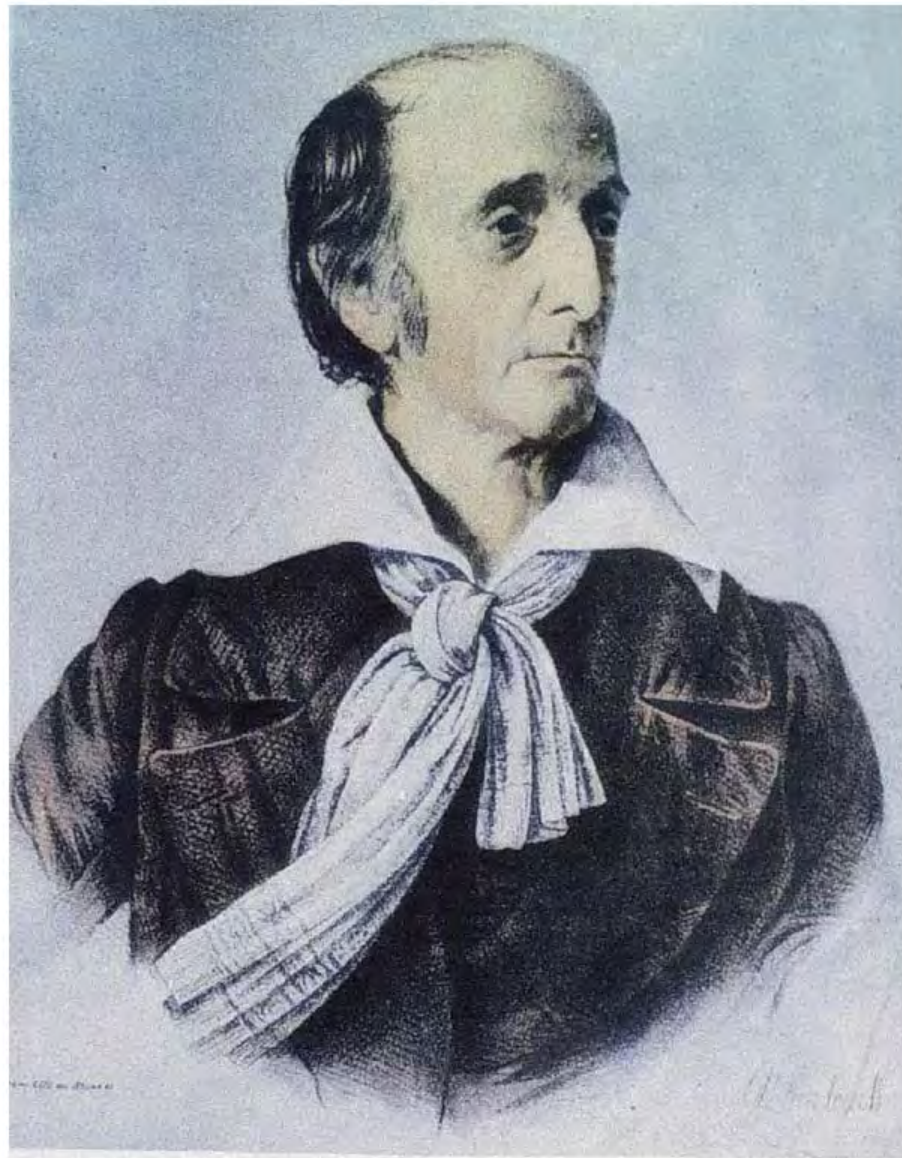


Ferdinand Hassler's Primary Triangles

John Cloud

NOAA Central Library



Library for the
Survey of the Coast

ASTRONOMIE

THEORIQUE ET PRATIQUE

TRIANGLES

for the

Survey of the Coast

made in 1817. by L. R. Hapler





Mr. H. ...
Rough sketch showing the general appearance
of the instrument and the tent which was used
in 1838

Main Triangles of the Survey of the Coast of the Un: States

No	Denomination	Distance in Meters and observed Angles	Error & Distribution	Spheric Angles Excess	Reduction to Plane Triangles
1.	Base line	14058,987	+0,		
	Pruland's	27.17.02,42	+0,203	02,623	-0,218
	Westend Base	40.10.05,66	+0,202	05,862	-0,217
	East — —	112.32.51,965	+0,202	52,167	-0,217
		<u>00,045</u>	<u>-0,607</u>	<u>0,652</u>	<u>0.652</u>
	Pruland's, East Base	19782,938			
	—, West Base	28325,220			



Beach & breakers in distance

Signal in 1837

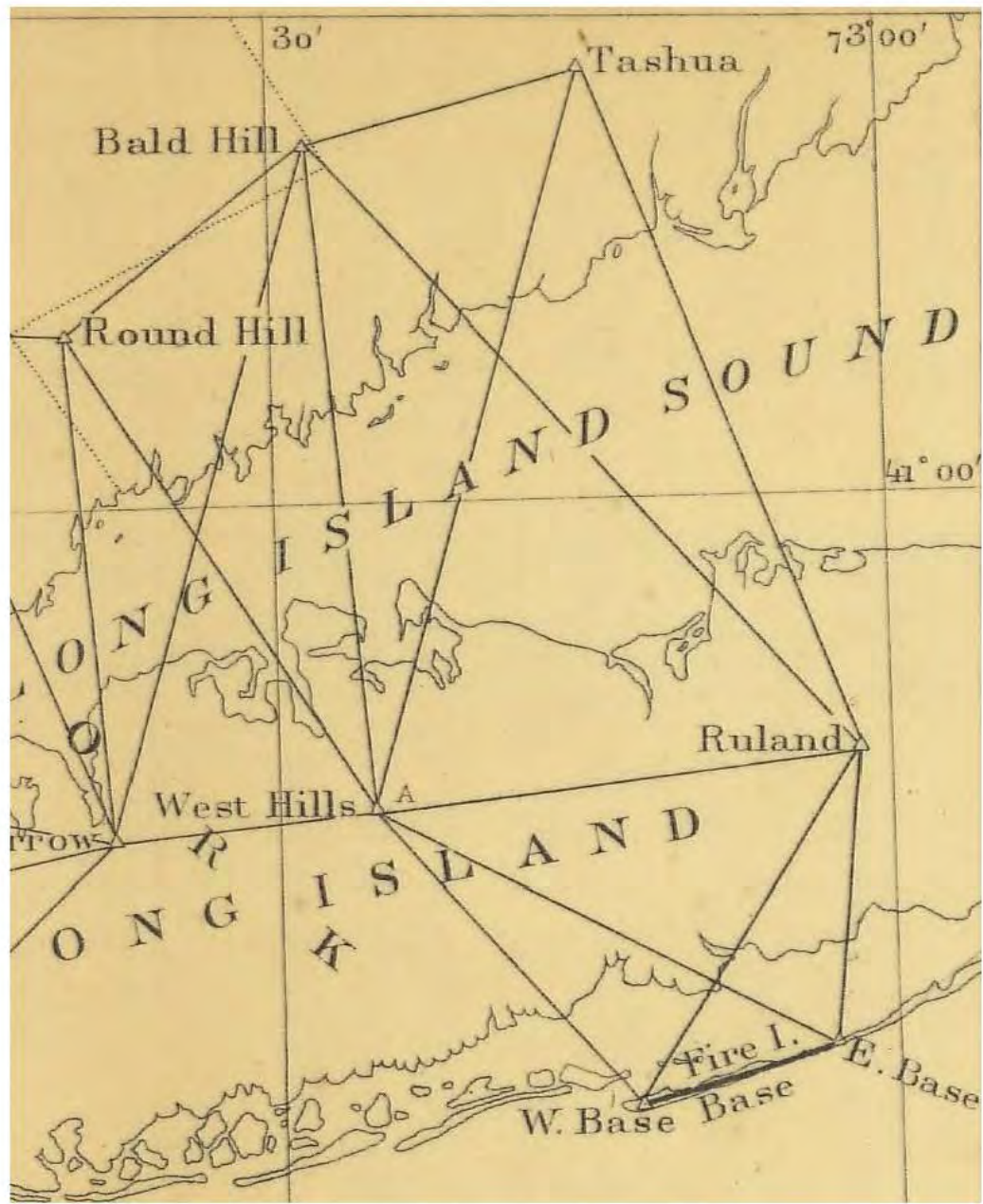
On sandy hillock

Fire Island Light-house

Fire Id Inlet in distance

West Base

West View



Mount Pleasant
& Smithtown signal
near this

newick
bay

Port Hills

Wash. Harbor
Boatman
Hill

Secretary's
Signal



No. 2. (73^d 76th views)

Continuation of South Easterly view from Bald Hills.



