

'Sota to Nort' O' Scotland 1925 Total Solar Eclipse

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In 1991, my wife Pam and I were planning our first trip to view a total solar eclipse. When I mentioned it to my mother—Marie Bertha Emily (Westfahl) Schaar—she said: "That's when it gets dark during the day?"

Yes, I said, and to my surprise, she replied, "I saw one." It occurred, she recalled, when she was living on her parents' farm outside of Tigerton, Wisconsin, a village about 65 miles northwest of Green Bay.

Mum, as we called her, was born in 1906 and attended school through the eighth grade. Everyone in her family spoke German as a first language; classroom instruction was in German, too. English was her second language.

Before and after school, she worked on the farm and enjoyed riding horses and attending barn dances.

I purchased Bryan Brewer's book *Eclipse* in preparation for traveling to Hawaii's Big Island and looked at the chart, "Total Solar Eclipse Paths Across North America 1900—1991"¹ and sure enough, in 1925 when my mother was 18, one appeared to have gone right over Northern Wisconsin and Michigan's Upper Peninsula. She didn't remember much about it other than it got dark during the day.

Total Solar Eclipse of 1925 Jan 24



Overview Map

This map sourced from [NASA Goddard Space flight Center: GSFC Eclipse Web Site](https://www.nasa.gov/content/goddard/goddard_eclipse_web_site/)² shows the visibility of the total solar eclipse. It also shows the broader area in which a partial eclipse was seen. (Click on it for the full-sized version.)

From: https://moonblink.info/Eclipse/eclipse/1925_01_24

¹ Brewer, *Bryan Eclipse Second Edition* 1991 Earth View Inc. page 71.

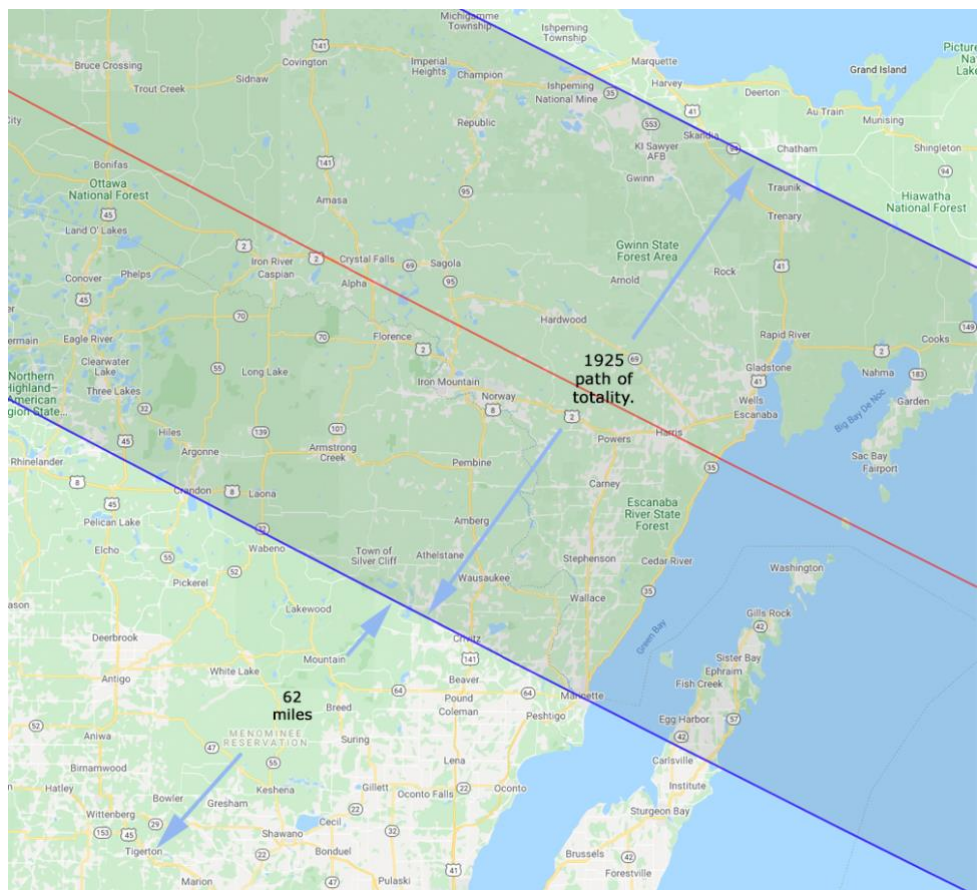
In the pre-Web era of the early 90s, research was difficult so I didn't look into the eclipse she remembered. Wish I had because Mum died in May 1995. By then I'd seen a second total on Bolivia's Altiplano outside the city of Potosi.

Years and years went by and Pam and I saw two more together, Turkey in 1999 and Wyoming in 2017.

