**Origin** Sydney, Australia

**Maker** Lawrence Cetta

**Date** 1848-1853

**Inscriptions** Signed above the scale 'L. Cetta | Sydney'

**Graduation** The ivory scale runs from 27 to 31 inches of mercury. The ivory vernier runs from 1 to 10 and is moved by an ivory knob.

**Dimensions** Height 920 mm.

**Provenance** Unknown

**Description** Mahogany cylinder containing the glass tube, a brass suspension ring at the top; brass fittings and brass-covered reservoir. The gimbals and the bracket for securing the instrument to a ship's bulkhead are missing; the thermometer is missing.

**Note** Lawrence Cetta (\*near Como, Italy, 1803) emigrated to Australia around 1840. He went into partnership as instrument maker and retailer in Sydney, in 1841, with T.E. Hughes. From 1846 to 1848 Cetta was associated with his brother Julian, under the name 'L.J. Cetta'.

Thereafter he continued as 'L. Cetta' until his retirement in 1853. It is very likely that this barometer was purchased by a whale man in Sydney, in the years 1848 to 1853.

**Literature** Information communicated (June 2012) by Julian Holland in Australia, based on his forthcoming article 'Artisan Merchants of Italian Background in Colonial Sydney'.

**Obj. no.** 2001.100.2799

**Obj. name** Mercury stick barometer

**Origin** Boston, Massachusetts

**Maker** William Bond and Son

**Date** About 1855

**Inscriptions** Signed above the scale 'Bond & Son | 17 Congress S<sup>t</sup> | Boston'

**Graduation** The ivory scale runs from 27 to 31 inches of mercury. The ivory vernier runs from 1 to 10 and is moved by an ivory knob.

**Dimensions** Height 940 mm.

**Provenance** KWM

**Description** Mahogany cylinder containing the glass tube, a brass suspension ring at the top; brass fittings and brass-covered reservoir. It is gimballed with the bracket for securing the instrument to a ship's bulkhead. The thermometer on the front of the instrument has a silvered scale for Fahrenheit.

**Note** William M. Bond and Son were at 17 Congress Street, Boston in 1859.

**Literature** Stephens, 'Partners in Time', 357.

**Obj. no.** 1964.45

**Obj. name** Mercury stick barometer

**Origin** Liverpool, England

**Maker** Wolf

**Date** About 1860

**Inscriptions** Signed above the scale 'Wolf | South Castle S<sup>t</sup> | Liverpool'

**Graduation** Both ivory scales run from 26.5 to 31 inches of mercury. Two ivory verniers run from 1 to 10 and are moved by milled knobs.

**Dimensions** Height 990 mm.

**Provenance** Bequeathed by Homer Leclair in 1964.

**Description** Mahogany cylinder with elaborate wood carvings, containing the glass tube; brass fittings and brass-covered reservoir. It is gimballed but the bracket for securing the instrument to a ship's bulkhead is missing. The two scales are marked 'A.M. Yesterday' (left) and 'A.M. Today'. The 'Improved Sympiesometer' and a thermometer for Fahrenheit are on the front of the instrument, on a silver scale.

**Note** The sympiesometer was re-invented by Alexander Adie in Edinburgh; it is a compact barometer filled with coloured almond oil and hydrogen gas instead of mercury and a vacuum. It was used on ships in the nineteenth century. Nothing was found on Wolf, who was probably not the maker but the retailer of this barometer.

### Gunter's Rules

**Obj. no.** 1991.43.14

**Obj. name** Gunter's rule, part

**Origin** Unknown

**Maker** Unknown

**Date** Eighteenth century

**Inscriptions** None

**Dimensions** Length by width by height 126 mm by 17 mm by 3 mm.

**Provenance** Acquired in 1991 from Isabel P. Earle, South Dartmouth, MA.

**Description** Elephant ivory part of a Gunter's scale, with inlaid brass studs for protection from wear by dividers. It's possible that this rule came from a set of drawing instruments.

**Obj. no.** 00.220.27

**Obj. name** Gunter's rule or a plane scale

**Origin** Probably United States

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** None

**Dimensions** Length 314 mm.

**Provenance** Unknown

**Description** Boxwood rule or plane scale with scales on both sides.

**Obj. no.** 1959.11.2  
**Obj. name** Gunter's rule  
**Origin** United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 604 mm.  
**Provenance** Acquired in 1959 from Georgiana and Julie P. Parnell.  
**Description** Whale bone ivory rule with scales on the front, with inlaid brass studs for protection from wear by dividers.

