

### FLAMES WILL SHOOT FROM THE SUN

Eclipse Will Be the Heaven's Most Wonderful Spectacle.—Program Is Announced.—Moon Will Start Across Face of Sun at 8 A. M.

Long's Corners, to date famous largely as a honking place for motorists, five miles south of Hamilton on the Wentworth highway finds itself suddenly prominent on the maps of celestial spheres as the result of the impending capers of the moon on January 24. Experts of astronomy, astrophysics, sky-reading and star-gazing will make that hamlet their mecca for the purpose of observing the moon's eclipse of the sun that morning.

Long's Corners was selected by the Canadian scientists for their important work on the eclipse, because that point is about the center of the valley of the shadow of darkness to be created by the eclipse in Canada early on the morning of January 24. The shadow path cut varies from 100 to 167 miles in width and cuts a swath in the daylight from the Lake of the Woods, across portions of Minnesota, Wisconsin, Michigan, Ontario, New York and Connecticut, darkening considerable portions of the Great Lakes on the way. After leaving Connecticut (the city of New York is on the edge of the path) the eclipse sweeps across the Atlantic goes north of the British Isles, and at sunset says au revoir to the earth between the Orkney and Shetland Islands.

#### Magnificent Effects

Assuming that the sun and moon and other whirling orbits do their daily dozen according to schedule—and if they don't, we had better watch out—there will be some thrills and startling effects for the scientists with all their paraphernalia, as well as ordinary folks with their smoked glasses or fogged films, to witness on the morning of January 24. That is, providing that they are in the shadow path and also providing that clouds are not. We are promised the "most magnificent spectacle the heavens have to offer." The moon, it seems, will obliterate the sun and the narrow strip of the earth affected will be for one minute or more in total darkness. Flames millions of miles in length, say the scientists, will be seen shooting from the sun, behind the blackness of the solid ball of rock and sand composing the moon. Presumably this flame broadcasting is all in the usual day's work for the sun, but the obstructive tactics of the moon on this particular day will enable ordinary mortals to view these fire-dancing effects.

On the edges of the shadow path, there will not be a total eclipse, but some parts of the sun will be obscured, and some of the effects clearly discernible under good conditions. In Canada a line drawn from Goderich on Lake Huron to Niagara Falls will be the centre of the shadow path, and the eclipse will pass over this part of Ontario at the rate of 4,200 miles an hour, doing the trip from Goderich to Niagara Falls in one minute and 56 seconds. Partial eclipse will be in progress in this territory, however, for more than two hours.

Prof. C. A. Chant of Toronto University has prepared the following table and program of the event, which will apply generally speaking, to most points on the "path of totality."

#### Program of Spectacle

7.59 a. m.—The moon will start to pass across the face of the sun. To the onlooker it will appear as though some huge mouth had started nibbling at the solar orb, leaving a crescent-shaped hole as it eats its way toward the centre.

8.57 a. m.—The sky is still clear, but there are ominous signs of what appears to be an approaching storm. All that remains of the sun is a crescent so thin that one might be excused for thinking a puff of wind would blow it away. Daylight begins to fall. And then come the famous "shadow bands." Queer banded shadows move over the side of buildings.

9.06 a. m.—Now is the time to watch for the shadow. Far out to the west, the horizon disappears, to be replaced by a line between twilight and daylight, rushing toward you at the terrific speed of 4,200 miles an hour. The sun seems to break up into a series of bright beads—Baily's beads—as they are called, after the astronomer who first observed them.

9.07 a. m.—All else forgotten in the appearance of the eclipsed sun itself, now completely covered by the moon. For the next minute and 42 seconds, you will be able to examine the famed corona at comparative leisure, the moon is encircled by a strange, pearly halo, the streamers of which sometimes shoot out from the circumference for a distance of several diameters. Sometimes the spectacle is made still more weird by blood-red prominences just visible at the edge of the moon.

9.08 a. m.—A crescent-shaped streak of sun will appear on the opposite side of the moon to that from which it disappeared. The total eclipse is over not to return to Ontario again until A. D. 2144.

9.08½ a. m.—Second phase of partial eclipse sets in.

10.22 a. m.—Second phase of partial eclipse ends.