Now we're planning for the 2024 total that will sweep southwest to northeast across the middle United States. My mother's eclipse experience from 1925 came to mind, and I decided to look into it.

Soon I found an exacting graphic showing the Moon's shadow touched down in the wilds of Northern Minnesota and ranged east in an arc across Upper and Lower Michigan, Lower Ontario, New York, including New York City, then over the Atlantic where it ultimately ended in the ocean north of the United Kingdom.

Her location on the farm was about 62² straight-line miles south of the shadow band so it wasn't a total where she stood that January 24, a Saturday. But she was close enough to experience what I estimate to be 95% coverage of the Sun—see attached graphic.



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² <https://www.gps-coordinates.net/distance>

³ <http://www.eclipsewise.com/solar/SEgmapx/1901-2000/SE1925Jan24Tgmapx.html#map>

The large partiality coupled with overcast skies probably produced totality-like darkness.

Unusual enough for her to remember it 66 years later.

To the north Ironwood and Iron Mountain, Michigan, were within the shadow band but also shrouded in clouds.

The *Ironwood Daily Globe* reported: "At 7:57 a.m. the sky had darkened perceptibly and [at] 8:01 the total eclipse had set in, lasting until 8:02 1-2 [not sure what 1-2 means—possibly one-half minute], according to the official time taken with a chronometer by the astronomers of Minnesota university. They estimated that the darkness lasted 100 seconds, for the sky became light quickly and once more daylight had set in. During the period of the darkness, the effect was much like that of a moonlight night with the moon hidden from view...Ironwood was practically in the center of the path of the total eclipse..."⁴ The totality shadow was about 90 miles wide and grew as it ranged east.

About 125 miles southeast of Ironwood, Iron Mountain fared no better: "Attempts at observation of the solar eclipse at 8:03 a.m. central time, when the eclipse was total, was a failure at this point because of clouds. Professor O.J. Lee, of Yerkes Observatory, announced as totality vanished that from the standpoint of observation, the failure was complete."⁵

Green Bay, about 72 miles⁶ south of the shadow band, was cloudy, too, as reported by the *Green Bay Press Gazette*: "...residents may have had a bitter disappointment Saturday morning when the much heralded eclipse of the Sun was obscured by clouds and thousands of watchers saw nothing but a deepening twilight spread over the city."⁷

Though Chicago was 200 miles⁸ south of the path of totality, citizens there expected a large partiality, but their viewing was blocked by clouds. An excellent description of the experience appeared in the January 25, 1925 *Wisconsin State Journal*: "To millions of persons in the northwest shadow band of the eclipse, it was like sitting in a theater with the show going on behind the curtain."⁹

Pam and I know the feeling. The Big Island eclipse we attended produced a totality of more than six minutes,¹⁰ but we only saw about 45 seconds due to

⁴ *Ironwood Daily Globe* January 24, 1925 page 1.

⁵ Ibid page 7.

⁶ <https://www.gps-coordinates.net/distance>

⁷ *Green Bay Press Gazette* January 26, 2021 Page 3

⁸ <https://www.gps-coordinates.net/distance>

⁹ *Wisconsin State Journal* January 25, 1925, page 28.

¹⁰ https://en.wikipedia.org/wiki/Solar_eclipse_of_July_11,_1991

clouds.¹¹ With totality blocked minutes rush by like seconds...

The 1925 Windy City report relates not quite all was lost: "Only in two or three spots did the thick, low-hanging clouds part for momentary glimpses of the shimmering glory of the horizon."¹²

It also summarizes how big an event it was for the city: "Scientists who had made elaborate plans and expensive preparations to observe the eclipse shared in the disappointment of the millions who jammed rooftops, the lake shore, the hills, and the open country from early dawn to long after the hours of obscuration."¹³

Approximately 453 miles to the east, Buffalo was in the center of the shadow path and under equally dense clouds as reported in the *Buffalo Evening Times*: "A half million Buffalo people this morning lifted their eyes skyward to see the Sun pass behind the moon but clouds rose up shortly before 9 o'clock and the show of a century ran and was over and the play was to an empty house."¹⁴



Two paragraphs later: "The only eclipse phenomena to exhibit itself in Buffalo was the dark pall which fell over the city at 9:07 o'clock. This marked complete totality or the complete covering of the Sun by the Moon."¹⁵

¹¹ <https://tswrites.com/The.Eclipse.Chasers.pdf>

¹² Ibid.

¹³ Ibid.

¹⁴ *Buffalo Evening Times* January 24, 1925 page 1.