**Obj. no.** 00.220.30  
**Obj. name** Gunter's rule  
**Origin** United States  
**Maker** Unknown  
**Date** First half nineteenth century  
**Inscriptions** None  
**Dimensions** Length by width by height 610 mm by 47 mm by 6 mm.  
**Provenance** Unknown  
**Description** Boxwood rule with scales on both sides of the ruler, with inlaid brass studs for protection from wear by dividers.

**Obj. no.** 00.220.28  
**Obj. name** Gunter's rule  
**Origin** Boston, Massachusetts  
**Maker** Unknown  
**Date** First half nineteenth century  
**Inscriptions** Marked 'T C | Boston'  
**Dimensions** Length by width by height 609 mm by 46 mm by 5 mm.  
**Provenance** Unknown  
**Description** Boxwood rule with scales on both sides of the ruler, with inlaid brass studs for protection from wear by dividers.

**Obj. no.** 2001.100.3017  
**Obj. name** Gunter's rule  
**Origin** New York, New York  
**Maker** Belcher Brothers  
**Date** 1828-1860  
**Inscriptions** Signed on the front at the right '\* Belcher Brothers Makers\* | \* New-York\*'  
**Dimensions** Length by width by height 609 mm by 44 mm by 4 mm.  
**Provenance** KWM  
**Description** Boxwood rule with scales on both sides of the ruler, with inlaid brass studs for protection from wear by dividers.  
**Note** A Gunter's rule by Belcher Brothers is preserved in the Peabody Essex Museum, Salem, MA (M10130).  
**Literature** Brewington, *The Peabody Museum Collection*, 108, 119.

**Obj. no.** 1958.10.2  
**Obj. no.** Gunter's rule  
**Origin** New York, New York

**Maker** Erasmus A. Kutz

**Date** About 1845

**Inscriptions** Signed on the front at the right ‘\* Kutz Maker 172 Water St New York \*’

**Dimensions** Length by width by height 610 mm by 45 mm by 6 mm.

**Provenance** Acquired in 1958 from Thomas B. Card.

**Description** Boxwood rule with scales on both sides of the ruler, with inlaid brass studs for protection from wear by dividers.

**Note** An almost identical rule by Erasmus Kutz, but with his address at 180 Water Street, is preserved in the Peabody Essex Museum, Salem, MA (M12613).

**Literature** Mörzer Bruyns, ‘Trade Labels’, 11.

**Obj. no.** 00.220.29

**Obj. name** Gunter’s rule

**Origin** New York, New York

**Maker** Merrifield and Co

**Date** About 1850

**Inscriptions** Signed on the front at the right ‘\*Merrifield & Co \* Patent \* New York \*’

**Dimensions** Length by width by height 607 mm by 43 mm by 5 mm.

**Provenance** Unknown

**Description** Boxwood rule with scales on both sides of the ruler, with inlaid brass studs for protection from wear by dividers. The straight edge of the rule is brass-covered, as are its both ends.

**Note** A similar rule by Merrifield and Co dated 1853 is preserved in Mystic Seaport Museum, Mystic, CT (1943.1185).

**Obj. no.** 1958.10.1

**Obj. name** Sliding Gunter’s rule

**Origin** Boston, Massachusetts

**Maker** Joseph Watts

**Date** 1859-1879

**Inscriptions** Signed on the front at the left ‘J. Watts Boston \* Harrison Delano \*’

**Dimensions** Length 639 mm.

**Provenance** Acquired in 1958 from Thomas B. Card.

**Description** Boxwood scales on both sides of the rule, brass covers at the ends.

**Note** Joseph Watts of Boston won a diploma for his measuring instruments (boxwood scales and measures) at the 1869 exhibition of the Massachusetts Charitable Mechanic Association fair. He appears in Boston directories from 1859 to 1879, and continued as Watts Brothers until 1900. The name Harrison Delano cannot be associated with instrument-making; it must be assumed that the rule was made for him by Watts.

**Literature** Information communicated (June 2012) by Deborah Jean Warner, curator of the physics collection at the NMAH (Smithsonian), Washington DC.

### Log Slate

**Obj. no.** 1936.44.5

**Obj. name** Log slate

**Origin** United States

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** Scratched on the frame on both sides ‘A W P’

**Dimensions** Height by width 343 by 243 mm.

**Provenance** Unknown

**Description** A wood-framed rectangular slate, the back of the slate is blank. On the front, the engraved columns run from left to right, and are marked to be filled in for: H [hour]; K [knots]; Courses; Wind; Remarks. A vertical column below the H is numbered from 1 to 24 [hours]. A second set of columns at the bottom of the slate are for b (below 'Courses') and D (below 'Wind', perhaps for Direction), and for N, S, E, W, possibly for interpolation of wind directions or courses.'

