## The Messenger Almanac.

Last Quarter, Nov. 7th, 1h.  New Moon, "13th, 8h.  First Quarter, "20th, 2h.  Full Moon, "28th, 4h.  Day SUN. MOON.    W.   Rise.Sets.   Rises. South. Set	41m. A. 43m. A. High Tide s. at Halifax
11C 16 AV A ABI B 131 1 141 0	
2 SU. 6 43 4 44 7 3 2 53 10 4 Tu. 6 46 4 41 9 1 3 44 11 5 W. 6 47 4 40 10 6 4 33 A. 6 Th. 6 49 4 39 11 14 5 21 0 7 Fr. 6 50 4 38 M 6 9 1 9 Su. 6 53 4 35 1 34 7 42 1 0 M. 6 55 4 34 2 45 8 30 2 11 Tu. 6 56 4 32 4 2 9 22 2 12 W. 6 58 4 31 5 23 10 17 3 13 Th. 6 59 4 30 6 43 11 15 3 14 Fr. 7 0 4 29 8 4 A. 20 4 15 Sa. 7 2 4 28 9 19 1 26 5 16 SU. 7 3 4 27 10 18 2 30 6 17 M. 7 4 4 26 11 6 3 31 7 18 Tu. 7 5 4 25 11 44 4 27 9 19 W. 7 7 4 24 A. 13 5 18 10 20 Th. 7 8 4 23 0 37 6 4 11 5 7 8 4 23 0 37 6 4 11	53 9 14 43 9 46 28 10 19 5 10 55 36 11 38 4 A. 31 26 1 34 50 2 51 15 4 5 42 5 6 11 5 59 47 6 45 36 7 31 36 8 20 42 9 8 56 9 57

THE TIDES.—The column of the Moon's Southing gives the time of high water at Parrsboro, Cornwallis, Horton, Hantsport,

25 Tu. 7 15 4 20 2 27 9 37 3 45

26 W., 7 16 4 19 2 55 10 22 4 47

27 Th. 7 17 4 19 3 29 11 10 5 49

28 Fr.. 7 18 4 18 4 10 11 59 6 51

29 Sa., 7 19 4 18 5 0 M. 7 48

30 SU. 7 21 4 17 5 55 0 50 8 40

Windsor, Newport, and Truro. High water at Pictou and Cape Tormentine, 2 hours and 11 minutes LATER than at Halifax. At Annapolis, St. John, N.B., and Portland Maine, 3 hours and 25 minutes LATER, and at St. John's, Newfoundland, 20 minutes EARLIER, than at Halifax. At Charlottetown, 2 hours 56 minutes LATER. A Westport, 2 hours 54 minutes LATER. A Yarmouth, 2 hours 20 minutes

FOR THE LENGTH OF THE DAY.-Add 12 hours to the time of the sun's setting, and from the sum subtract the time of rising. FOR THE LENGTH OF THE NIGHT.-Subtract the time of the sun's setting, from 12 hours and to the remainder add the time of rising next morning.

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#### SCIENCE.

DISTANCE OF THE STARS .- Every star in the sky seems, when seen from the earth, to describe each year in the sky an orbit precisely the same as that of the earth herself seen from the star, an enormous circle more than one hundred and eighty millions of miles in diameter, which, as viewed by the stellar observer, will be more or less eliptical according to the angle at which he looks down upon the plane of our movement. Of course, as the motion of the star in this apparent orbit is continually contrary to the real motion of the earth, the star must always be in that point of its path just opposite to the earth's position, and it will take six months for it to go from one side to the other. The radius or semidiameter of this apparent annual orbit of the star, expressed in in seconds of arc, is called its parallax. and when this is found it is a perfectly simple thing to compute its distance. Now at first, one would think there ought to be no difficulty in detecting a motion of one hundred and eighty millions of miles in six months; but such are the celestial spaces that even this distance, vast as it is, shrinks almost to nothing. At a distance of twenty miles. a second would be a little less than six inches, so that at that distance the pole star's parallax would be but a little more than a quarter of an inch (more exactly, 0.28 of an inch ) An ordinary human hair would subtend the same angle at a distance of a quarter of a mile.

Photographer (about to remove the screen from the camera): " All ready! That is very good; but could't youah-put a little intelligence into your

#### AGRICULTURE.

A NOVEL POTATO CONTEST .- A novel contest, in the cultivation of the potato, has been going on the past summer among a few members of the Franklin, Mass., Farmer's club, which may prove of interest to others outside the association. The contest was started by Monroe Morse, a successful cultivator of this crop, who challenged any or all the members of the Club to compete with him for the largest and best crop of potatoes grown upon a single square rod of ground, the competitor who should show the best yield being entitled to the product of all the other competing rods-size and smoothness both to be considered. Competitors were required to plant from the same lot of seed, a barrel of Early Rose, purchased in Boston, being provided by the challenger for that purpose. Ten members accepted the challenge, making the number of competitors eleven. The potatoes grown were placed on exhibition at the meeting of the Club, at the residence of Wm. E. Nason, October 4, and statements concerning the methods of culture placed on file with the Secretary. The reports show as wide a difference in the methods adopted as in the quantity and qualtity of the crops presented. Below we give the names of the competitors, with the number of pounds grown by each, commencing with the smallest vield :-

smallest yield.—	
S. F. Sargent 38½	pounds.
A. C. Bullard 56	- "
Wm. Mann 76	"
Wm. Adams 78	
G. S. Hancock 91	"
Monroe Morse 93	"
James Mood125	1 "
Alfred Clark132	
S. W. Squire159	
A. W. Cheever183	"
TI D TI	