Hampstead Harbour Hill Signal
As seen from Balds Hill



Bald Hill



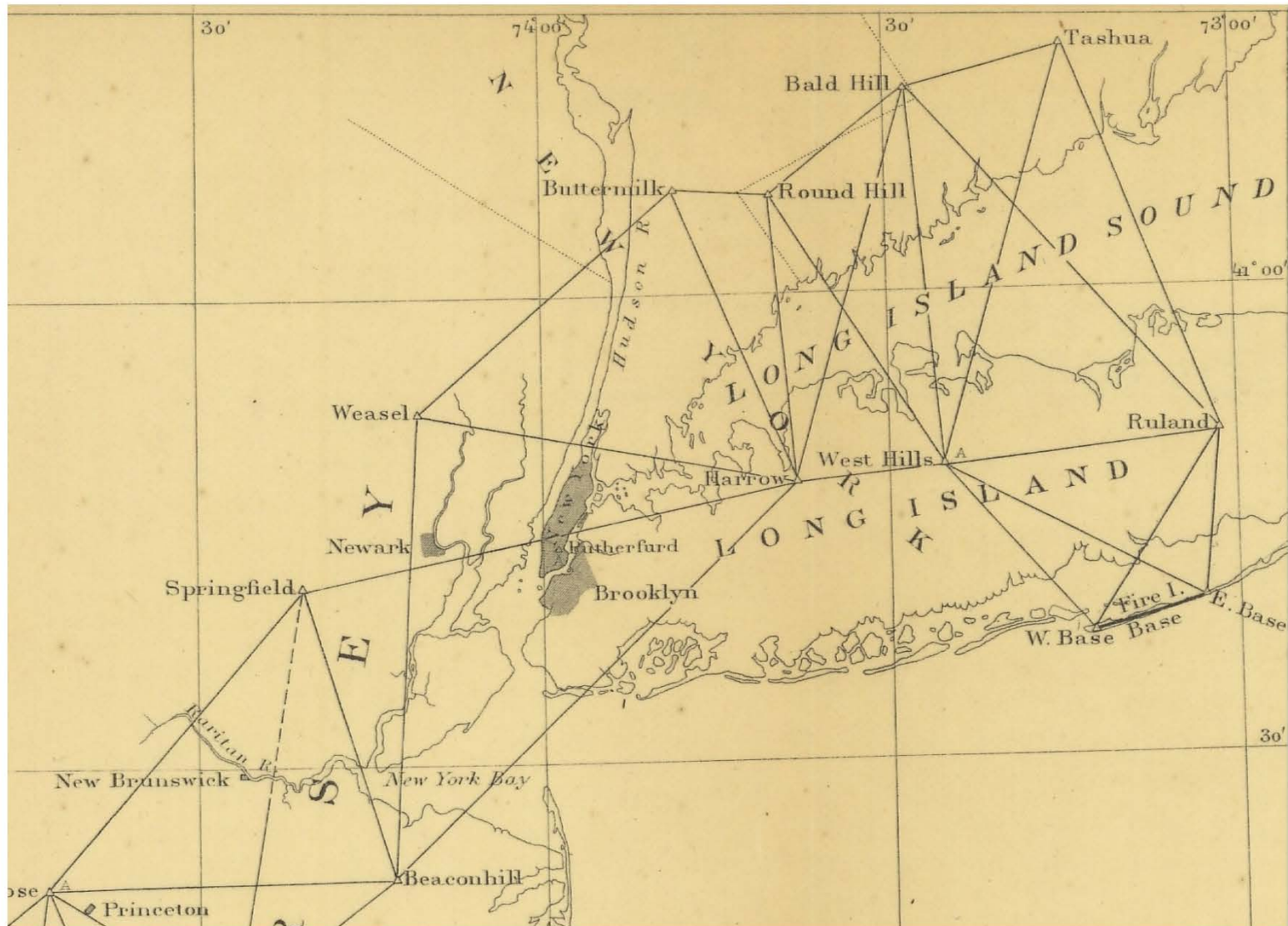
No. 5. (B. H. views)

Northwesterly view of the horizon from Bald Hill (Conn.)

Loaf Hills
As seen from

Signal
Bald Hill.





