ONTARIO FARMER'S ALMANAC.

The satellites of Jupiter are invisible from March 19th to May the 14th, the planet being too near the Sun.

Explanation of the Calendar Pages.

Column

1 & 2 Contains the days of the month ond week.

8 & 4 The rising and setting of the Sun's upper limb in Mean time.

5 The time of the Sun's passing the meridian the difference of which from noon will give the equation of time.

6 & 7 The rising and setting of the Moon in Mean time.

8 The time of the Moon's southing or passing the Meridian.

The letter a signifies morning or that part of the astronomical day from " Midnight to Noon, and p afternoon or from Noon to Midnight.

The top of each page gives the Moon's phases, or times of New and Full Moon, and of the first and last quarters, or two quadratures with the Sun. And the Sun's declination or distance North or South of the Equator for four days in the month.

The Day.

The day of Nature, being strictly the time required for one rotation of the earth on its axis, is 28 hours, 56min., 4sec., '1. In that time, a star, comes round to appear in the same place where we had formerly seen it, but the earth, having an additional motion on its orbit round the sun requires about 3 minutes, 56 seconds more, or 24 hours in all to have the sun brought round to appear in the same place; in other words, for any place on the surface of the earth to come to the same meridian. Thus arises the difference between a sidereal day and a solar day, between ap. parent and mean time. Among the nations of antiquity, there were no divisions of the day beyond what were indicated by sunrise and sunset. Even among the Romans for many ages, the only point in the earth's revolution of which any public notice was taken was midday, which they used to announce by the sound of trumpet, whenever the sun was observed shining between the Forum and a neighbouring building. To divide the day into a certain number of parts was, an arbitrary arrangement, which only could be adopted when means had been invented of measuring time. There is no allusion to hours in the Bible till we come to the book of "Then Daniel whose name Daniel who lived 552 years before Christ. was Belteshazzar, was astonished for one hour, and his thoughts troubled him." The Jews and Romans alike, on introducing a division of the day into twenty-four hours. assigned equal numbers to day and night without reference to the varying length of these portions of the solar day ; consequently an hour with them was a varying quantity of time according to Afterwards the plan of an equal division the seasons and the latitude. was adopted, as was also that of dividing an hour into 60 minutes and a minute into 60 seconds. While the day absolute is readily seen to be measured by a single rotation of our globe on its axis, the day practical is a very different affair. Every meridian has its own practical day. Consequently, the denomination of a day reigns over the earth during two of its rotations, or 48 hours. Another result is, that in a circumnavigation of the globe, you gain a day in reckoning by going eastward, and lose one by going westward, a fact that was first revealed to mankind at the conclusion of Magellan's voyage in 1522, when the surviving seamen finding themselves a day behind their countrymen, accused each other of sleeping

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