V. R. Warren was a competitor, but by mistake his rod was dug and the potatoes consumed without weighing. The small yields obtained by Messrs. Sargent Bullard, Mann, Hancock and Morse were due solely to the failure of the seed in germinating-more than half of Mr. Sargent's failing to grow, and nearly half of those planted by Messrs. Mann, Hancock and Morse. To promote smoothness, Mr. Sargent laid dry way being from two to three rods. straw iu the bottom of the drills, planting the seeds upon the top and then covering with soil. For the same purpose Mr. Bullard used forest leaves in the bottom of his drills. As the season some time afterwards, this proved a serious damage, although the quality of which had started. their product was unexcelled. Messrs. pally guano and other commercial ferti-lizers. Mr. Adams, we believe, ap-and with an equally favorable season spent lye, and from this or other causes | year .- New England Farmer.

had a very inferior crop of scabby potatoes. Mr. Squire used Peruvian guano at the rate of 800 pounds per acre, and sulphate of potash 200 pounds. per acre. Mr. Hancock applied a twohorse cart load of stable manure to the rod, ploughing in, and nine pounds guano sprinkled in the hills. Mr. Cheever ploughed in a light coat of manure, and applied guano and sulphate of potash, at the rate of 1000 pounds of the former and 400 of the latter per acre. Mr. Morse used 800 pounds of guano and 200 pounds of potash per acre. Mr. Clark applied stable manure freely and watered the ground occasionally after the potatoes were growing, with a solution of hog manure and poultry droppings. Mr. Hood used a spoonful of Bradley's superphosphate in the hill. Messrs Hancock, Hood and Adams had each about fifty hills. while Mr. Clark had 125 hills. Mr. Squire planted in five double rows or drills, the seed being just twelve inches apart each way with room for horse cultivation between. Mr. Morse practiced horse cultivation exclusively, never using a hand hoe at all, either in covering or tending the crop, while Messrs. Clark. Hood and Cheever cultivated by hand exclusively. Mr. Squire cut his seed in halves, planting one piece in a place, Mr. Mann used pieces with two eyes. while most of the others were cut to single eyes. Mr Hood cut his seeds two weeks before planting, and found it much dried, but only one hill failed. The lots were planted from May 7th to June 8th, and were dug at three different periods, several competitors being in each case present and taking a hand in the measuring of the land and weighing the

By mutual agreement the competitors were required to act also as judges and after inspecting the several yields, they unanimously decided that the 183 pound lot, though not quite equal in quality to two or three of the smaller lots, was nevertheless, on account of both quality and quantity, entitled to the first place on the list. The 1013 pounds of potatoes grown on ten square rods by ten competitors, was, therefore, awarded to A. W. Cheever, who, in response to the announcement stated that, although at the earnest solicitation of his friend Mr. Morse, the challenger, he had joined in the competition, and had done his best to give some one a handsome yield of potatoes, yet with his well-known views concerning the injurious tendency of all forms of games of chance in which some men's luck is another man's loss, he could accept only those grown upon his own plot; and as parties had expressed a desire to secure seed for planting from those trial lots, he would direct that they be sold at auction, the proceeds to be placed in the treasury of the Club, to be used toward paying for a lecture during the coming winter. The other competitors agreeing to the same arrangement, the whole lot was sold, netting the Club the sum of \$11.47, thus closing a competitive trial in which valuable experience had been gained by all and with out loss to any.

The following is the statement of A. W. Cheever. The land on which I grew the trial rod of potatoes has been under cultivation several years, producing chiefly forage crops. Last year it produced a crop of rye fodder and a crop of oat fodder, and those were followed by a crop of barley, each crop being manured either with stable manure or commercial fertilizers. The soil is a heavy loam exposed to the east. Before planting, about 800 pounds of guano, and 400 pounds of sulphate of potash, per acre, were spread broadcast over the furrows. The seed was prepared by exposure several days to a strong light, to start the sprouts into a short healthy growth. When ready to plant, single eyes were cut from the seed, selecting only those which were well started and of good strong appearance. The pieces were dropped singly and about fourteen inches apart, the whole amount of ground planted in this

The sets were covered by hand not over an inch deep. Just as the shoots were breaking ground, the plot was dusted over with guano, at the rate of 200 pounds per acre, and then raked was day at the time of planting, and for into the soil with a garden rake, killing at the same time, all the small weeds

The most important lesson I have Hancock, Clark, Adams and Hood de- learned by the experiment is that potapended chiefly upon stable manure, toes must have room to grow under while Messrs. Morse, Bullard, Sargent, ground, or the yield will be diminished Squire, Mann and Cheever nsed princi- and the quality impaired. I would plied considerable potash in the form of should expect to do better another

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Miles.	GOING V	VEST.	Express Daily.	Pass. & Frgt. Mon., Wed. & Fri.	Preight, Tues., Thu., and Saturday.
18 25 37 53	Windsor Wolfville Kentville,  Berwick Wilmot, Annapolis,	Leave do Arrive Leave Leave Arrive	9 45 10 40 11 00 11 15 11 46	1 15 1 45 2 20 3 12 4 27	5 45 6 56 7 20
	St. John,	do	7 30		I
Miles.	GOING	BAST.	Pass. and Freight Mon. Wed. and Fri.	Passengers & Frgt. Tues., Thurs., & Sat.	Express Daily.
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