Ft Washⁿ Ellis' & Bedlow's I

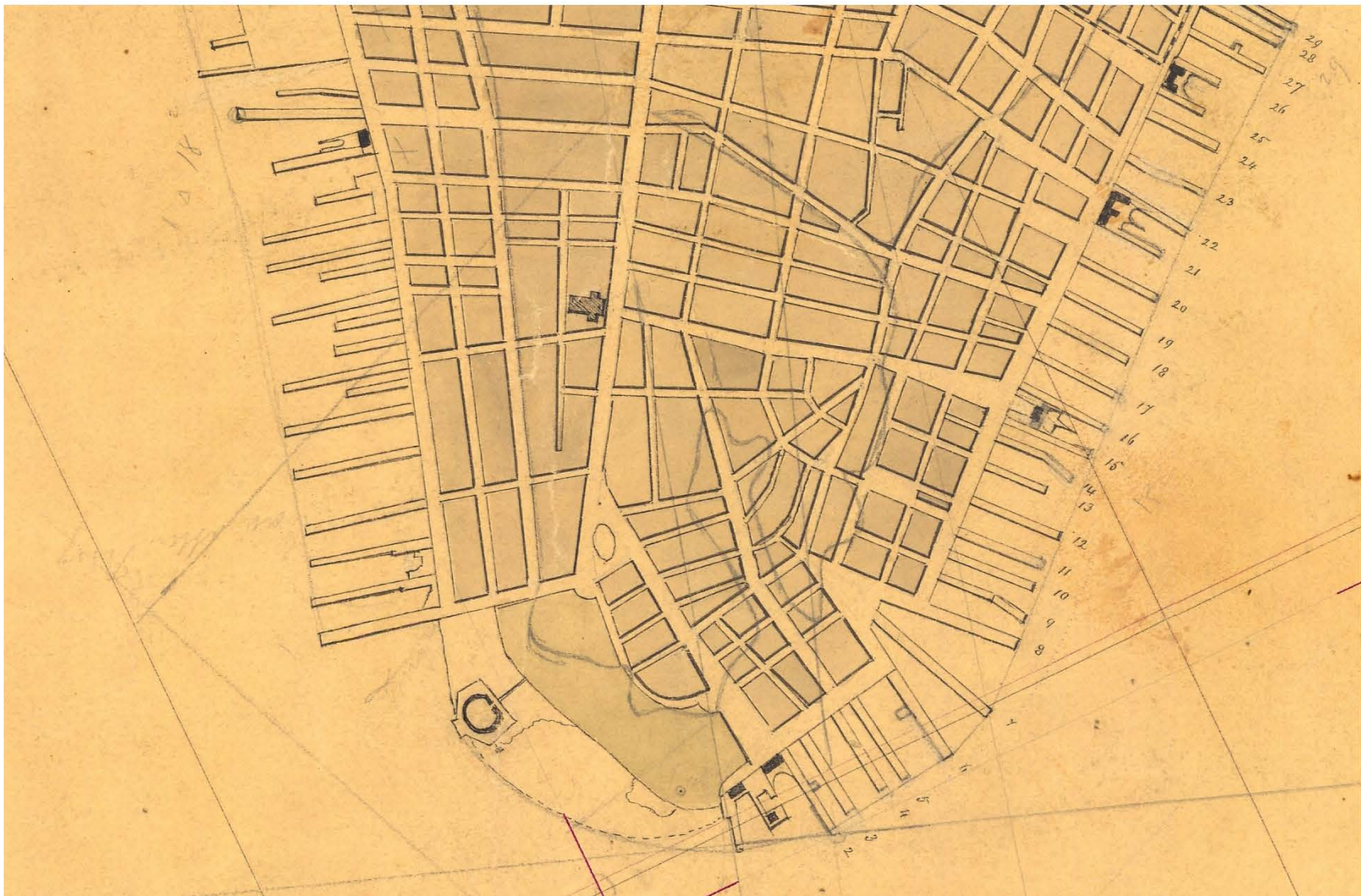


City Hall

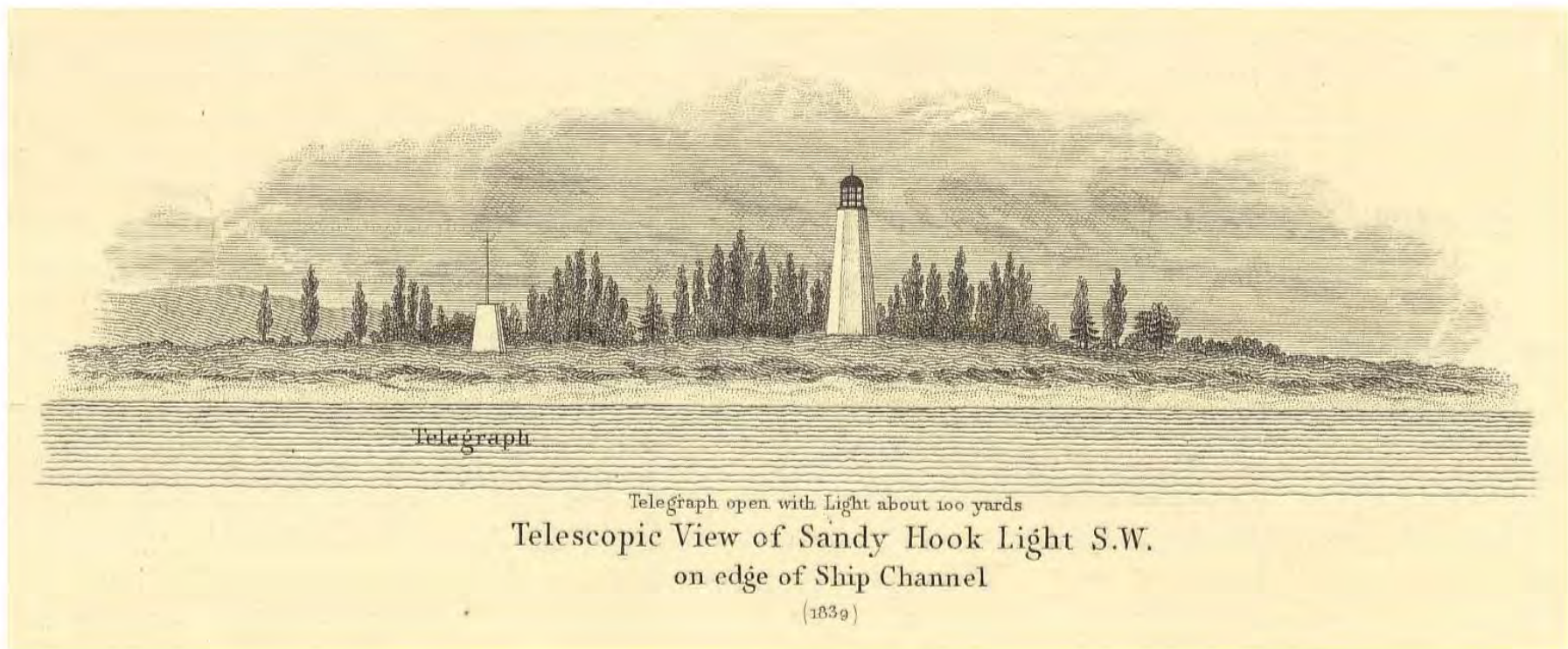


Castle Williams







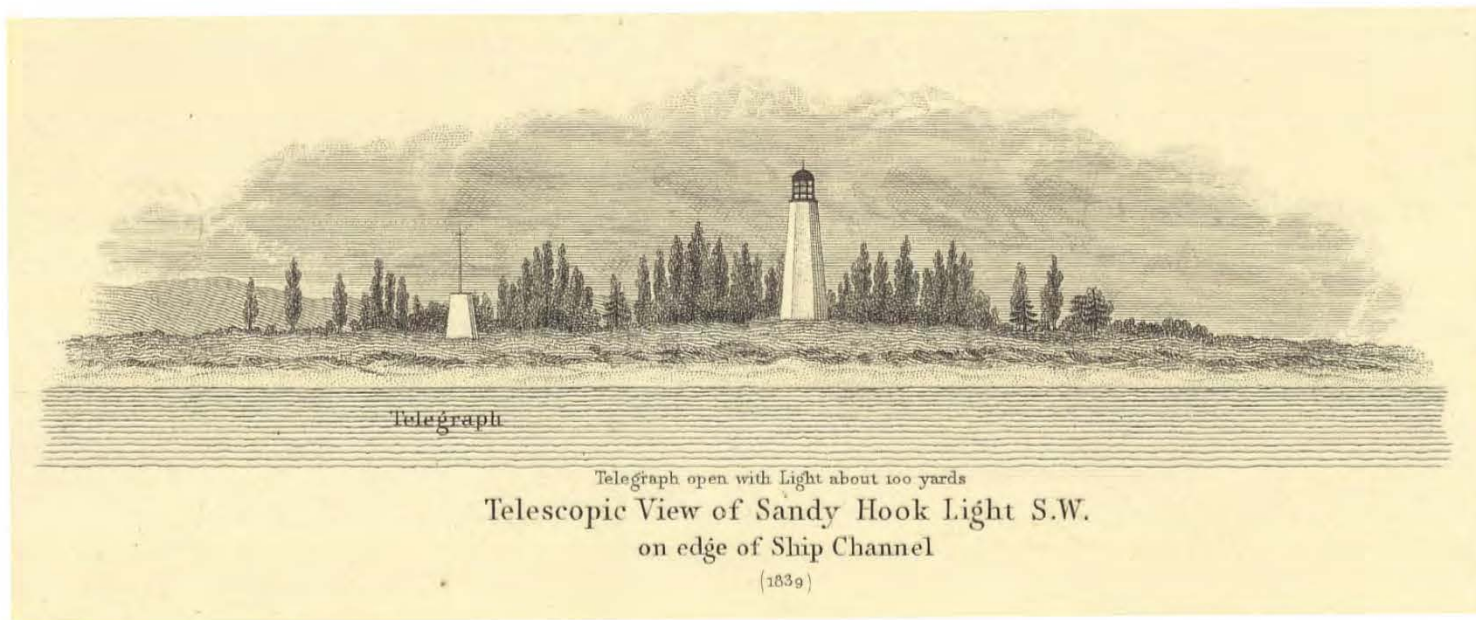


Telegraph

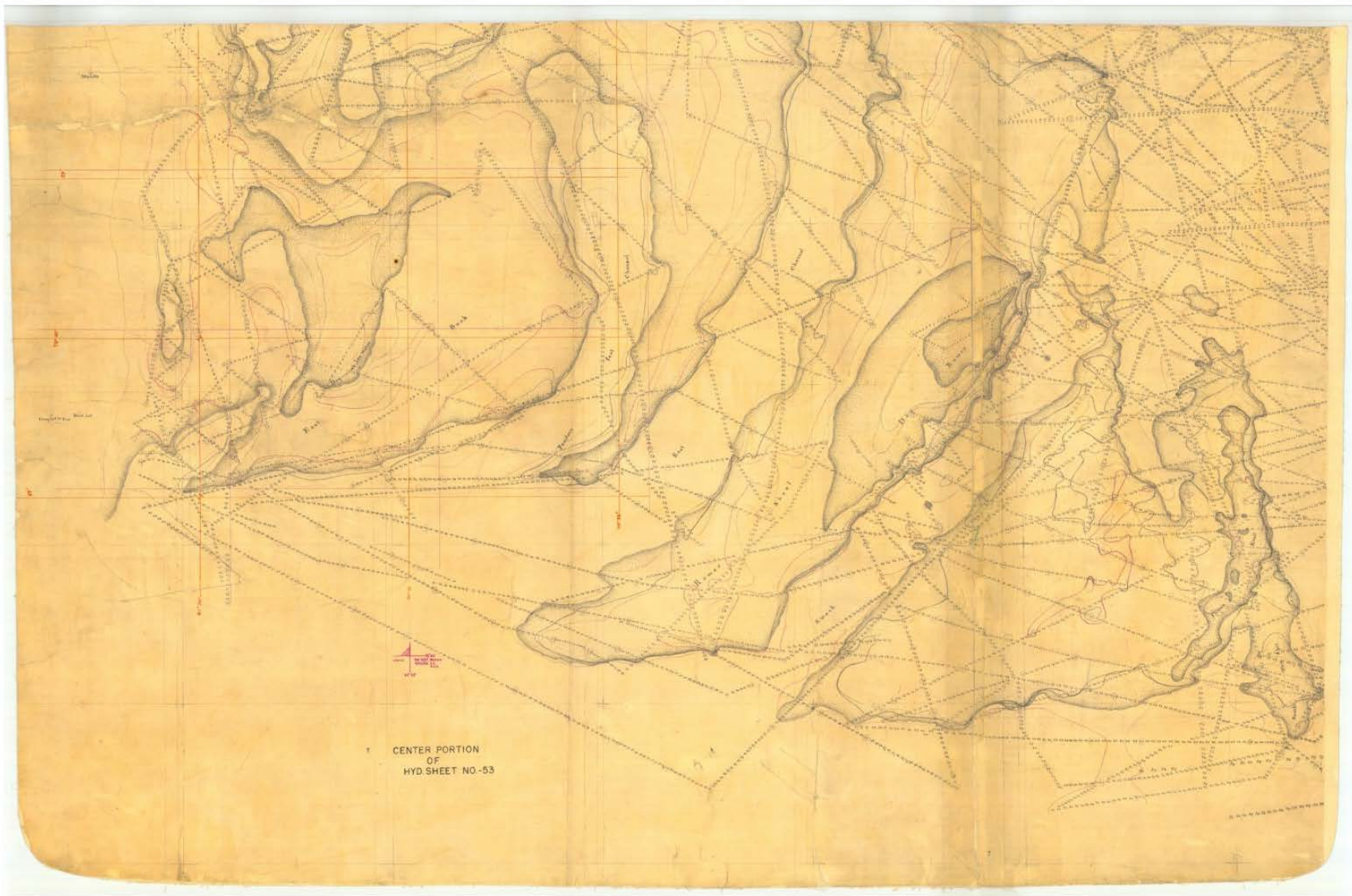
Telegraph open with Light about 100 yards

Telescopic View of Sandy Hook Light S.W.
on edge of Ship Channel

(1839)







CENTER PORTION
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1856-1859
COPIES

or

LETTERS & REPORTS

ON

TIDAL MATTERS

No. 8

U.S. COAST SURVEY

A.D. BACHE Capt.

