

tions for *latitude* to be applied to the times of *setting* given in pp. 6, 7, 8, of the Calendar, in order to find the times at which the Moon sets at other stations, may be found approximately from lat. 42° to lat. 48°, by multiplying the numbers in the adjoining column by the numbers of degrees by which the latitude exceeds 5°. If the latitude be less than 45°, the signs of the corrections must be changed. The corrections for latitude 49½ and 50° will be more near the truth, if the multipliers (which, according to the preceding rule, would be 4 and 5) be taken as 4½ and 5½.

The corrections for latitude to be applied to the times of *rising* are the same as those used for setting, but with the *signs* changed.

In strictness, two corrections for longitude are required,—one due to the motion of the moon in Right Ascension during the interval that elapses between her rising (or setting) at stations in different longitudes; and the other due to the change in the moon's declination during

the same interval. The average value of the first of these corrections is about two minutes to be added for each hour or for each fifteen degrees of longitude west of the central meridian, 4h. 46m.; the corrections being subtracted when the place is to the east of the central meridian.

The correction for change of declination may be disregarded.

The last column in each month on pp. 6, 7, 8, shows the time to which a watch should be set when the sun is due south, or when the shadow falls on the noon mark of a sun dial.

The times of the rising and setting of the sun and moon on pp. 6, 7, 8, without modification, will serve with sufficient exactness for Halifax, Montreal and Ottawa; and by the rules given above they may be adapted to all other stations. On pp. 9, 10, 11, 12, 13, 14, special tables are also given, showing the local civil times at which the sun and moon rise and set at Toronto and Fort Garry, two extreme stations as regards latitude.

JEWISH CALENDAR FOR 1878.

5638.	1878.	5638.	1878.
Shebat.....	Jan. 5	Ab.....	July 31
Adar.....	Feb. 3, 4	".....	9 " 19
Adar Shen	March 5, 6	Elul.....	Aug. 8
" 13	" 18	5639 A. M.	" 29, 30
" 14, 15	" 19, 20	Tishri....	Sept. 28, 29
Nissan.....	April 4	" 3	" 30
15, 16	" 18, 19	" 10	Oct. 17
21, 22	" 24, 25	" 15, 16	" 12, 13
Iyar.....	May 3, 4	" 21	" 18
" 21	" 21	" 22	" 19
Sivan.....	June 2	" 23	" 20
" 6, 7	" 7, 8	Heshvan.	" 27, 28
Tamuz.....	July 1, 2	Kislev....	Nov. 26, 27
" 17	" 18	" 25	Dec. 21
		Tebel, 26, 27	" 6, 7
		" 8	" 27

SOVEREIGNS OF EUROPE, &c.

State.	Sovereigns and their Titles.	Date of Birth.	Accession.
Austria.....	Francis Joseph I., Emperor of ...	18 Aug. 1830	2 Dec. 1848
Baden.....	Frederick, Grand Duke of.....	9 Sept. 1826	5 Sept. 1866
Bavaria.....	Louis II., King of.....	25 Aug. 1845	10 Mar. 1864
Belgium.....	Leopold II., King of.....	9 April, 1835	10 Dec. 1865
Brazil.....	Pedro II., Emperor of.....	2 Dec. 1825	7 April 1831
Denmark.....	Christian IX., King of.....	8 April 1818	15 Nov. 1863
Egypt.....	Ismail Pasha, Khedive.....	26 Nov. 1816	18 Jan. 1863
France.....	Marshal MacMahon, President.	13 July, 1808	— May 1873
Germany.....	William I., Emperor of.....	22 Mar. 1797	18 Jan. 1871
Great Britain.....	Victoria, Queen of.....	24 May, 1819	20 June 1837
Greece.....	George I., King of the Greeks....	24 Dec. 1845	6 June 1863
Hesse Darmstadt.....	Louis III., Grand Duke of.....	9 June, 1806	16 June 1848
Holland.....	William III., King of.....	19 Feb. 1817	17 Mar. 1849
Italy.....	Victor Emanuel II., King of.....	14 Mar. 1820	23 Mar. 1849
Mecklenburg Schwerin	Frederic Francis, Grand Duke of.	28 Feb. 1823	7 Mar. 1842
Mecklenburg Schrelitz.	Frederic William, Grand Duke of.	17 Oct. 1819	6 Sept. 1860
Oldenburg.....	Nicolas, Grand Duke of.....	8 July 1827	27 Feb. 1863
Persia.....	Nasr-ed-Deen, Shah..... 1830	— Oct. 1848
Portugal.....	Louis I., King of.....	31 Oct. 1838	11 Nov. 1861
Rome.....	Pius IX., Pope.....	13 May 1792	16 June 1846
Russia.....	Alexander II., Emperor of.....	29 April 1818	2 Mar. 1855
Saxe Coburg and Gotha	Ernest II., Duke of.....	21 June 1818	29 Jan. 1844
Saxe Meiningen.....	George, Duke of.....	2 April 1826	20 Sept. 1866
Saxe Weimar.....	Charles Alex'der, Grand Duke of.	24 June 1818	8 July 1853
Saxony.....	Albert, King of.....	23 April 1828	29 Oct. 1873
Spain.....	Alfonso I.....	28 Nov. 1857	31 Dec. 1874
Sweden and Norway...	Oscar II., King of.....	21 Jan. 1829	18 Sept. 1872
Turkey.....	Abdul Hamid II., Sultan of.....	22 Sept. 1842	31 Aug. 1876
United States(America)	Ruth'ford. B. Hayes, President of.	4 Mar. 1877
Wurtemberg.....	Charles I., King of.....	6 Mar. 1823	25th June 1864