**Note** I cannot explain the abbreviation for the b column.

### Sectors

**Obj. no.** 1946.19.9

**Obj. name** Sector

**Origin** Probably England

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** None

**Dimensions** Length 159 mm (closed).

**Provenance** Acquired in 1946 from Mrs F.P. Wegls, Merrifield, NY.

**Description** A boxwood sector with a brass hinge and inlaid brass studs for protection from wear by dividers. Scales on both sides and on the outer edge.

**Obj. no.** 1904.4946

**Obj. name** Sector

**Origin** Westport, Massachusetts

**Maker** Cifford

**Date** About 1890

**Inscriptions** Signed on the front '\* Cifford Makers | Westport. Mass. \*'

**Dimensions** Length 317 mm (closed).

**Provenance** Unknown

**Description** A boxwood sector with a brass hinge and brass covers at the ends. A sliding brass rule in one of the legs. The front of the instrument has various scales; the back has a division in inches, its unfolded length is two feet.

**Note** This is probably not a navigational tool, but one for shipwrights. Nothing was found on Cifford, makers at Westport.

### Parallel Rules, Dividers, Drawing Instrument Sets, and a Plotter

**Obj. no.** 2001.100.3127

**Obj. name** Drawing-instrument set in case

**Origin** London, England

**Maker** Unknown

**Date** About 1800

**Inscriptions** Marked on the sector and Gunter's scale 'London Made for J. M<sup>c</sup>Allister'; marked on a label inside the lid 'Sold by | M<sup>c</sup>Allister | 48, Chestnut-st | Philada.'

**Dimensions** Height by width by depth 169 mm by 74 mm by 33 mm (case).

**Provenance** KWM

**Description** An upright wooden case with a hinged lid, both covered by fish skin, enclosing a sector, a Gunter's scale (cracked), two dividers, dotting pen, pencil points, ruling pen, and a separate inking pen. In MS on the inside of the lid 'N<sup>o</sup>' and 'books | [in]struments'. The spaces for the dividers have partially been lined with printed paper, possibly advertisements of McAllister. One piece is missing, perhaps a thin rule.

**Note** John McAllister (1735-1830) emigrated from Scotland to Philadelphia in 1775 and became a successful whip and cane manufacturer in that city. In 1796 he bought a stock of spectacles and henceforth the firm became successful as manufacturers and proprietors of optical equipment; their earlier speciality had eclipsed completely by 1830. Besides the cracked scale and the missing part, the set is in good condition.

**Literature** [www.librarycompany.org](http://www.librarycompany.org)

**Obj. no.** 1940.24.36

**Obj. name** Parallel rule

**Origin** Probably United States

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** None

**Dimensions** Length 456 mm.

**Provenance** Acquired in 1940 from Dr C.R. Hunt.

**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 00.1220.23

**Obj. name** Parallel rule

**Origin** Probably United States

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** None

**Dimensions** Length 383 mm.

**Provenance** Unknown

**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 1935.29.1

**Obj. name** Parallel rule

**Origin** Probably United States

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** None

**Dimensions** Length 305 mm.

**Provenance** Acquired in 1935 from William MacAfee.

**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Note** One of the rules is cracked.

**Obj. no.** 2001.100.3051

**Obj. name** Parallel rule

**Origin** Probably United States

**Maker** Unknown

**Date** Nineteenth century

**Inscriptions** Some illegible scratches on the back of one of the rules

**Dimensions** Length 305 mm.

**Provenance** KWM

**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 2001.100.3050

**Obj. name** Parallel rule

**Origin** Probably United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 303 mm.  
**Provenance** KWM  
**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 2001.100.2826  
**Obj. name** Parallel rule  
**Origin** Probably United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 302 mm.  
**Provenance** KWM  
**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 00.220.24  
**Obj. name** Parallel rule  
**Origin** Probably United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 303 mm.  
**Provenance** Unknown  
**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 2001.100.3052  
**Obj. name** Parallel rule  
**Origin** Probably United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 153 mm (6").  
**Provenance** KWM  
**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 2001.100.3102  
**Obj. name** Parallel rule  
**Origin** Probably United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 400 mm.  
**Provenance** KWM  
**Description** Fruitwood parallel rule with whalebone hinges (brass rivets) and two whalebone knobs; the ends of the rules are brass-covered.