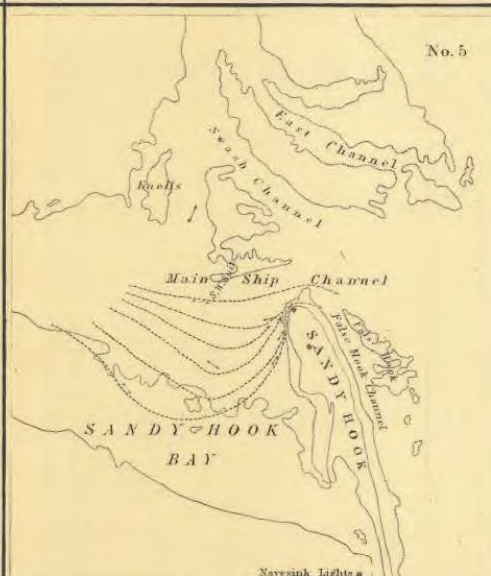
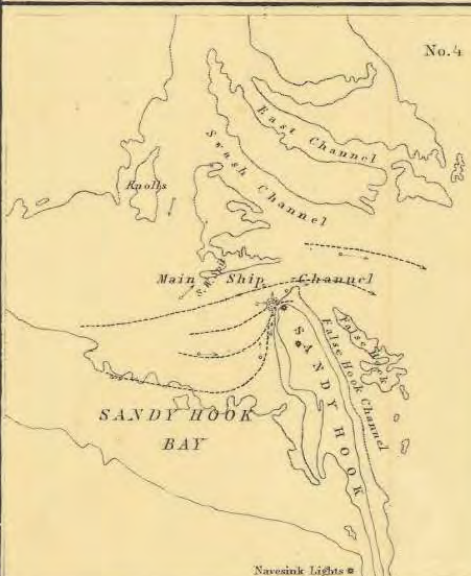
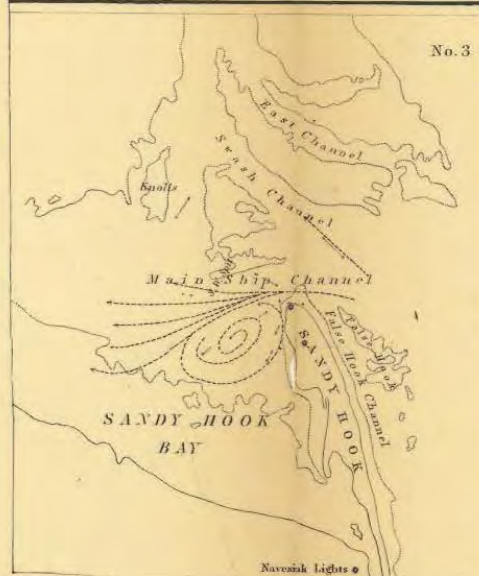
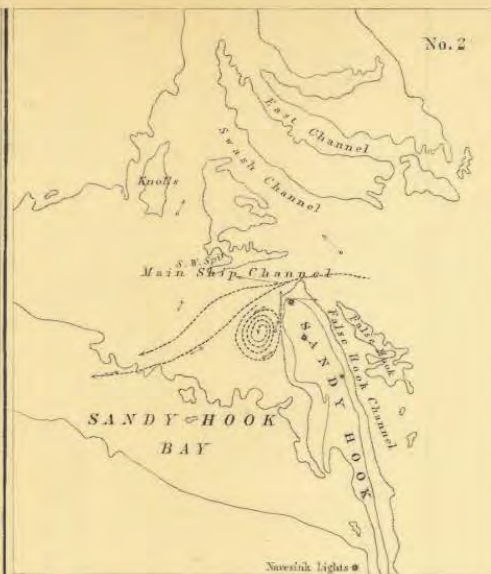
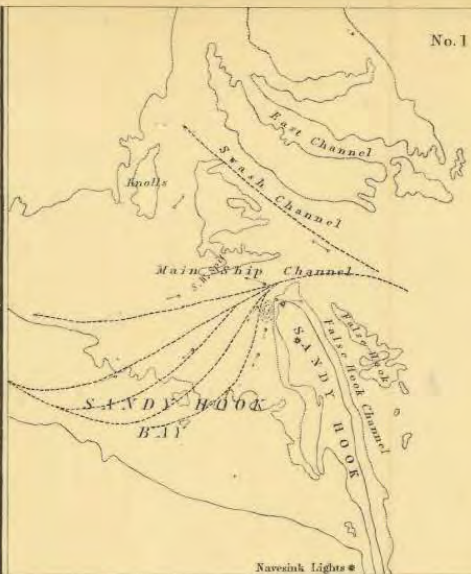
DIAGRAMS Nos. 1 to 5

