

WARREN RIVER

RHODE ISLAND

From a Trigonometrical Survey
 under the direction of A.D.BACHE Superintendent of the
SURVEY OF THE COAST OF THE UNITED STATES

Triangulation by E.BLUNT & A.M.HARRISON Assistts.

Topography by A.M.HARRISON Assst

Hydrography by the party
 under the command of F.F.WEBBER Assst



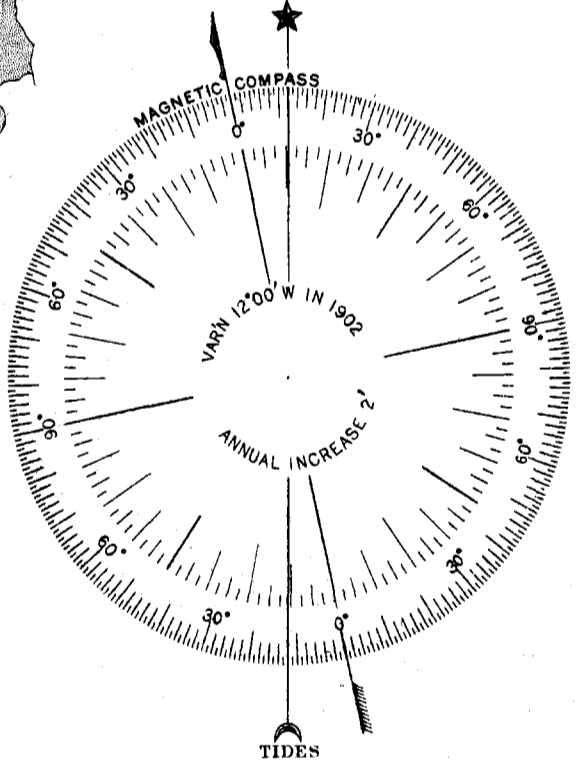
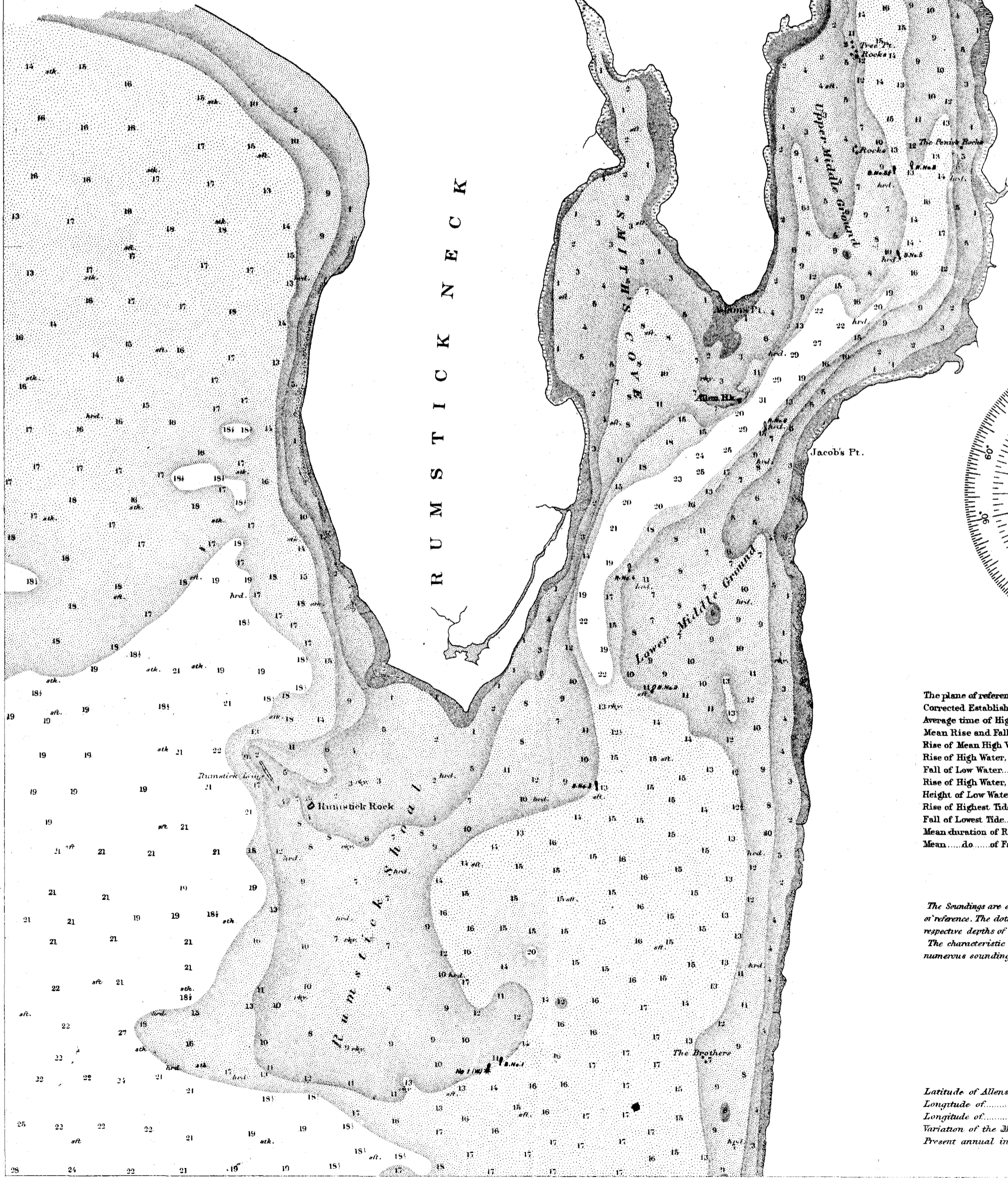
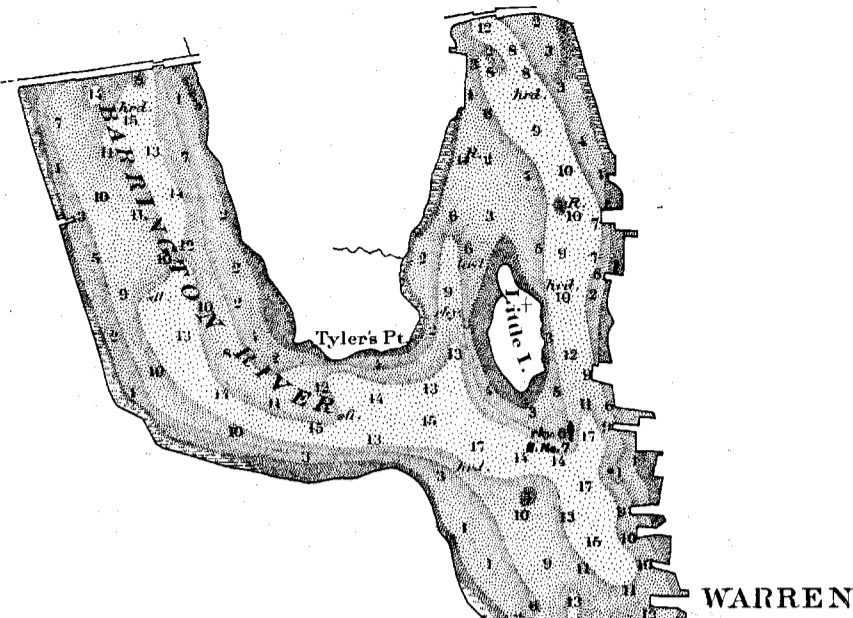
TREASURY DEPARTMENT