**Obj. no.** 1991.43.12

**Obj. name** Parallel rule  
**Origin** Probably United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 153 mm (6").  
**Provenance** Acquired in 1991 from Isabel P. Earle.  
**Description** Elephant ivory parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 1991.43.11  
**Obj. name** Parallel rule  
**Origin** Probably United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 153 mm (6").  
**Provenance** Acquired in 1991 from Isabel P. Earle.  
**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 1991.43.10  
**Obj. name** Parallel rule  
**Origin** Probably United States  
**Maker** Unknown  
**Date** Nineteenth century  
**Inscriptions** None  
**Dimensions** Length 453 mm.  
**Provenance** Acquired in 1991 from Isabel P. Earle.  
**Description** Rosewood parallel rule with two brass hinges and two brass knobs.

**Obj. no.** 2001.100.3058  
**Obj. name** Dividers and protractor  
**Origin** London, England  
**Maker** Joseph Schmalcalder  
**Date** About 1830  
**Inscriptions** Signed on the protractor 'Schmalcalder \* 399 Strand London' ; Marked on one of the legs of the dividers 'E.G. Nicolay.'  
**Dimensions** Protractor width 112 by radius 20 mm.  
**Provenance** KWM  
**Description** Elephant ivory protractor and brass dividers with steel points. The dividers are in three parts, and can be used for pricking off distances, and for drawing circles by pencil and with ink. In a fitted etui covered with red leather (a little damaged) and lined with red velvet.  
**Note** Nice set. Nicolay was probably an owner. Joseph Schmalcalder was active at 399 Strand from 1830 to 1831.  
**Literature** Clifton, *Directory*, 246.

**Obj. no.** 2001.100.3067  
**Obj. name** Parallel rule  
**Origin** London, England  
**Maker** John Dennett Potter  
**Date** About 1860

**Inscriptions** Signed and marked on the front ‘Potter Poultly London | Registered Nov<sup>r</sup> 1851’ ; Marked on the front ‘H.H. Litchfield’ ; ‘H H L’ ; scratched on the back ‘H H L’

**Graduation** The compass rose is divided by 128 points, and marked NE, E, SE, S, SW, W, NW, and in four quadrants to 1°. There are scratched digits on the front and back of the rules.

**Dimensions** Length 379 mm.

**Provenance** KWM

**Description** Ebony parallel rule with two brass hinges and one brass knob. A larger milled knob rotates the compass rose to set it for the correction of the compass. There is a surface-mounted ivory plate on one of the rules marked ‘Local Deviation’, on which the deviation can be noted with a pencil.

**Note** With this parallel rule and the rotating brass compass rose, a course line or line of bearing can be plotted including the correction for the compass. H.H. Litchfield was probably an owner of this instrument. John Dennett Potter was established at Poultry from 1851 to 1882. A similar example, made by Henry Hughes and Son in London, is preserved in the National Maritime Museum, Greenwich, London (NAV0599).

**Literature** Clifton, *Directory*, 221.

**Obj. no.** 2001.100.3081

**Obj. name** Rolling parallel rule

**Origin** London, England

**Maker** Elliott Brothers

**Date** 1873-1886

**Inscriptions** Signed on the front ‘Elliott Bro<sup>s</sup> 449, Strand, London.’

**Graduation** Both edges have an 18” division. On one side the first 9” each have a further division of 8; on the other side the first 9” each have a further division of 4.

**Dimensions** Length 466 mm.

**Provenance** KWM

**Description** Brass rule with two brass rollers and a brass holding edge.

**Note** Elliott Brothers were established at 449 Strand from 1873 to 1886. This rule is similar to an example preserved in the Peabody Essex Museum, Salem, MA (M8798).

**Literature** Clifton, ‘An Introduction to the History of Elliott Brothers’, 3; Brewington, *The Peabody Museum Collection*, 92.

**Obj. no.** 00.220.22

**Obj. name** Parallel rule

**Origin** Boston, Massachusetts

**Maker** Wadsworth, Howland and Company

**Date** About 1890

**Inscriptions** Signed on the front ‘Wadsworth Howland & Co.’

**Dimensions** Length 6” (153 mm).

**Provenance** Unknown

**Description** Ebony parallel rule with two brass hinges and two brass knobs.

**Note** According to their illustrated catalogue of 1885 and 1895, Wadsworth, Howland and Company at 82 and 84 Washington and 46 Friend Streets in Boston, sold 6” parallel rules for \$0.25.