Showing the set of Currents in

SANDY HOOK BAY

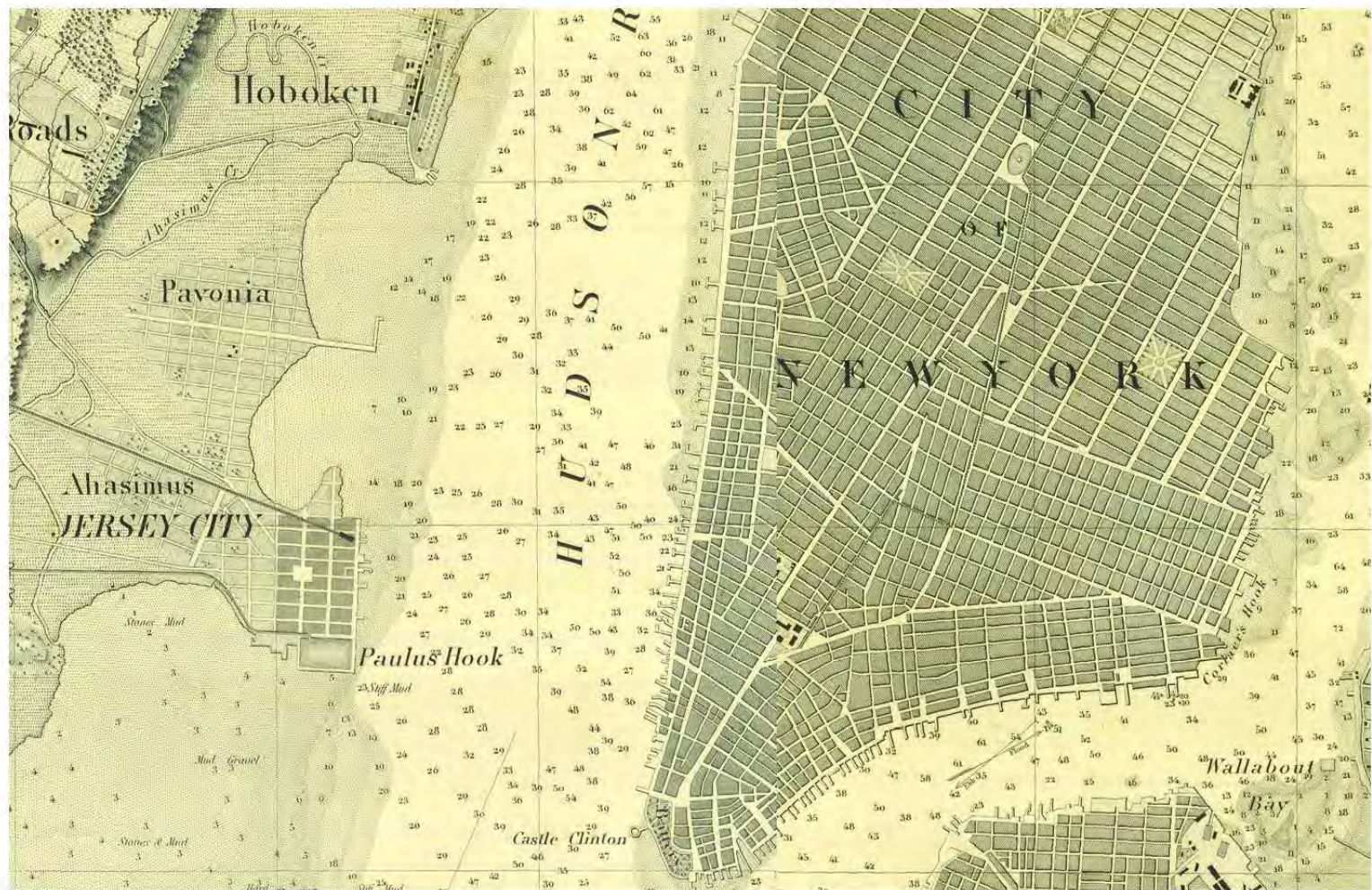
1858

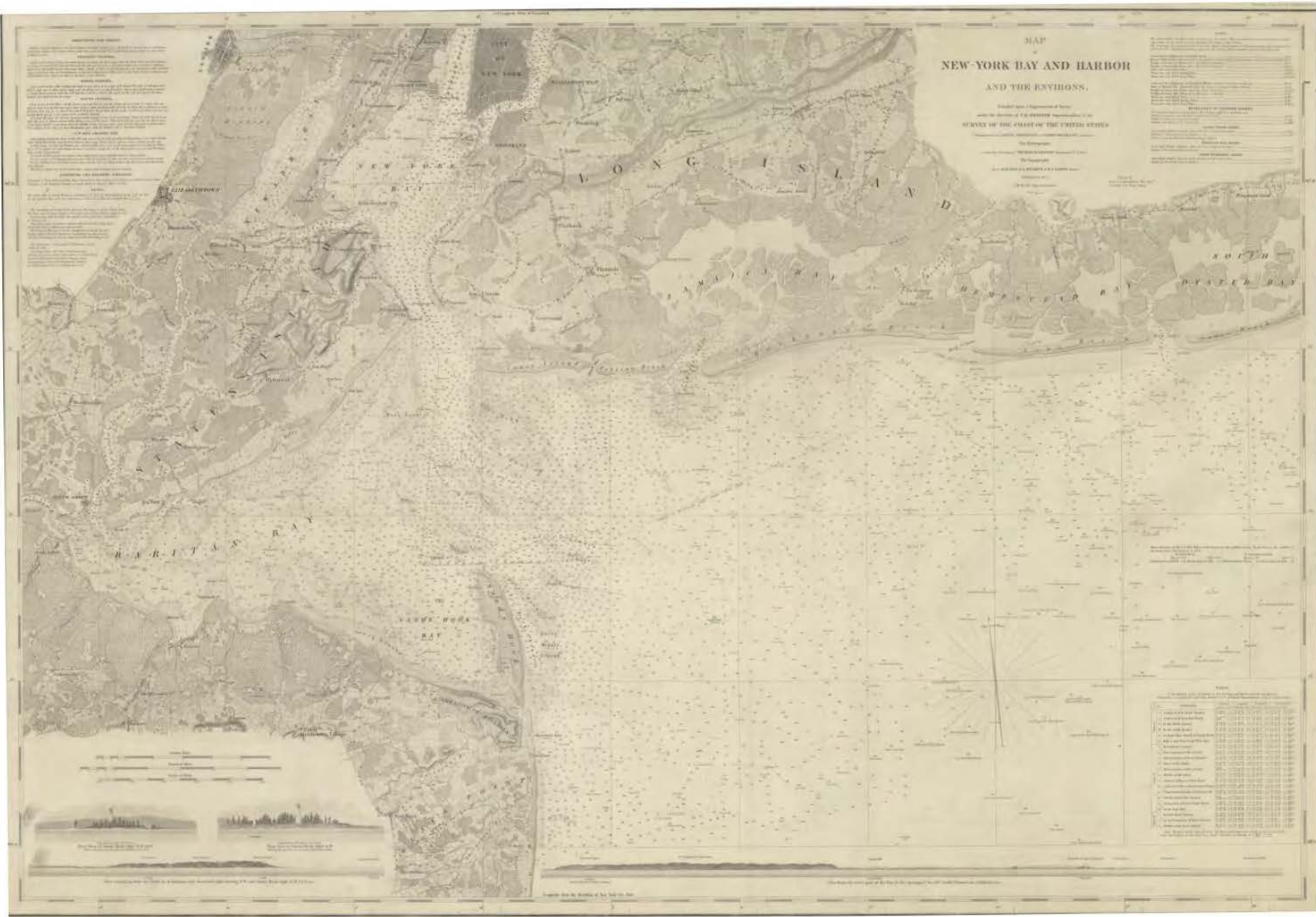
Sketch No. 3





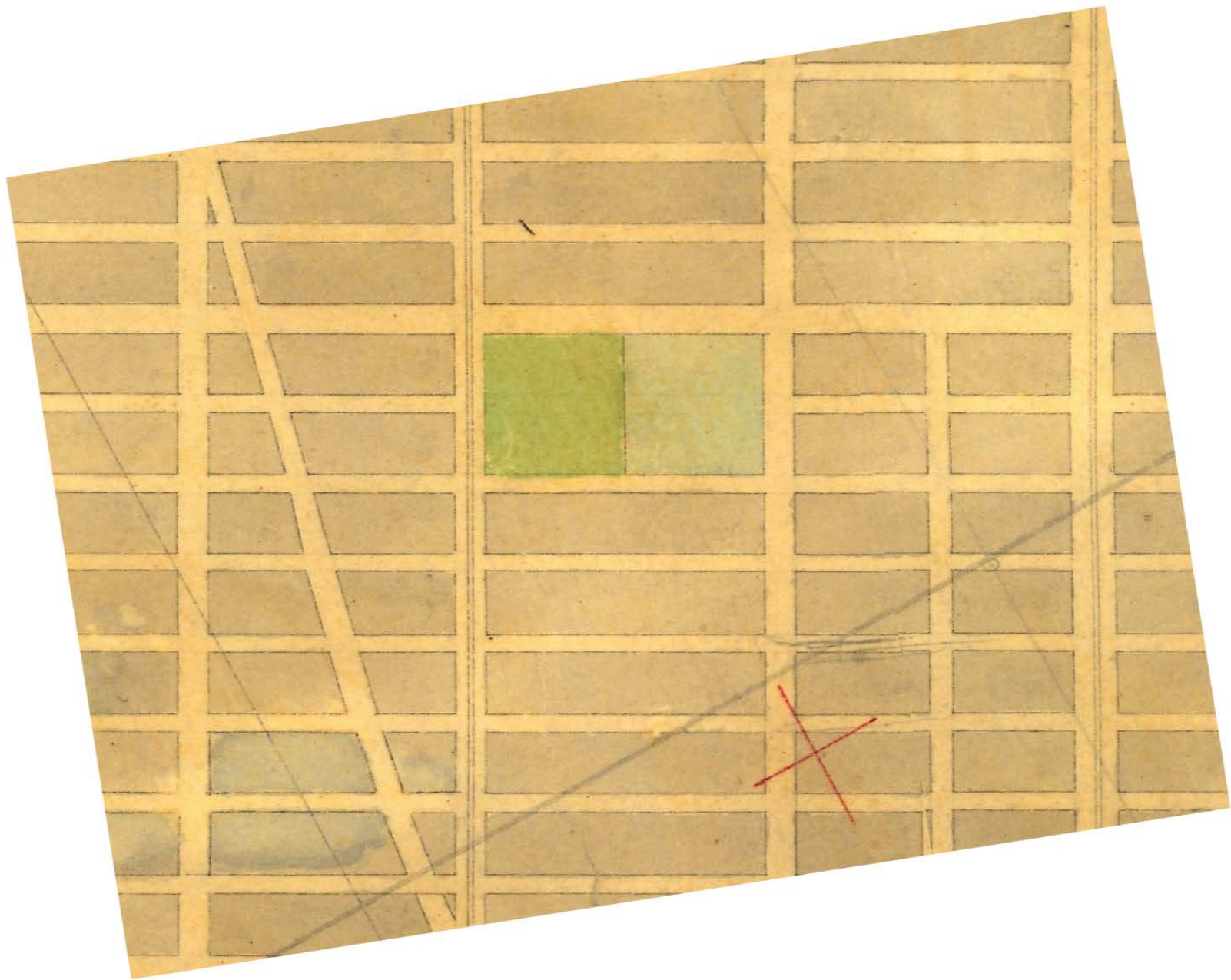














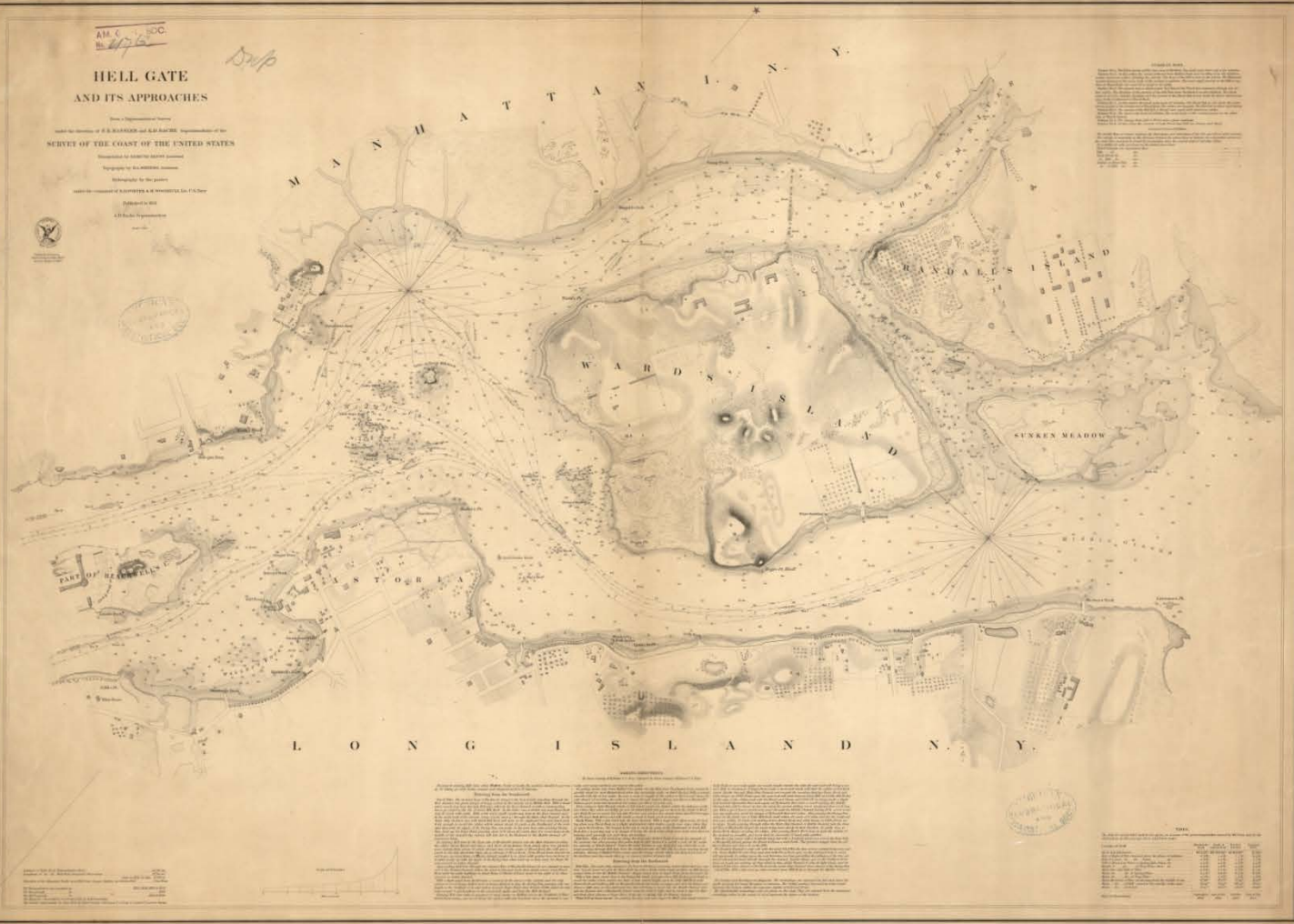
AM. C. 500
No. 476

Dwp

HELL GATE AND ITS APPROACHES

Under the authority of a RESOLUTION and ACT PASSED by the
SENATE OF THE UNITED STATES

Approved by the President



EXPLANATION
The following are the abbreviations used in this chart:
A. Light
B. Buoy
C. Beacon
D. Daymark
E. Bell buoy
F. Fog signal
G. Horn
H. Whistle
I. Bell
J. Bell buoy
K. Bell buoy
L. Bell buoy
M. Bell buoy
N. Bell buoy
O. Bell buoy
P. Bell buoy
Q. Bell buoy
R. Bell buoy
S. Bell buoy
T. Bell buoy
U. Bell buoy
V. Bell buoy
W. Bell buoy
X. Bell buoy
Y. Bell buoy
Z. Bell buoy
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bb. Bell buoy
cc. Bell buoy
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ff. Bell buoy
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xx. Bell buoy
yy. Bell buoy
zz. Bell buoy