¹⁵ Ibid

Just 160 miles to the southeast along the shadow line, a newspaper reported observers in Binghamton, New York, viewed the entire eclipse under clear skies:¹⁶

"With the Moon as a foil, Sol played hide-and-seeK with the Earth on schedule this morning in total eclipse, painting pictures ineffably and weirdly beautiful, while stars worked overtime, astronomers and scientists gambled feverishly with fate and the mysteries of creation and an estimated 25,000,000 mortals, shrouded in the apex of the shadow cone of the Moon, watched awestruck and thoughtful, enraptured and speechless or just curious, according to their temperaments."¹⁷

The story continues: "Featuring the astral exhibit was the reappearance of the Sun seconds after the end of the period of totality when, like the star which lighted the heavens over Bethlehem to guide the Three Wise Men, a corner of the Sun suddenly emblazoned the heavens in a spectacle seemingly supernatural."¹⁸ [Probably unintended but "supernatural" might be interpreted as questioning Jesus' birth story.]

Though not mentioned, the "corner of the Sun" described likely was the stunning "diamond ring" phenomenon that appears just before and after totality.

One story out of Binghamton was titled, "Eclipse Causes Incipient Blaze In Shoe Shop."¹⁹ Subheads were, "Fireman Called Out by Fire in Washington Street Building, No Damage Results," and "Flames Breaking Out in Dump on Front Street Are Soon Checked."²⁰

How was the eclipse involved? Paragraph two explains: "The fire was in the shoe shop...Someone using newspapers to smoke glass with which to observe the eclipse had thrown the smoldering papers in a box of rubbish in the rear of the shop and while everyone in the vicinity was observing the eclipse the fire gained headway."²¹

It appears "smoked glass" at the time was considered a safe way to view solar eclipses given how often I've seen it mentioned in 1925 newspaper stories.

Another report had President Coolidge observing the partial "on the lawn of the White House, looking through a blackened window pane which he carried."²²

¹⁶ Binghamton Press And Leader January 24, 1925 Second Edition page 1.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ *Binghamton Press And Leader* January 24, 1925 Second Edition page 1.

²⁰ Ibid.

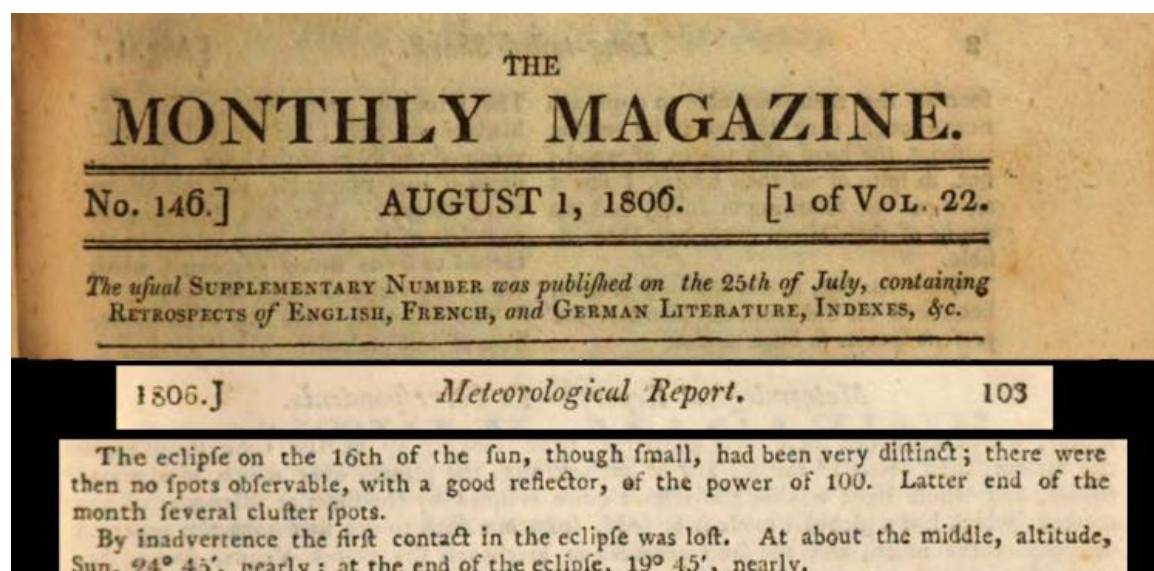
²¹ Ibid.

²² *Ironwood Daily Globe* January 25, 1925 page 1.

Now it's known to be among unsafe methods as summarized by earthsky.org: "Do not use sunglasses, polaroid filters, smoked glass, exposed color film, X-ray film, or photographic neutral density filters."²³

The City Edition of the *Binghamton Press And Leader*, evidently a separate paper which I'm guessing was designed to have a distribution wide enough to encompass metropolitan New York carried the headline: "Eclipse of Sun, Wonder Spectacle, Realizes Dreams of Astronomers."²⁴ After three subheads the story began: "Dreams of astronomers of seeing a total eclipse of the Sun under ideal conditions were realized today in New York and New England....Especially in New York City witnessing its first eclipse in 119 years was the spectacle magnificent."²⁵

The earlier visible-from-New-York eclipse occurred on June 16, 1806, in the late morning and early afternoon; maximum coverage was at 12:24 p.m. It was a long one with totality lasting 4' 55".²⁶



The above uses the obsolete "f" to represent small "s."