**Literature** *Illustrated Catalogue of Wadsworth Howland & Co., Importers and dealers in Artist’s Supplies and Architects’ and Engineers’ Stationary*. Boston, 1885 and Boston 1895 (both digitalized, and available on the Internet).

**Obj. no.** 2006.9.1.9

**Obj. name** Course protractor

**Origin** New York, New York

**Maker** T.S. and J.D. Negus

**Date** About 1890

**Inscriptions** Signed and marked on both protractors 'T.S. & J.D. Negus. | Nautical instruments 140 Water St. New York'; Marked 'Course Protractor | Patent applied for'

**Dimensions** Square 113 by 113 mm (both protractors).

**Provenance** Acquired in 2006 from Romolo[?] Raffa in memory of Hannah Sherman Raffa (†2005).

**Graduation** The compass roses are divided by 32 points and marked NbE, NNE, NEbN, NE, NEbE, ENE, EbN, E, EbS, ESE, SEbE, SE, SSE, SbE, S, SbW, SSW, SWbS, SW, SWbW, WSW, WbS, W, WbN, WNW, NWbW, NW, NWbN, NNW, NbW, and in four quadrants to 1°.

**Description** Two plastic protractors with brass-ringed holes at their centres, and connected by a black thread (broken). The North points are indicated by fleurs-de-lis. In a paper etui printed on the front 'Transparent | Course Protractor, | By | T.S. & J.D. Negus, | Nautical instruments, | 140 Water Street, New York', and on the back 'Directions for use'.

**Note** These course protractors were used instead of a parallel rule to find courses and bearings on charts and positions from cross bearings. They were also used as an inspection table to turn compass courses into true courses and vice versa. In 1899 Negus offered these instruments for sale for \$1.50. A similar example is preserved in Mystic Seaport Museum, Mystic, CT (2005.34.150).

**Literature** *Illustrated Catalogue and Price List of Nautical & Optical Instruments Manufactured and Imported by T.J. and J.D. Negus...etc.* (New York, 1899) in the NMAH (Smithsonian), Washington DC, available on-line).

**Obj. no.** 1958.8

**Obj. name** Protractor | The Cole Course Protractor

**Origin** Bryantville, Massachusetts

**Maker** Marine Compass Company

**Date** About 1910

**Inscriptions** Signed on the front of the protractor 'M.C. Co. | Sole Makers' ; Marked on the front of the protractor 'Pat. Oct. 1907 The Cole Course Protractor'

**Dimensions** Length 533 mm (rule).

**Provenance** Acquired in 1958 from Henry H. Rennell.

**Description** Circular brass protractor divided from 0° to 360° by 1°, and by 128 quarter points and a plastic rule with a milled brass knob. When the rule is laid along a required line in the chart, the indicator moves accordingly along the protractor face, and the course or bearing can be read off, + or -180°. When the protractor is laid N-S in the chart, the direction in which the rule points, can be read off. In a fitted mahogany box containing in the lid a printed 'Care of the Instrument' document, and in pencil '\$16.60'.

**Note** Cole course protractors are preserved in the Peabody Essex Museum, Salem, MA (M11020, M10063, and M23287). The Marine Compass Company was founded in Hanover, MA in 1910; its owners took over E.S. Ritchie and Son in 1951.

**Literature** Brewington, *The Peabody Museum Collection*, 93-94.

**Obj. no.** 2001.100.3101

**Obj. name** Rolling parallel rule

**Origin** United States | England

**Maker** Unknown

**Date** About 1920

**Inscriptions** None

**Graduation** Both edges have a 12" division. On one side the first 6" each have a further division of 6; on the other side the first 6" have a further division of 4.

**Dimensions** Length 315 mm.

**Provenance** KWM

**Description** Plastic and ebony rule, with two brass rollers, and a brass holding edge.

**Note** Compare with the rule preserved in the Peabody Essex Museum, Salem, MA (M8798).

**Literature** Brewington, *The Peabody Museum Collection*, 92.

**Obj. no.** 2006.9.1.5

**Obj. name.** Drawing-instrument set in box

**Origin** Philadelphia, Pennsylvania

**Maker** Theodore Alteneder and Sons

**Date** About 1920

**Inscriptions** Signed and marked on the dividers 'T. Alteneder & Sons | Patent 1871' ;

Marked on some of the other parts 'TA & Sons' ; marked '46'

**Dimensions** Length by width by height 217 mm by 111 mm by 22 mm (box).

**Provenance** Acquired in 2006 from Romolo[?] Raffa in memory of Hannah Sherman Raffa (†2005).

**Description** Flat wooden box covered with black paper (the bottom is black textile), and lined with green velvet; two locks. It contains two large dividers, and seven additional parts.