AAA. Light
BBB. Light
CCC. Light
DDD. Light
EEE. Light
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HHH. Light
III. Light
JJJ. Light
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MMM. Light
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PPP. Light
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RRR. Light
SSS. Light
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UUU. Light
VVV. Light
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ZZZ. Light
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CCC. Light
DDD. Light
EEE. Light
FFF. Light
GGG. Light
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VVV. Light
WWW. Light
XXX. Light
YYY. Light
ZZZ. Light

NOTES
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VVV. Light
WWW. Light
XXX. Light
YYY. Light
ZZZ. Light

SOUNDINGS	
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Surveyed by J. S. Woodhull, Survey, 1849

Hell Gate Channel

Weir's I. 2

Bank Meadows

Middle Ground

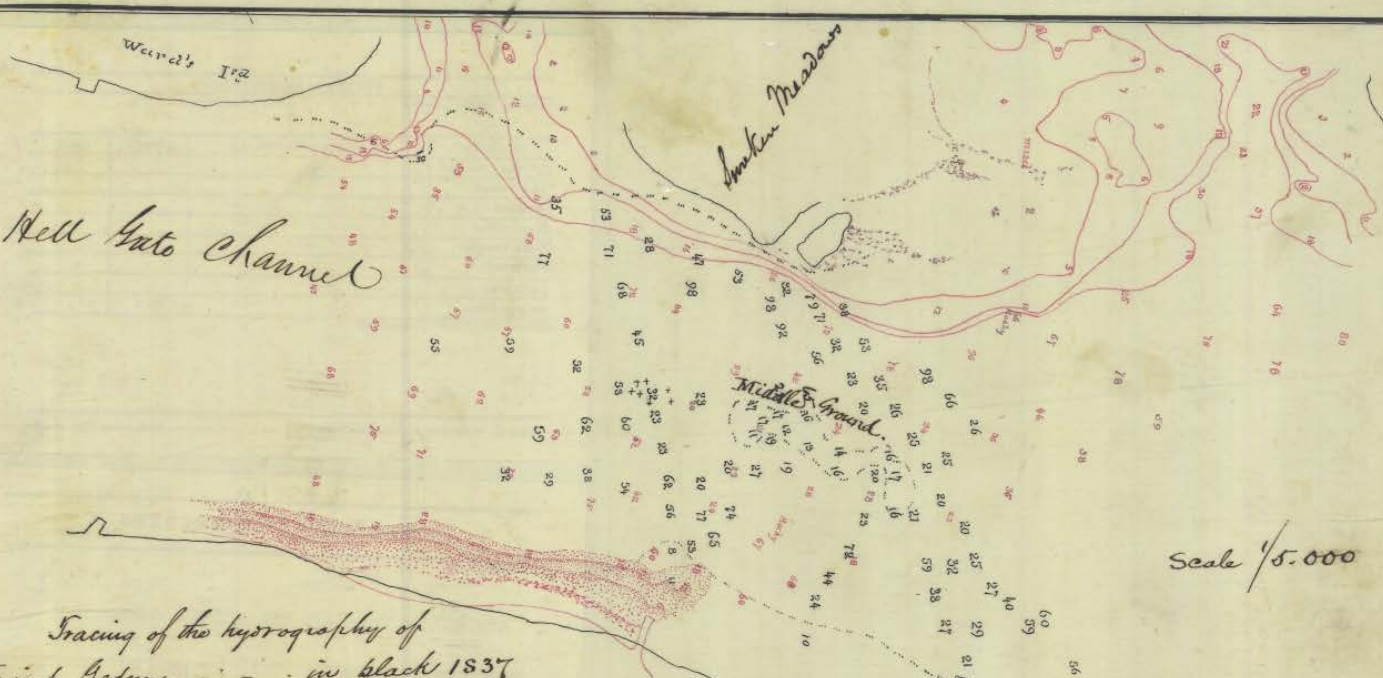
Lawrence's Pt.