#### Past and Future Eclipses

Prof. Chant has looked into the records and finds that the last previous occasion when the moon made such a blockade of the sun's performance in this part of the world was on June 16, 1806, when there was a total eclipse visible in Fort Frontenac (now Kingston, Ont.), Ogdensburg, N. Y., and Salem, Mass. There will be another eclipse on August

31, 1932, which will favor the eastern end of Labrador, Anticosti Island and possibly parts of Newfoundland. Ontario will never see the like again, however, till the year 2144, when, on October 26, at 12.34 p. m., to be exact—an eclipse similar to that of January 24 will sweep over the Niagara Peninsula to astonish our great-great-grandchildren of the stenth generation.

### WATCH FOR THE SHADOW BANDS

If the solar eclipse of next Saturday finds you within its path of totality, which will cut across the United States from Minnesota to Long Island and if—the biggest part of all—the skies are clear on that occasion, do not fail to keep a lookout for the curious phenomenon of the "shadow bands." These bands are seen for a few seconds only, or at most for a minute or so, just before the beginning and just after the end of the total phase. They consist of dark and light pulsations gliding with a wavy motion over the landscape, much as the ripples of light and shade glide across moving water. As they are best seen on a white or light colored surface and as the coming eclipse occurs at a season when the ground is likely to be covered with snow along much of its path, we may expect that, if the weather is favorable, they will be widely observed.

The scientific observation of these bands requires certain preparations, which, however, the amateur can easily make. Fasten a white sheet down smoothly over a level patch of ground, with the edges exactly north-south and east-west to aid you in determining the direction in which the bands move. They travel at right angles to their length, and generally in somewhat different directions before and after totality. Some observers have seen two sets of bands moving in different ways at the same time. Both the width of the bands and their rate of motion are likely to vary. Measure them by means of a board painted in foot-lengths alternately white and black, to which you must lay on the cloth in the direction in which the bands are running.

Shadow bands are the result of the same cause that makes the fixed stars seem to twinkle. The beams that come from a source of light are bent successively in various directions in passing through the waves that are nearly always present in the atmosphere, especially near the ground. That gives the light a flickering appearance if the source is a point, as in the case of a star, or a slender band, as in the case of the nearly eclipsed sun. When the whole sun is visible, light coming from different parts of its broad disk combines to produce a uniform illumination, in spite of the bending of the individual rays, and hence the flicker does not appear. Shadow bands can, however, sometimes be observed when the sun is not eclipsed—at sunrise or sunset, for example, when only a small part of the sun is visible above a sharply defined horizon. You can also see them quite conspicuously on a surface illuminated at night by a powerful and distant searchlight.

#### ECLIPSES SINCE 2136 B. C. AND QUAIN RECORDS THEREOF

Oct. 22, 2136 B. C.—Hsi and Ho, official astronomers to the Emperor of China, put to death for failing to observe customary rites during partial eclipse.

June 30, 1070 B. C.—Total eclipse recorded at Babylon.

June 14, 763 B. C.—Total eclipse recorded at Nineveh.

May 28, 585 B. C.—Total eclipse took place during battle between Lydians and Medes, so frightening the contestants so that they called a truce, and finally made peace. This eclipse is said to have been predicted by Thales of Miletus, at that time one of the seven wise men of Greece.

June 21, 400 B. C.—Eclipse of Etna. Totality occurred immediately after sunset at Rome.

Aug. 14, 310 B. C.—Agathocles, Tyrant of Syracuse, observed total eclipse while on voyage from Syracuse to Carthage.

Aug. 30, A. D. 1030—King Olaf of Norway killed during battle of Stiklestad when his soldiers were frightened by the red light in the corona of the eclipsed sun. As a result of this battle, the Danes established a brief rule over Norway.

May 30, 1612—Total eclipse seen through a "tube" or telescope for the first time.

July 8, 1842—Scientists began physical research on the sun by observing total eclipse visible in Europe.

July 28, 1851—First photographs taken of a total eclipse. Daguerreotypes were made of an eclipse visible in Scandinavia and Russia.