**Note** Theodore Alteneder and Sons were founded in 1852; the 1871 patent refers to a half-round attachment with screw on edge with modern style pencil holder.

**Literature** Sales catalogues of Alteneder and Sons are available on-line.

### Logs and Depth Sounders

**Obj. no.** 00.220.11

**Obj. name** Mechanical depth sounder

**Origin** New York, New York

**Maker** Edmund and George William Blunt

**Date** About 1860

**Inscriptions** Signed on the frame 'E & G.W. Blunt | New-York | 94' ; Marked '2'

**Graduation** A cogged wheel indicating from 0 to 24 fathoms; the second wheel indicates from 0 to 160, and from 0 to 1000.

**Dimensions** Length 340 mm.

**Provenance** Unknown

**Description** Brass frame containing two cogged wheels connected by a gear. There is a fixed suspension ring at the top, and a rotating ring at the bottom of the frame.

**Note** A similar example, with instrument number 46, is preserved in the Peabody Essex Museum, Salem, MA (M10184).

**Literature** Brewington, *The Peabody Museum Collection*, 97.

**Obj. no.** 00.220.51

**Obj. name** Mechanical log | Walker's Harpoon log

**Origin** England, probably Birmingham

**Maker** Thomas Walker and Son, Ltd.

**Date** About 1870

**Inscriptions** Signed and marked on the enamelled plate ‘Walker’s | Harpoon | Ship Log | Patented | 18<sup>th</sup> Sep<sup>r</sup> 1866’ ; on the fin ‘Walker’s | Patent | Sep<sup>t</sup> 18<sup>th</sup> 1866’ ; on each of the propeller blades ‘[anchor] | T W’

**Graduation** Three indicators, one for 0 to 100 miles; one for 1 to 10 miles, and one to a quarter mile.

**Dimensions** Length 490 mm.

**Provenance** Unknown

**Description** Brass casing painted black containing gear, three enamelled dials with indicators; a propeller with five blades

**Note** Walker brought his first Harpoon log on the market in 1861. A similar example is preserved in the Peabody Essex Museum, Salem, MA (M533).

**Literature** Sharp, *Distance Run*, 85; Brewington, *The Peabody Museum Collection*, 84.

**Obj. no.** 00.220.52

**Obj. name** Mechanical log | Taffrail log

**Origin** New York, New York

**Maker** John Bliss and Co

**Date** About 1880

**Inscriptions** Signed and marked on the enamelled plate ‘John Bliss & Co. | Taffrail | Log | Patented | Nov. 15, 1864. | Apr. 2, 1867. | June 6, 1876. | Sep. 17, 1878’

**Graduation** Three indicators, one for 0 to 100 miles; one for 1 to 10 miles, and one to a quarter mile.

**Dimensions** Length 276 mm.

**Provenance** Unknown

**Description** Brass casing containing gear, with three enamelled dials and indicators. A brass bracket with a piece of rope, the rest of the instrument is missing.

**Note** A slightly earlier example of this log is preserved in the Peabody Essex Museum, Salem, MA (M3028).

**Literature** Sharp, *Distance Run*, 28, 125; Brewington, *The Peabody Museum Collection*, 84.

**Obj. no.** 2001.100.10023

**Obj. name** Mechanical log propeller | Cherub log propeller

**Origin** England, probably Birmingham

**Maker** Thomas Walker and Son, Ltd.

**Date** About 1880

**Inscriptions** Signed and marked on one of the propeller blades ‘[anchor] | T W | Cherub’

**Graduation** None

**Dimensions** Length 365 mm.

**Provenance** KWM

**Description** Brass propeller with four blades, and some original rope attached, including the brass link to the log wheel (missing).

**Note** Walker brought his Cherub Taffrail log on the market in 1878.

**Literature** Sharp, *Distance Run*, 71, 89.

**Obj. no.** 1995.47

**Obj. name** Mechanical log | Negus Taffrail log

**Origin** New York, New York

**Maker** T.J. and J.D. Negus | The Lionel Corporation

**Date** About 1895 | about 1950

**Inscriptions** Signed and marked on the enamelled plate ‘Negus | Taffrail Log’ ; Marked ‘Patented Aug. 1892’ ; marked on the hinged lid of the oil hole ‘GITB Bros | Pat. | MFG. Co’ ; signed and marked on one of the propeller blades ‘The Lionel Corporation | New York, N.Y. | Type TL’

**Graduation** Two indicators, the large for 0 to 100 miles, the smaller for 1 to 10 miles.

**Dimensions** Diameter of the dial 105 mm.

**Provenance** Acquired in 1995 from John P. Lucas, New Bedford, MA.

**Description** Cylindrical brass case containing gear, an enamelled dial with two indicators, and a hinged glass cover; the Connector, a double spindle, and a propeller with four blades(the propeller is younger and from other equipment). The line and the foot attached to the taffrail are missing.