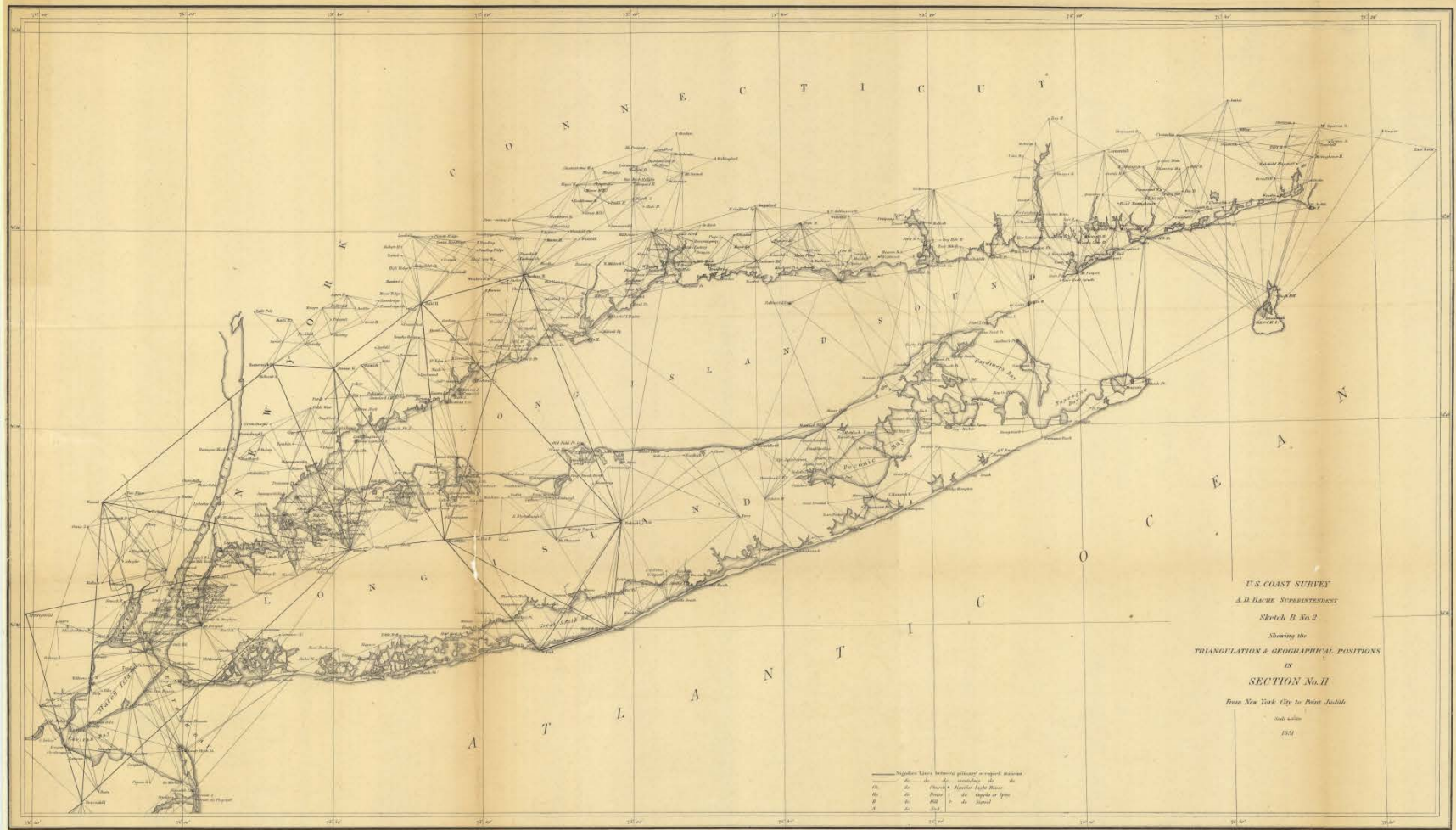
Scale 1/5,000

Tracing of the hydrography of
Sicth. Gedney - - - in black 1837
" Woodhull - - - in red, 1849
to show the comparison of their survey on middle ground,
entrance of Hell Gate Channel.

U.S. COAST & GEODETIC SURVEY
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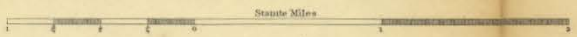
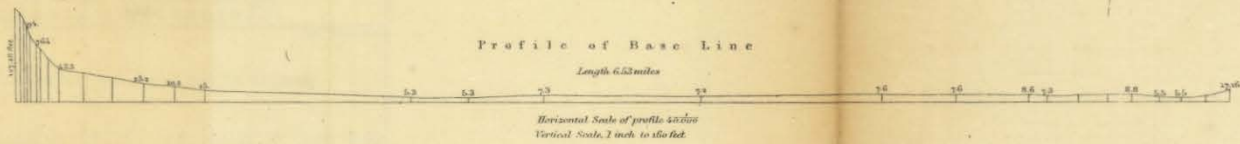


(J No. 5)
 U.S. COAST SURVEY
 A.D. BACHE Supdt.
PULGAS BASE
 CALIFORNIA

By R.D. CUTTS Assistant U.S.C.S.

