

1856.

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° and 60°.
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this rests

high, and
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t in going
ndulum is

on High
th. water.
M. H. M.

34 10 26

17 10 54

4 11 21

55 11 51

48 morn.

44 0 25

41 1 6

37 1 59

31 3 18

23 4 59

15 6 26

6 7 22

58 8 7

53 9 29

51 10 11

51 10 52

53 11 35

53 ev. 20

50 1 7

42 2 8

30 3 34

14 5 6

55 6 22

34 7 15

13 7 55

52 8 28

32 8 57

15 9 27

1 9 56

51 10 25

11. NOVEMBER. Begins on Saturday, has 30 days. 1856.

Moon's Phases.

	D.	H.	M.	
First Quarter,	5	0	27	E.
Full Moon,	12	3	59	M.
Last Quarter,	19	5	38	M.
New Moon,	27	11	5	M.

intended to vibrate seconds, loses 3 minutes per day. How much must it be shortened to keep correct time?

PROB. 28.—How much more weight will a hollow cylinder bear laterally, that is 2 feet in diameter outside, and $1\frac{1}{2}$ feet inside, than another that is of the same length and weight that is not hollow?

PROB. 29.—A rail 3 inches square passes through the corners of a square fence post,

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	Sun rises. H. M.	Sun sets. H. M.	Sun's dec. S. °	Moon's place.	Moon sets. H. M.	Moon south. H. M.	High water. H. M.
1	Sat	Daybreak 4 57.	6 52	5 8	14 40	♐	7 7	2 44	10 56
2	E	24th Sun. aft. Trin.	6 53	5 7	14 59	♐	8 1	3 39	11 29
3	Mon	☾ so. 9 8. Fair	6 54	5 6	15 18	♐	9 4	4 34	morn.
4	Tue	Ft. Erie taken 1814.	6 55	5 5	15 36	♐	10 14	5 29	0 6
5	Wed	☾ so. 1 38. and	6 57	5 3	15 54	♐	11 26	6 22	0 48
6	Thu	Bat. Lubec. 1806.	6 58	5 2	16 12	♐	morn.	7 13	1 45
7	Fri	Daybreak 5 4.	6 59	5 1	16 30	♐	0 40	8 3	3 2
8	Sat	☉ near ☾. warm.	7 0	5 0	16 47	♐	1 45	8 52	4 31
9	E	Deluge began 2348 B. C.	7 1	4 59	17 4	♐	3 8	9 42	5 49
10	Mon	☾ so. 9 39. Rain	7 2	4 58	17 21	♐	4 23	10 35	6 47
11	Tue	☉ in perigee. with	7 3	4 57	17 38	♐	rises.	11 31	7 36
12	Wed	Moon ☉ ♄. cold	7 4	4 56	17 54	♐	4 50	morn.	8 19
13	Thu	Daybreak 5 10.	7 5	4 55	18 10	♐	5 37	0 31	9 4
14	Fri	☉ 180° E. of Sun.	7 7	4 53	18 26	♐	6 33	1 34	9 49
15	Sat	☉ highest. nights	7 8	4 52	18 41	♐	7 36	2 37	10 34
16	E	☾ in Aphelion. and	7 9	4 51	18 56	♐	8 43	3 37	11 18
17	Mon	☾ so. 8 11. frosty	7 10	4 50	19 10	♐	9 50	4 33	ev. 6
18	Tue	☾ sou. 1 58. ones.	7 11	4 49	19 25	♐	10 55	5 24	0 55
19	Wed	Daybreak 5 15.	7 11	4 49	19 39	♐	11 58	6 10	1 51
20	Thu	Fair and clear.	7 12	4 48	19 52	♐	morn.	6 53	2 57
21	Fri	Sun enters ♍. Cold	7 13	4 47	20 5	♐	0 59	7 33	4 14
22	Sat	☾ farthest south.	7 14	4 46	20 18	♐	1 57	8 12	5 21
23	E	27th Sun. aft. Trin.	7 15	4 45	20 31	♐	2 55	8 50	6 21
24	Mon	☾ Stat. and disa-	7 16	4 44	20 43	♐	3 55	9 30	7 10
25	Tue	Daybreak 5 21.	7 17	4 43	20 54	♐	4 58	10 13	7 47
26	Wed	☉ near ☾. greeable.	7 17	4 43	21 6	♐	6 1	10 58	8 26
27	Thu	Neptune Stationary.	7 18	4 42	21 16	♐	sets.	11 47	8 58
28	Fri	☾ in ☉. Cloudy.	7 19	4 41	21 27	♐	5 3	ev. 39	9 32
29	Sat	Moon lowest.	7 20	4 40	21 37	♐	5 56	1 34	10 6
30	E	1st. Sun. in Advent.	7 20	4 40	21 47	♐	6 58	2 30	10 42