Aug. 18, 1868—Total eclipse visible in India. For the first time, the red prominences were examined through the spectroscope and shown to be composed of incandescent hydrogen, calcium and another gas, until then unknown. This gas, now known as helium, was discovered on the earth about 27 years later, and is now used in airships.

Aug. 7, 1869—Observation of an eclipse visible in the United States revealed the presence in the corona of an unknown substance called coronium. This substance has never been found on earth.

May 29, 1919—Photographs taken during total eclipse by two British expeditions showed bending of light rays from stars, thus verifying the theory of Einstein that light is affected by the sun's gravitational field.

#### Where He Shone

Boss (engaging boy)—"Is there anything you can do better than one else?"

Boy—"Yes, sir; read my own writing."—Good Hardware.

### SUN TO APPEAR AS BLACK DISC

Phenomena of Coming Eclipse Are Outlined.—To Begin at 9.06 a. m.—Countrywide Will Be Plunged into Brief Darkness.

From the golden bar of heaven, even as from your own doorstep, the grandest and most fascinating view of earth comes during a total eclipse of the sun.

Imagine yourself at the celestial parapet, gazing down through swirling star dust at the sphere of our familiar world, spotted by the shadow of the moon.

No shiftings of night and day, storm and smile, war and industry, can dress earth in the vast, weird, varied fantasy crayoned by an eclipse. From your viewpoint in the sky, eclipses can be seen at least twice every year, and some years, five times. But in any one terrestrial locality, the grand spectacle is visible on an average of but once in 350 years, the sight of seven lifetimes.

#### Meets Sunrise

It is the morning of January 24, 1925. The eclipse meets the sunrise about 120 miles northwest of Duluth, Minn. You see it as a round spot of blackness about 100 miles in diameter, moving at the terrific speed of a moonbeam. The shadow sweeps the length of the Great Lakes in an hour, shrouds mighty Niagara in insignificance, blots light from Toronto, New York, New Haven and the homes of 10,000,000 people, shadows the Atlantic steamship lanes and is at length overtaken by night's darkness in the waters of the North of Scotland.

Dwellers in the path of this black circle each may see the moon's disc gradually veil the sun, the deepening "shadow bands," mysterious fore-runners of the dark. Then comes the sudden overwhelming of light and the eerie blues-blackness of total eclipse, the marvelous scarlet flames of the sun's "corona" ring- ing the edge of the moon, the passage of the brief night-in-day and the relief of returning life.

#### Darkness Fades

From the edges of the round, black shadow on the earth extends in lessening density the darkness of partial eclipse. The thick shade near the edge of totality fades into complete daylight at its farthest imaginable edges in Greenland and south to the Amazon.

Lean out from heaven's pinnacle now and see at close range how eclipses. An uncanny chill pervades the atmosphere. Dew falls. Sensitive flowers fold their petals, and the thrush pipes his evening before noon. Bewildered hens and roosters take to their roosts, and owls open their eyes in the forests. Men's faces take on a livid, unearthly hue. Countrymen cease plowing and until the end of their lives tell with awe of a certain "Black Saturday" or "Murk Monday."

Pious Hindus destroy all food in their homes as having been made unclean. The Chinese beat drums and discharge firecrackers to rescue the sun from the devouring dragon. Savages grovel and bewail the loss of their god and their life's source. They blow trumpets and shout prayers. Some bury torches to save the vital spark, and others fire arrows skyward to drive off the sun's attacker.

#### Beheaded

Behold the Mongol Emperor Chung K'ang beheading his court astronomers, Ho and Hsi. They were charged with getting drunk and failing to predict the eclipse of October 22, 2136 B. C. Consequently proper precautions could not be taken nor ceremonial rites performed. Chaldean wise men make records

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on tablets of the "saros," or 18-year cycle, in which eclipses repeat themselves—knowledge which science 3,000 years later can only confirm. The early Romans see them in divine portents and punish for blasphemy anyone who says they are of natural causation. Hebrew prophets give them as signs to their people, saying, "I will make the sun to go down at noon, and I will darken the earth in the clear day."

The Greek astronomer, Thales of Miletus, predicts an eclipse for the year 585 B. C. It occurs while the Medes and Lydians are in battle, and Herodotus writes that "when they saw day turned into night, they ceased from fighting and both sides were desirous of peace."