**Note** Negus patented his Taffrail log in 1892. A similar Taffrail log by Negus is preserved in the NMAH (Smithsonian), Washington, DC (313418). The Lionel Corporation was founded in New York city in 1900, producing electric toy trains. In 1942 it started producing nautical equipment for the US Navy as part of the War effort. The firm was liquidated in 1993.

**Literature** Sharp, *Distance Run*, 133.

**Obj. no.** 2001.100.2793

**Obj. name** Mechanical log | Taffrail log

**Origin** England, probably Birmingham

**Maker** Thomas Walker and Son, Ltd.

**Date** Twentieth century

**Inscriptions** Signed and marked on the enamelled plate ‘Nautical Miles | Walker’s Patent | Taffrail Ship-Log’; signed on each blade of the propeller ‘[anchor] T W’

**Graduation** One indicator from 0 to 100 miles.

**Dimensions** Diameter of the dial 68 mm.

**Provenance** KWM

**Description** Cylindrical brass case containing gear, an enamelled dial with an indicator, and a hinged glass cover; the brass mount that is to be fixed to the taffrail. The brass propeller has four blades, a brass link between gear and line. The wheel is missing; the line is modern.

**Note** Walker patented his Taffrail ship-log in 1878.

**Literature** Sharp, *Distance Run*, 126.

**Obj. no.** 2001.100.10026

**Obj. name** Sounding leads

**Origin** Probably United States

**Maker** Unknown

**Date** Twentieth century

**Inscriptions** None

**Dimensions**

**Provenance** KWM

**Description** One heavy deep-sounding lead, and two light hand sounding leads. All three have a hollow at the bottom for putting in talc for taking a sample of the sea bottom.

**Obj. no.** 2001.100.10023

**Obj. name** Mechanical log | Cherub Taffrail log

**Origin** England, probably Birmingham

**Maker** Thomas Walker and Son, Ltd.

**Date** 1902-1930

**Inscriptions** Signed and marked on the enamelled plate ‘Walker’s | Patent | Cherub | (Mark II) Ship Log’ ; signed on the brass casing ‘Walker’s “Cherub” [anchor] Ship-Log T. W. (Mark II) | 900’

**Graduation** One indicator from 0 to 100, the other from 0 to 10.

**Dimensions** Diameter of the dial 68 mm.

**Provenance** Unknown

**Description** Brass case containing gear, an enamelled dial with two indicators, and a hinged glass cover; a double spindle.

**Note** Walker brought his Cherub Taffrail log on the market in 1878; Mark II was produced from 1902 to 1930.

**Literature** Sharp, *Distance Run*, 71, 89, 127.

**Not Found: The descriptions have been taken from the NBWM file**

**Obj. no.** 00.126.4

**Obj. name** Tell-tale compass

**Origin** New Bedford, Massachusetts

**Maker** Charles R Sherman

**Note** According to the NBWM file this was de-accessioned.

**Obj. no.** 00.1.1 This might be identical to octant 00.1.2 that was also donated by Swift.

**Obj. name** Octant

**Description** Ebony frame, brass index arm and fittings, ivory scale. Tangent screw and clamping screw. Three index glasses; two horizon glasses. Adjustment by key. Ivory scale.

**Provenance** Clement W.N. Swift, USN

**Obj. no.** 00.3 This might be identical to octant 00.1.2 that also belonged to William Ashley.

**Obj. name** Octant

**Description** Ebony frame and limb with brass index arm and fittings. Ivory scale and vernier. Three index shades, one horizon shade. Tangent screw. Adjustment of the horizon glass by lever and thumb screw.

**Provenance** May have belonged to William Ashley

**Obj. no.** 00.4

**Obj. name** Octant

**Description** Ebony frame and limb with brass index arm and fittings, a brass stop for the index arm; ivory scale and vernier. Three socket shades. Adjustment of both horizon glasses by levers and screws. Floral decorations on the index arm.