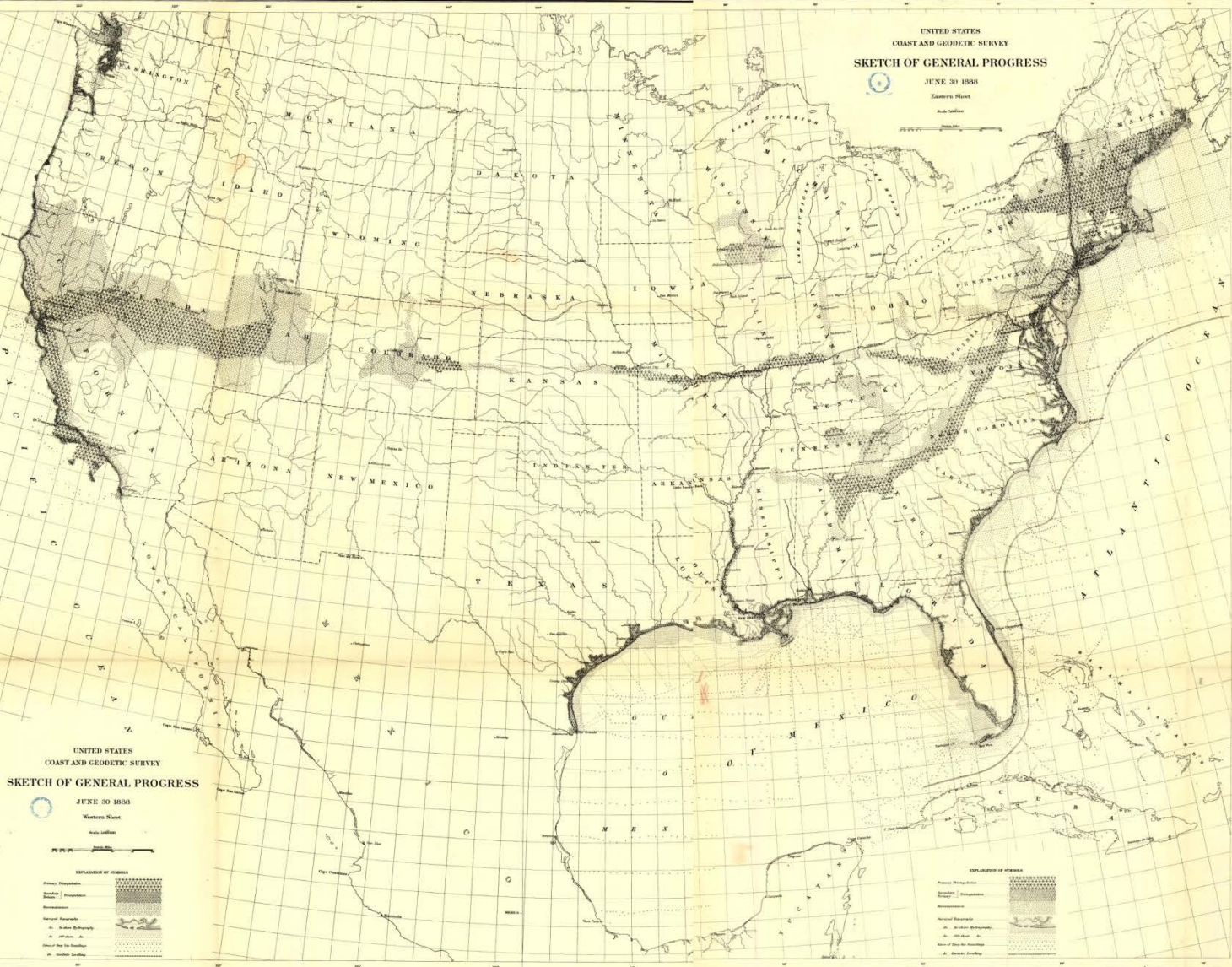
Scale 40' to an

1854



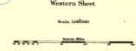
UNITED STATES
COAST AND GEODETIC SURVEY
SKETCH OF GENERAL PROGRESS

JUNE 30 1856
Eastern Sheet



UNITED STATES
COAST AND GEODETIC SURVEY
SKETCH OF GENERAL PROGRESS

JUNE 30 1856
Western Sheet

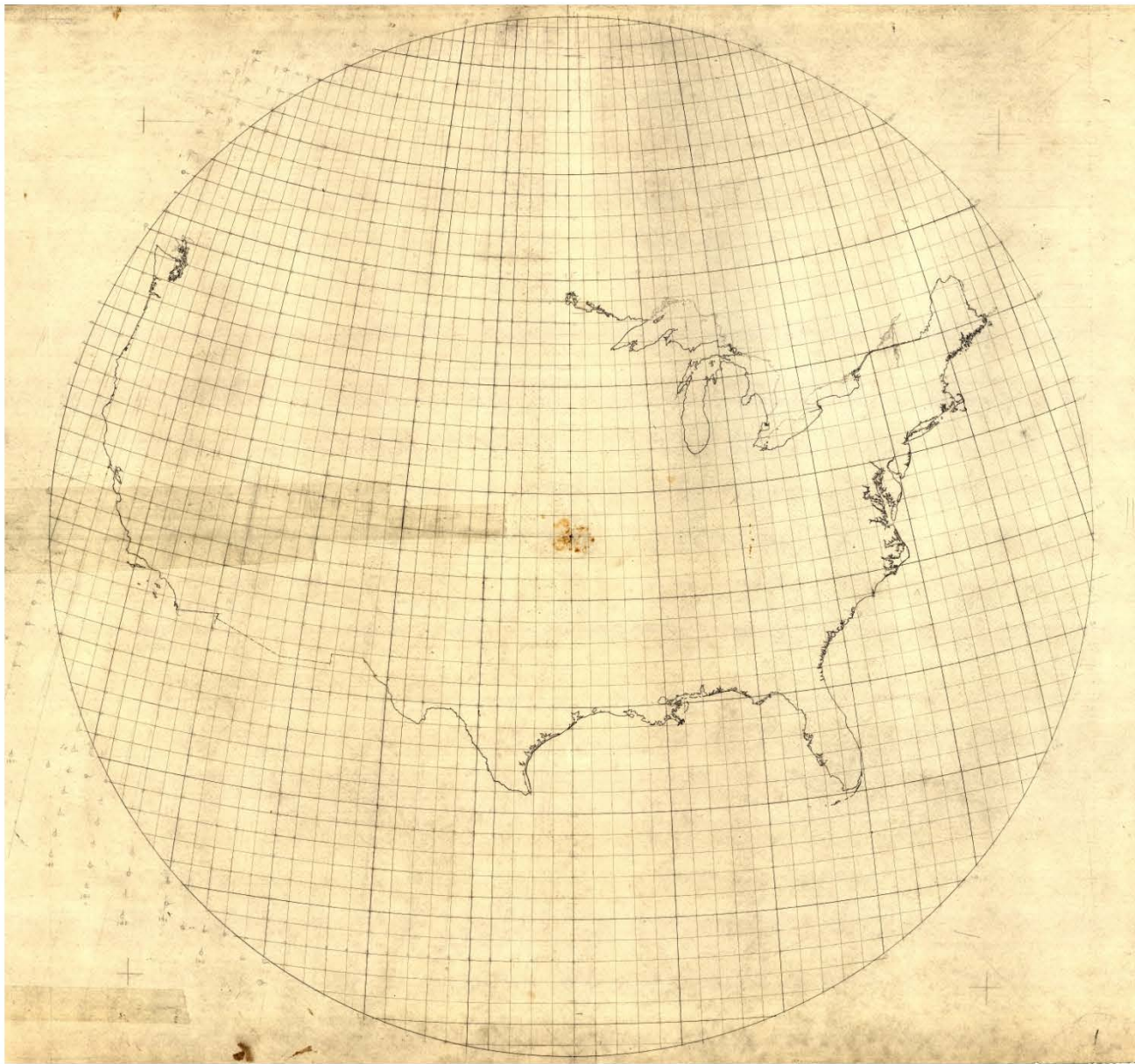


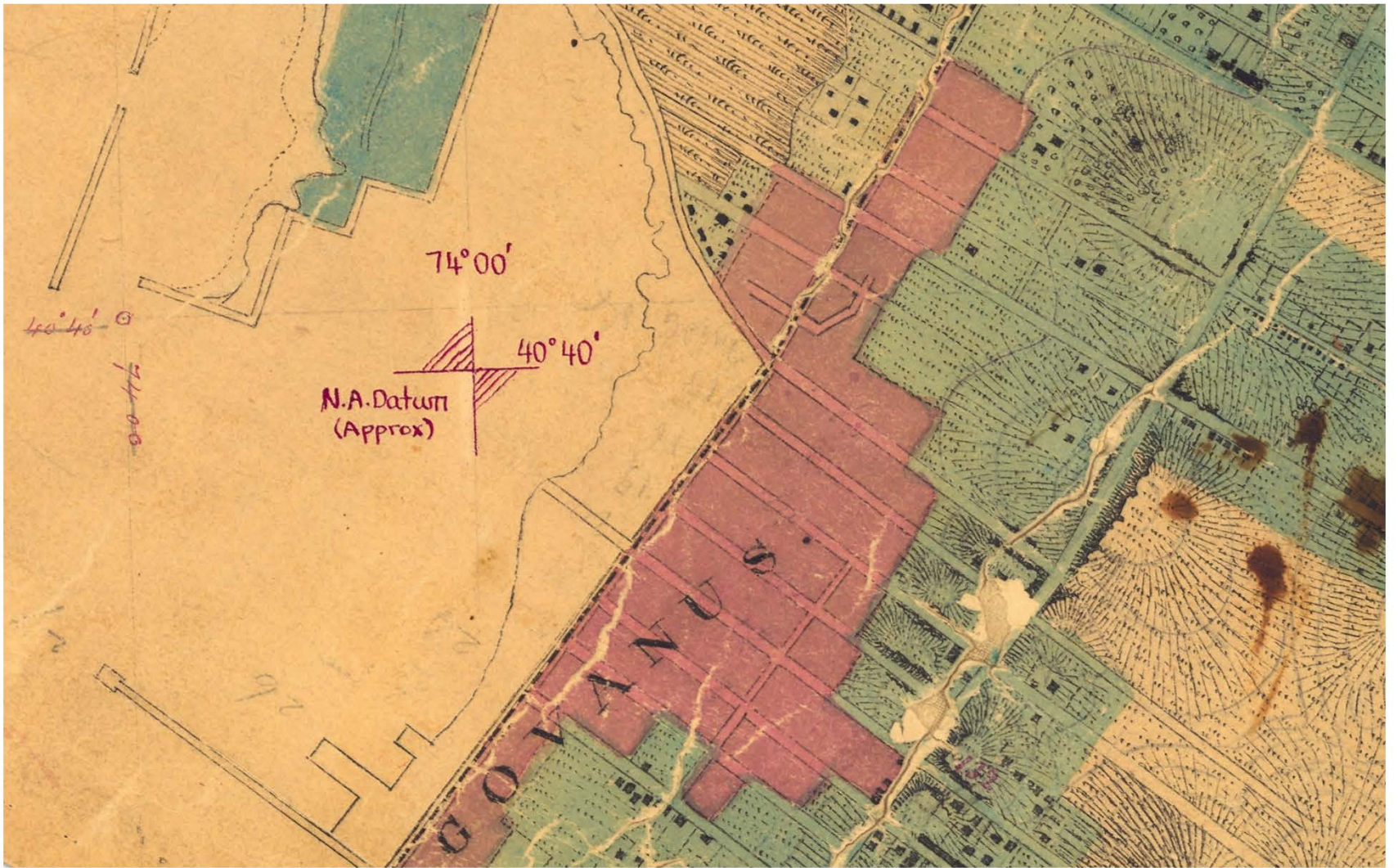
EXPLANATION OF SYMBOLS

Primary Triangulation	
Secondary Triangulation	
Special Operations	
• Survey Stations	
• Observing Stations	
• Station Number	
• Station Name	

EXPLANATION OF SYMBOLS

Primary Triangulation	
Secondary Triangulation	
Special Operations	
• Survey Stations	
• Observing Stations	
• Station Number	
• Station Name	

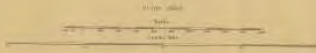






CONEY ISLAND NEW YORK

1874



Notes
This map is based on surveys by J. M. Meade, Lieut. U.S.N., and
others, and is intended to show the general character of the
land and water surface, and the position of the principal
points of interest.

Scale 1:50,000
Total Length 10.000 Miles