Behold man ever bowing to this grandeur. He connects it with legends, earthquakes, persecutions. He sees significance in its appearance when Romulus is dying, when the invading army of Xerxes approaches the Hellespont, when Caesar crosses the Rubicon. The brilliant Pericles calms the fears of his navy and pushes on to fight the enemies of Athens in spite of an eclipse.

#### Helium Gas

Now, with Galileo's telescope, man continues his studies. In 1851 he was taking photographs of eclipses. In the sun's corona he discovered helium and later used it on earth to lift airships. The French Astronomer, Janssen, during the siege of Paris in 1870, goes up in a balloon during an eclipse, seizing the double chance of escape and to study the corona above the clouds.

### HOSPITAL PATIENTS RETURNED TO HOMES

Messrs. A. H. Burnet and D. Smith Discharged From Local Hospital Last Week.

Mr. David Smith, who has been confined in the Durham Hospital since the middle of November following an accident at the foot of Durham hill when he ran into the C.P.R. night train with his Ford sedan and suffered a broken leg, returned to his home last week. While not altogether recovered, he is able to put some weight on his foot and will soon be walking around again.

Mr. A. H. Burnet, another patient who has been in the hospital for the past three weeks with an attack of pneumonia, was also discharged and is convalescing at the home of his son, Mr. William Burnet. For a time, Mr. Burnet's case was considered serious as he is considerably over 80 years of age. He has, however, almost fully recovered and will soon be around again.

The condition of Mr. William Grant, who had his leg broken two months ago when run into by a car, is also satisfactory, and it is expected that from now on his recovery will be steady. He will likely be confined to the hospital for some time yet, however, as his leg was badly fractured, and being a man nearing the three score and ten mark, his progress will naturally not be rapid. His condition is entirely satisfactory.

In Proton Township the By-Law to abolish statute labor was defeated by a vote of 340 to 250.

**ROWE'S Bakery & Provision Store**  
Flour  
The Finest Manitoba per bag \$5.00  
Pastry Flour 24 lb \$1.20  
Goods Delivered Anywhere in Town  
**E. A. Rowe**  
Baker & Confectioner

**FREE! FREE!! FREE!!!**  
We are giving Absolutely Free a Patched Quilt in Star Pattern to the customer making the largest purchase during January and February, 1925.  
Sale began Sat., Jan. 10 and ends Sat., Feb. 28  
Don't Miss This Opportunity  
**Campbell's Grocery and Restaurant**  
Phone 115 North of Post Office Durham  
The House of Fresh Groceries and Confectionery  
OUR STOCK IS ALWAYS FRESH

### DIED SUDDENLY WHILE VISITING ARTHUR FRIENDS

Former Priceville Lady Passed Away Suddenly From Acute Indigestion.

The death occurred in Arthur on Monday of this week of Mrs. Angus McLachlan of Markdale, who passed away suddenly from an attack of acute indigestion while on a visit with her friend, Mrs. (Dr.) McFarlane of that place. Mrs. McLachlan, a former resident of Priceville, was a daughter of Mr. Hugh McKinnon of the South Line, Glenelg. She was 34 years of age.

The deceased, whose maiden name was Julia McKinnon, was married in September, 1919, to her now sorrowing husband, who, with a young daughter, Marie, four years old, survive. During the past year, Mr. and Mrs. McLachlan have been residents of Markdale where he was in the employ of F. I. Hill and Company in their elevator at that place, and was himself somewhat seriously injured last summer.

Mrs. McLachlan, besides her husband and daughter, leaves to mourn her father, Mr. Hugh McKinnon, near Priceville; Mrs. J. Jones, Saskatchewan; Donald and Archie in the West; Malcolm in Regina, Sask.; and Charles and Lachlan at home. A sister, Mrs. John Scott of Drumore died some years ago.

The funeral was held yesterday, a short service being conducted at the house at 1 o'clock by Rev. Mr. Sutherland of Priceville when the remains were taken to the Presbyterian Church the service there being conducted by the deceased's pastor, Rev. Dr. Gray of Markdale. Interment was made in McNeil's cemetery, Priceville.