**Obj. no.** 00.5

**Obj. name** Octant

**Description** Ebony frame and limb with a brass index arm and fittings. Ivory scale, vernier and inlaid plate on the crossbar. Three socket shades. Tangent screw. Adjustment of the horizon glass probably by worm gear and milled knob; adjustment of the back sight vane probably by lever and milled knob. Sight vane with two pinholes and a swivelling shutter; the back sight vane has one pinhole.

**Obj. no.** 00.6.

**Obj. name** Octant

**Description** Ebony frame and limb with a brass index arm and fittings. Bone or ivory scale and vernier. Three horizon shades, two horizon shades. Tangent screw. Sight vane with two pinholes and a swivelling shutter. Adjustment of the horizon glass probably by worm gear and milled screw.

**Obj. no.** 00.9

**Obj. name** Sextant

**Origin** London, England

**Maker** Spencer, Browning and Co

**Description** Brass frame and ebony handle. Inlaid silver scale and vernier. Threaded telescope bracket. Four index shades; three horizon shades. Tangent screw. Magnifier on a swivelling arm. Adjustment of the horizon glass by capstan screws. One telescope.

**Obj. no.** 00.220.61

**Obj. name** Mercury stick barometer

**Origin** London, England

**Maker** Negretti and Zambra

**Provenance** Matthew Amaral

**Description** It has a brass bracket for attaching the instrument to the bulkhead of a ship.

**Note** This was supposed to be in the Wood Building Storage Unit 15B, shelf 7, but it was not.

**Obj. no.** 1906.22

**Obj. name** Compass

**Note** 'Made by Russell'

**Provenance** gift Thomas Akin.

**Obj. no.** 1906.29

**Obj. name** Deep sea indicator

**Provenance** Old Dartmouth Historical Society

**Obj. no.** 1924.11.1

**Obj. name** Compass

**Provenance** gift P.L. Haskell

**Obj. no.** 1927.16

**Obj. name** Sextant

**Provenance** gift Raymond T. Potter, used by his grandfather, Capt. Joshua W. Potter, sailed 1853-1857 on the bark *Hercules* from New Bedford.

**Obj. no.** 1933.1.1.

**Obj. name** Monocular (single lens); a telescope.

**Provenance** Frank Wood [he also donated sextant 00.8 without a number]

**Obj. no.** 1933.1.2

**Obj. name** Field glasses (binocular telescope)

**Note** Formerly used by Captain Charles P. Seabury.

**Provenance** Frank Wood [he also donated sextant 00.8 without a number]

**Obj. no.** 1938.65.1

**Obj. name** Compass card

**Provenance** gift Mr Lafayette L. Gifford

**Obj. no.** 1940.21.1

**Obj. name** Telescope

**Obj. no.** 1940.24.37

**Obj. name** Telescope, with a protective metal cap over the objective lens.

**Provenance** Dr C.R. Hunt

**Note** This must belong to the same group as 1940.24.104 (octant), 1940.105 (quintant) and 1940.36 (parallel rule).

**Obj. no.** 1946.31.1

**Obj. name** Octant

**Description** Ebony frame, ivory arc.

**Obj. no.** 1954.7.3

**Obj. name** Telescope

**Origin** London, England

**Maker** Spencer, Browning and Co

**Provenance** gift George W. Nickels, in memory of his wife Clair (Chloe?) Macomber Fraits, reported to be on the *Martha II*.

**Note** This must belong to the group, 1954.7.2 (octant) and 1954.7.1 (sextant) where, however, a different husband's name is recorded. Compass (1994.1) was also donated by Fraits.

**Obj. no.** 1957.5

**Obj. name** Boat compass

**Provenance** gift E.R. Parshley

**Note** This may be from the same source as 1916.36.9.3, or even the same compass.

**Obj. no.** 1961.5.11

**Obj. name** Tell-tale compass

**Origin** New Bedford, Massachusetts

**Maker** John Kehew

**Description** Gimballed tell-tale compass.

**Obj. no.** 1962.7.2

**Obj. name** Telescope

**Note** This telescope belonged to Mr Folger's father, Alexander Folger, who sailed in the *Sea Fox* in 1861.

**Obj. no.** 1995.39.12

**Obj. name** Compass with yellow pencil.

**Obj. no.** 2001.100.2619

**Obj. name** Steel dividers

**Obj. no.** 2001.100.3132

**Obj. name** Brass dividers with steel points.

**Obj. no.** 2001.100.3572

**Obj. name** Radio Direction Finder

**Note** From the whale-chaser *Cheyes II*.

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