

may be viewed in Manitoba, as the line of the central eclipse passes over the North Western confines of that province. The central line extends from the Arctic Ocean 5d. of lat. north of Iceland, south westwardly across Habitable Greenland, Baffin's Bay, Hudson's Strait, Hudson's Bay, thence over the Washingtonian Provinces of Montana and Oregon, terminating in the midst of the North Pacific Ocean where it ends at sunrise, having commenced at sunset in the Irish and Scottish Counties of England, Washington and Mexico, with very large portions. North Atlantic and North Pacific Oceans are within the southern line of simple contact.

II. Moon. *A Partial Eclipse on 20th March.*

Enters Penumbra,	9h. 25m. 31s. A. M.
Enters Umbra,	10h. 34m. 28s. A. M.
Central Eclipse,	0h. 4m. 58s. P. M.
Emerges from Umbra,	1h. 45m. 28s. P. M.
Emerges from Penumbra,	2h. 54m. 22s. P. R.

Invisible, as the Moon is beneath the horizon.

III. SUN. *A Total Eclipse on 8th September.* Commences generally 3h. 12m. 52s. P. M. in 17d. 55m. E. long., 16d. 16m. S. lat. Central Eclipse commences generally 3h. 32m. 16s. P. M., 15d. 51m. E. long., 11d. 0m. S. lat. Central phase at noon 4h. 55m. 40s. P. M., 14d. 39m. W. long., 5d. 46m. S. lat. Central phase ends generally 5h. 23m. 22s. P. M., 7d. 38m. W. long., 7d. 13m. S. lat. Ends generally 6h. 43m. 40s. P. M. in 8d. 13m. W. long., 5d. 28m. S. lat.

The only part of England where the total phase can be viewed is New Zealand, soon after sunrise. In the Provinces of Queensland, New South Wales, Victoria and Tasmania, the Phenomena will be nearly over at sunrise. It is, of course, invisible in this part of the Empire.

IV. Moon. *A Partial Eclipse on 24th September.*

Enters Penumbra,	0h. 37m. 52s. A. M.
Enters Umbra,	1h. 50m. 46s. A. M.
Central Eclipse,	3h. 24m. 48s. A. M.
Emerges from Umbra,	4h. 57m. 52s. A. M.
Emerges from Penumbra,	6h. 10m. 16s. A. M.

Magnitude of the eclipse, if we assume Moon's diameter as 1, is 0.784.

The first entrance into the umbra takes place at 37d. from the northernmost point of the Moon's limb towards the east. The last at 73d. towards the west; in each case for *direct* image.

As the Moon sets at St. John at the emergence from the Penumbra, the Phenomena will scarcely be visible *here*.

The Seasons of 1885.—Mean Time at Saint John.

Winter Solstice, Sun enters ♒, Winter begins 1884, December 21, 6h. morn.
Vernal Equinox, Sun enters ♈, Spring begins 1885, March 20th, 6h. morn.
Summer Solstice, Sun enters ♋, Summer begins 1885, June 21st, 6h. morn.
Autumnal Equinox, Sun enters ♏, Autumn begins 1885, Sept. 23, 5h. even'g.
Winter Solstice, Sun enters ♑, Winter begins 1885, Dec. 21st, 11h. morning.

Chronology.

Dominical Letter,.....	D	Year of the World, Byzant,	5583-5584
Epact,.....	14	Year of Olympiads,.....	3661
Golden Number,.....	5	Year of Rome (Varro),.....	2688
Solar Cycle,.....	18	Year of Creation, Usher,.....	5899
Roman Indiction,.....	13	Year of Creation, Hales,.....	5796
Julian Period,.....	6598	Year of the World, Alexandria,.....	7387
Era of Nabonassar,.....	262	Year of the World, Antioch,.....	7377
Era of the Seleucides,.....	2196-2197	Cæsarian Year of Antioch,.....	1933
Era of Diocletian,.....	1600-1601	Year of Tyre,.....	2010-2011
Era of Spain (of the Cæsars),.....	1923	Year of Actium,.....	1915
Era of Persia (Yezdigird III.),.....	1255	Year of Armenia,.....	1333-1374
Era of Mohammed,.....	1332-1333	Year of Troy (destroyed),.....	3069-3070
Era of Abraham,.....	3909		
Year of the World, Hebrew			
	5645-5646		