Many beautiful floral tributes deposited on the casket by mourning friends showed the high esteem in which Mrs. McLachlan was held.

Among those present at the funeral were, Mrs. (Dr.) McFarlane and her sister, Mrs. Nellie of Arthur who came to Priceville with the body and stayed over for the funeral.

Mrs. McLachlan is a cousin of the Weir family here, and of Mrs. J. M. Burgess, the latter being in attendance at the funeral yesterday. Mr. McLachlan, who for a time was employed with the Durham Stone and Sand Company here, is a brother of Mrs. John Beaton of the Fourth Concession, Glenelg.

### PALMERSTON TEAM INSTALLED I.O.O.F. OFFICERS

Local Odd Fellows Visited by D.D. G.M. Fair and Installing Team Monday Evening.

On Monday evening last, the installation of officers in Grey Lodge No. 169, I.O.O.F., took place when the following officers were installed: J. P. G. R. Whitmore; N. G. Rev. W. H. Smith; V. G. W. J. Firth; R. S. B. Stonehouse; F. S. A. C. King; Treas., P. Ramage; Warden, Thomas Whitmore; Conductor, A. Bell; Chaplain, C. Lauder; R. S. S. D. Ewen; L. S. S. J. Ritchie; R. S. N. G., Thomas Henderson; L. S. N. G., W. J. McGirr; R. S. V. G., G. Ritchie; L. S. V. G., D. Nichol; L. G. Reany Snell; O. G., T. V. Bell.

The installation ceremony was conducted by D. D. G. M. Perry Fair and installing team of Palmerston, and following the installation, the members partook of an oyster supper and other enjoyments.

### INDEPENDENT FORESTERS HELD SOCIAL EVENING

Installation of Officers Followed by Games and Luncheon.

At the regular meeting of the I.O.F. last Thursday evening, two new members were initiated into the mysteries of the order, after which the following officers were installed: C. R. W. J. Hewitt; Court Deputy, W. H. Moffet; Physician, Dr. J. L. Smith; P. C. R. J. McQueen; V. C. R., D. McKechnie; R. S., J. Morrison; F. S. and Treasurer, T. Allan; Orator, J. S. McIlraith; S. W., J. McDonald; J. W., J. M. Smith; S. B., G. N. Hay; J. B., J. W. McKechnie.

The installation was in charge of D. D. H. C. R. J. Morrison assisted by Marshal J. S. McIlraith. The remainder of the evening was spent in games and other amusements in which the members and their wives took part. A luncheon at near the midnight hour brought a pleasant evening to a close.

### JACK CANUCK QUITS

According to information received at this office, "Jack Canuck," Toronto's notorious, scandal-mongering paper kicked the bucket and passed out to the happy hunting ground. So far, we have heard no regrets, though, perhaps there are some of the population with a hankering for news of the limburger cheese variety who will miss their usual weekly helping of sewer suds and vituperation.

Jack Canuck's editor was recently given a six months' jail sentence for contempt of court, and the paper fined \$1,000. The latest report is that the office is dismantled and publication will cease. The journal will not be missed locally, as very few, if any, copies of it were read here.

Animals are sacrificed to an idol called "Nicholas on the Wheels," by a religious sect recently discovered in Russia.

### BORN

Atkinson.—In Durham, January 16, to Mr. and Mrs. W. J. Atkinson, a daughter.

Mighton.—In Bentinck, January 16, to Mr. and Mrs. Robert Mighton, a son.

Turnbull.—In Durham on January 20 to Mr. and Mrs. Walter Turnbull, a daughter.

### CLASSIFIED ADS. (Too Late for Classification.)

BUY FLOUR NOW FIVE ROSSES FLOUR GOING UP IN PRICE. Buy now.—Beggs' Store Durham.

**Schutz's Pump & Tile Co.**  
TILE ALWAYS ON HAND Sizes 6, 8, 10, 12, 15, 16, 18, 24 in.  
CEMENT BRICK FOR SALE  
Agents for Renfrew Cream Separators PUMPS & PUMP REPAIRING Promptly Attended to and all work Guaranteed.  
OPPOSITE HIGH SCHOOL

INTERFIELD—BONNET—BROWN  
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