Notably, José Joaquín de Ferrer (1763—1818), a Spanish astronomer who observed the 1806 eclipse from Kinderhook, New York, was the first to apply the word "corona" to the bright, striated haze surrounding the black hole the Moon produces when it moves directly over the Sun.²⁷

The word corona according to etymonline.com derives from the "...Latin corona 'a crown, a garland,' in ancient Rome especially 'a crown or garland bestowed for distinguished military service...'"²⁸

²³ <https://earthsky.org/astronomy-essentials/how-to-watch-a-solar-eclipse-safely>

²⁴ *Binghamton Press And Leader* January 24, 1925 City Edition page 1.

²⁵ *Ibid* page 1.

²⁶ https://moonblink.info/Eclipse/eclipse/1806_06_16

²⁷ https://en.wikipedia.org/wiki/Jos%C3%A9_Joaqu%C3%ADn_de_Ferrer

²⁸ <https://www.etymonline.com/search?q=corona>

Wikipedia relates the 1806 event, "...has been called Tecumseh's Eclipse after the Shawnee chief."²⁹

Another source states: "Tecumseh and his brother Tenskwatawa, who had a reputation as a prophet, had told other [Native American] leaders 50 days before the event that they would receive a sign from the Great Spirit, in the form of a darkening of the Sun. Thousands gathered for the event near Greenville (now in Ohio), and the darkening happened just as Tecumseh and his brother had predicted, and helped to cement their leadership of the disunited tribes in his later wars against the United States forces, and as an ally of the British in the War of 1812."³⁰

Though his followers might have concluded he had unearthly forecasting powers, there was a far simpler explanation: "Tecumseh was known to travel widely and spent a lot of time with white settlers, and so he may have had access to a European almanac that may have included the prediction."³¹

During the 1925 eclipse, New Haven, Connecticut, home of Yale University, was near the center of the shadow path. Spectators there observed Jupiter, Mercury, and Venus in the darkened sky around the eclipsed Sun.³²

The shadow continued eastward out over the Atlantic at a reported speed of "4,200 miles an hour"³³ though that seems fast. Space.com estimated the 2017 American Eclipse traveled at about 2,500 miles per hour.³⁴

After crossing the Atlantic, the Moon's shadow darkened the sea north of England where totality ended at 3:46 p.m. local time. Newspaper summaries of the eclipse were more dramatic than I see these days.

This is from a United Press story in the *Wisconsin State Journal*: "Never before has the hum of life in a work-day world been so concertedly interrupted; never before have the eyes of so many human beings focused upon a spectacle, as when the obliterating, dull black disc of the Moon cut off the Sun's light from Earth for a few fleeting seconds."³⁵

The story goes on: "...between 9:02 and 9:16 a.m. darkness descended but a few hours after daylight, and inestimable number of persons witnessed the flashing, leaping circlet of the Sun's corona at the moment of totality."³⁶

I've had the great good fortune of seeing four total eclipses but don't recall the corona moving. It's diffuse and different in every appearance but appears static. It *is* moving and *quickly* but the sizes of the streamers are so large and distances involved so great, it's not possible to discern motion in the minutes that elapse.

²⁹ https://en.wikipedia.org/wiki/Solar_eclipse_of_June_16,_1806

³⁰ Ibid.

³¹ <https://www.livescience.com/59720-curious-stories-about-eclipses.html>

³² *Ironwood Daily Globe* January 25, 1925 page 1.

³³ *Binghamton Press And Leader* January 24, 1925 City Edition page 1.

³⁴ <https://www.space.com/36388-total-solar-eclipse-2017-duration.html>

³⁵ *Wisconsin State Journal* January 26, 1925 page 1.

³⁶ Ibid.

I posted the report on the Eclipse Watchers Facebook page, and group member Mark Egan suggested the following to explain what made the reporter *think* the corona was flashing and leaping:

"Two things come to mind: the corona does 'burst' out at the beginning of totality (it stays static after that, at least for the few minutes of totality) I wonder if, at this particular eclipse, there may have been some thin, fast moving low clouds that gave the illusion of the corona 'flashing.'"

Minimally the "burst" when the corona first appears around the Sun he mentions might seem like movement when it truly isn't.

It's very easy to be misled by phenomena and see things that aren't there. *Especially during a total eclipse of the Sun.* Today, we have countless videos of solar eclipses, but in 1925 film of the Sun during totality was rare.

Now, along with many others, I am eagerly awaiting the 2024 total. Wish my mother were here to view it, too. But she would be 117 years old having been born in September of 1906.

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