

4. APRIL.

Begins on Tuesday, has 30 days.

1856.

Moon's Phases.

	D.	H.	M.	
New Moon,	5	0	57	M.
First Quarter,	11	11	56	E.
Full Moon,	20	4	18	M.
Last Quarter,	27	6	31	E.

PROB. 7.—The greatest diameter of an octagon is 18, required its inscribed square.

PROB. 8.—Required the largest 8-sided figure that can be inscribed in a square, whose side is 20 inches.

PROB. 9.—How many trees can be planted in a circular garden, 10 rods in diameter, they not being within 10 feet of each other, nor within $2\frac{1}{2}$ feet of the fence?

PROB. 10.—If the diameter of the earth be 8,000 miles, and a hole perforated through it

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	Sun rises. H. M.	Sun sets. H. M.	Sun's dec. N. °	Moon's place.	Moon rises. H. M.	Moon south. H. M.	High water. H. M.
1	Tue	Daybreak 4 11.	5 43	6 17	4 49	V3	4 9	8 59	5 22
2	Wed	Jefferson bo. 1743.	5 42	6 18	5 12	W	4 31	9 53	6 51
3	Thu	♂ ♀ and ♀. Fair	5 41	6 19	5 35	W	4 50	10 45	7 49
4	Fri	♂ in perigee. and	5 40	6 20	5 58	✕	sets.	11 37	8 36
5	Sat	♀ so. 10 22. mild.	5 38	6 22	6 20	✕	7 19	ev. 29	9 15
6	E	♀ in Aph. Begins	5 37	6 23	6 43	♀	8 36	1 22	9 57
7	Mon	Daybreak 3 59. to	5 36	6 24	7 6	♀	9 53	2 17	10 39
8	Tue	look like Spring.	5 34	6 26	7 28	♂	11 6	3 14	11 18
9	Wed	Peace with Eng. '84.	5 33	6 27	7 50	♂	morn.	4 13	11 58
10	Thu	♂ highest. Perhaps	5 32	6 28	8 12	♂	0 30	5 11	morn.
11	Fri	♀ so. 10 26. snow.	5 30	6 30	8 34	♂	1 14	6 7	0 41
12	Sat	H. Clay born 1777.	5 29	6 31	8 56	♂	2 12	6 59	1 27
13	E	Daybreak 3 47.	5 28	6 32	9 18	♂	2 40	7 47	2 27
14	Mon	♂ near Regulus.	5 26	6 34	9 40	♂	3 13	8 31	3 51
15	Tue	♀ so. 10 28. Rain,	5 25	6 35	10 1	♂	3 38	9 13	5 22
16	Wed	♂ in apogee. with	5 24	6 36	10 22	♂	4 1	9 52	6 40
17	Thu	B. Franklin d. 1790.	5 23	6 37	10 43	♂	4 20	10 31	7 34
18	Fri	Moon near ♂. hail	5 21	6 39	11 4	♂	4 40	11 10	8 12
19	Sat	Daybr'k 3 38. and	5 20	6 40	11 25	♂	rises.	11 51	8 40
20	E	4th Sun. aft. Easter.	5 19	6 41	11 45	♂	7 15	morn.	9 13
21	Mon	Byron d. 1824. wind,	5 18	6 42	12 6	♂	8 20	0 34	9 43
22	Tue	Venus so. 10 32. or	5 16	6 44	12 26	♂	9 26	1 20	10 12
23	Wed	♂ s. 10 14. perhaps a	5 15	6 45	12 46	♂	10 34	2 9	10 42
24	Thu	Josi. Quincy d. 1775.	5 14	6 46	13 5	♂	11 36	3 3	11 13
25	Fri	Daybr'k 3 26. storm.	5 13	6 47	13 25	♀	morn.	3 59	11 48
26	Sat	Gen. Pike shot 1813.	5 12	6 48	13 44	♀	0 32	4 57	ev. 20
27	E	Rogation Sunday.	5 10	6 50	14 3	V3	1 18	5 54	1 12
28	Mon	J. Monroe bo. 1758.	5 9	6 51	14 22	V3	1 58	6 50	2 12
29	Tue	♂ so. 9 45. Windy.	5 8	6 52	14 41	W	2 31	7 43	3 35
30	Wed	♂ near Nept. Fair.	5 7	6 53	14 59	W	2 58	8 34	5 5

centrally, how long would a ball be in reaching the centre, if it be placed within said hole, which is supposed to be a vacuum, and what velocity will it acquire at that point?

5. MAY.

Moon

New Moon,
First Quarter,
Full Moon,
Last Quarter

Day of Mon.	Day of Week.	F Ch
1	Thu	St. P
2	Fri	♂ in
3	Sat	♂ 6th S
4	E	♂ ne
5	Mon	♂ ne
6	Tue	Bat.
7	Wed	Dayb
8	Thu	♂ hig
9	Fri	♂ so.
10	Sat	Riot
11	E	Pente
12	Mon	♂ eas
13	Tue	Dayb
14	Wed	♂ apc
15	Thu	Puebl
16	Fri	♂ so.
17	Sat	John.
18	E	Trinit
19	Mon	Daybr
20	Tue	♂ ent
21	Wed	St. H
22	Thu	Moon
23	Fri	J. Ran
24	Sat	Coper
25	E	Daybr
26	Mon	Joh. C
27	Tue	♀ near
28	Wed	N. We
29	Thu	Cap. 1
30	Fri	Moon
31	Sat	L