Polyconic Projection

Scale 10000

(Date of first publication 1886)

The Triangulation was executed in.....1863 & 63
 The Topography.....do.....in.....1864
 The Hydrography.....do.....in.....1865 & 66



The plane of reference to which the soundings are given is Mean Low Water
 Corrected Establishment, or
 Average time of High Water after Moon's meridian passage.....VIII^h VII^m
 Mean Rise and Fall of Tides, or
 Rise of Mean High Water.....above the plane of reference.....4.6 ft.
 Rise of High Water, Spring Tides, do.....do.....average.....5.0
 Fall of Low Water.....do.....below.....do.....do.....0.5
 Rise of High Water, Neap Tides, above.....do.....do.....4.2
 Height of Low Water.....do.....do.....do.....0.4
 Rise of Highest Tide observed.....do.....do.....5.4
 Fall of Lowest Tide.....do.....below.....do.....1.9
 Mean duration of Rise.....do.....do.....7^h 11^m
 Mean.....do.....of Fall.....5 1/4

SOUNDINGS
 The soundings are expressed in feet and show the depth at mean low water—the plane of reference. The dotted lines beyond low-water mark represent the bottom within the respective depths of 6, 12, and 18 feet.
 The characteristic soundings only are given on the chart, they are selected from the numerous soundings taken in the survey, so as to represent the figure of the bottom.

Abbreviations
 hrd. for hard stk. for sticky
 sp. . soft rky. . rocky
 + Signifies Sunk Rock

Latitude of Allens Rock Beacon.....41° 42' 48.7
 Longitude of.....do.....west from Greenwich Obseq. in arc.....71° 17' 37.2
 Longitude of.....do.....do.....do.....in time.....9^h 45^m 10^s.5
 Variation of the Magnetic Needle Dec. 1882 (Computed).....11° 10' W
 Present annual increase 2'

71° 18' 21" Corrected Longitude 71° 17' 21"