

Magnitude 8.544 digits, or over two-thirds of the Moon, on the northern limb. See the following table.

III. An Annular Eclipse of the Sun, September 28th. Invisible in the United States.

IV. A Partial Eclipse of the Moon, October 13th, in the Evening, Visible. Magnitude, 11.976 digits (nearly total) on the southern limb. See the table.

NOTE.—The beginning of the Eclipse of October 13th, occurs before the Moon rises in the United States, hence that body will rise with the Eclipse upon it. The time of rising will be about 5 o'clock 17 minutes, and the size of Eclipse $3\frac{1}{2}$ digits in most of the States.

PRINCIPAL PLACES.	ECLIPSE OF APRIL 20TH.—MORNING.			ECLIPSE OF OCTOBER 13TH.	
	Begins.	Middle.	Ends.	Middle.	Ends.
Boston.....	2 50	4 22	5 55	6 10	7 44
Providence.....	2 49	4 21	5 54	6 9	7 43
Newport.....	2 49	4 21	5 54	6 9	7 43
Hartford.....	2 44	4 16	5 49	6 4	7 38
New Haven.....	2 42	4 12	5 45	6 2	7 36
Troy.....	2 40	4 10	5 43	6 0	7 34
New York.....	2 38	4 8	5 41	5 58	7 32
Newburgh.....	2 38	4 8	5 41	5 58	7 32
Philadelphia.....	2 34	4 4	5 39	5 54	7 28
Utica.....	2 34	4 4	5 39	5 54	7 28
Anburn.....	2 28	4 0	5 33	5 48	7 22
Rochester.....	2 23	3 55	5 28	5 43	7 17
Buffalo.....	2 19	3 51	5 24	5 39	7 13

TIDE TABLE.

The Tides given in the Calendar pages are for the Port of New York.

In the last column but one of the Calendar pages, you have the time the Moon is South, and by adding thereto the hours and minutes in the following table, you will have the time of High Water at all the places named below; also the rise of water in feet.

	h.	m.	ft.		h.	m.	ft.		h.	m.	ft.
Albany, N. Y.	3	30	1	Egg Harbor, Gt.	9	34	5	Montauk Point,	7	33	
Amboy, N. J.,	8	15	5	Egg Harbor, Litt.	10	3	5	Mount Desert,	11	2	25
Baltimore,	1	36	3	Elizabeth Point,	8	57	5	Nantucket,	12	0	11
Bay of Fundy,	12	00	60	Fairfield, Conn.,	10	58	6	Narrows, N. Y.,	8	2	6
Blue Hill Bay,	11	00	12	Guildford, Conn.,	10	23	5	New Bedford,	7	39	6
Boston,	11	30	11	Halifax, N. S.,	7	30	9	New Haven,	10	17	5
Bridgeport, Ct.,	10	54	5	Hampton, N. H.,	11	15	12	New London,	8	56	8
Brunswick, N. J.,	9	5	5	Hampton Roads,	8	37	5	Newport,	7	51	
Campo Bello,	11	00	25	Hartford, Conn.,	9	25		NEW YORK,	8	56	6
Cape Ann,	11	30	11	Hell Gate,	9	35	6	Norwalk, Conn.,	10	54	
Cape Cod,	11	30	6	Huntington, L. I.,	11	30	6	Norwich,	10	56	
Cape Fear,	8	1	5	Islip, L. I.,	8	6	6	Philadelphia,	2	0	
Cape Hatteras,	9	1	5	Jamaica Bay,	8	0	5	Portland,	10	45	13
Cape Henlopen,	5	45	5	Kennebunk, Me.,	11	15	10	Portsmouth, N. H.,	11	15	10
Cape Henry,	7	51	6	Kingston, N. Y.,	2	30	2	Providence,	8	25	5
Castine, Me.,	11	00	12	Lubec,	11	30	26	Sag Harbor,	9	52	
Charleston,	7	15	5	Marblehead,	11	30	10	Sandy Hook,	6	37	5
Eastport, Me.,	11	30	25	Martha's Vineyard,	7	37		St. John's,	12	30	30

The time of High Water here found, is nearly accurate on the days of the New and Full Moon. In the First and Third Quarters, it is too late, at most, 1 hour and 9 minutes. In the Second and Fourth Quarters, it is too early, at most, 24 minutes.

The actual rise of the Tides depends on the strength and direction of the Wind, and it not unfrequently happens that a Tide which would, independently of these, have been small, is higher than another, otherwise much greater. But when a Tide which arrives when the Sun and Moon are in a favorable position for producing a great elevation, is still further increased by a very strong wind, the rise of the water will be uncommonly great, sufficient, perhaps, to cause damage.

1. JANU

Moon

New Moon
First Quar
Full Moon
Last Quar

Day of Mon.	Day of Week	
1	Tue	Cir
2	Wed	h s
3	Thu	Q s
4	Fri	Q n
5	Sat	En.
6	F	●
7	Mon	Da
8	Tue	B.
9	Wed	Sat
10	Thu	●
11	Fri	Dr
12	Sat	Ma
13	F	Da
14	Mon	Br
15	Tue	Q s
16	Wed	H
17	Thu	B.
18	Fri	h
19	Sat	Da
20	F	●
21	Mon	
22	Tue	h s
23	Wed	W
24	Thu	Da
25	Fri	Co
26	Sat	Mo
27	F	Se
28	Mon	♂
29	Tue	h
30	Wed	V
31	Thu	♀