

The Impending Solar Eclipse

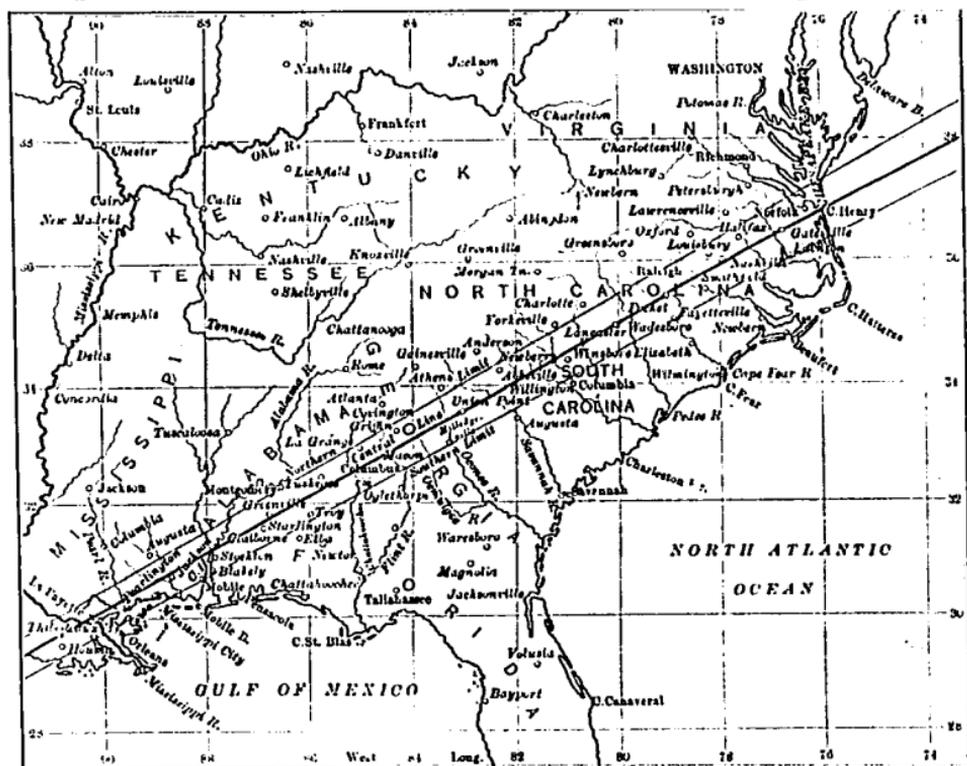
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IF flour be sprinkled over the top of a table, and a silver half dollar be moved through it, it will be discovered that it leaves a definite path of uniform width. The shadow of the moon as it falls upon the earth in the morning of Monday, May 28, will be more or less nearly the form of a circle; but as the shadow travels, it will describe a path of about fifty-five miles in width. The path begins at sunrise in the Pacific Ocean at a point somewhat to the west of Mexico; thence it passes across Mexico and a little point of Texas at the mouth of the Rio Grande River; crossing the Gulf of Mexico it re-enters the United States at New Orleans, and, passing in a north-easterly direction, crosses the States of Louisiana, Alabama, Georgia, South Carolina, North Carolina and Virginia, where, at Cape Henry, it passes out into the Atlantic; in the afternoon the path is being described across Portugal and

west a few miles, and at Montgomery to the east.

The eclipse occupies as a whole about two hours and a half. It begins at twenty minutes before six in Denver, at half past six at Des Moines, at 7 o'clock at Cincinnati, at 7:20 at Wheeling, at about 7:30 at Norfolk, and at about 8 at New York and Boston. Those within and those outside of the path of totality have certain enjoyments in common. The body of the moon will be seen alike by all, encroaching upon the face of the sun, and gradually converting it more and more to a graceful crescent. The observation should be made with smoked glass; one may smoke his own over any flame, and thus regulate its density, pains being taken to have the film of carbon evenly distributed. It is an error to depend upon stained glass which allows the sun's glare to reach the eyeball and possibly even to injure the organ. Those who use opera or field glasses or telescopes must see to it that their eyes are fully protected by the interposition of smoked glass or the use of a sunshade made to accompany such an instrument.

While thus watching the progress of the moon, it is interesting to watch the



THE PATH OF THE SOLAR ECLIPSE

By courtesy of "The Literary Digest."

Spain, the Mediterranean, Algiers and Egypt, and sunset sees it terminate at the Red Sea, with a length of about 7,000 miles.

Such is the path of totality, and within that path must one stand in order to witness the great phenomenon of a total eclipse of the sun. To have this privilege is worth going round the world, says Professor Samuel Pierpont Langley; but if one be one mile outside this path he has missed the marvellous spectacle. For, interesting as is a partial eclipse, and the present will be partial all over the country, it bears no comparison from either a scientific or a spectacular point of view, with a total eclipse. The very last of the sun's brilliant face must be shut off before the springing into view of the corona above, or the arrival of the awful shadow below. Hence one does well who comes within the limits of the path of totality, as at New Orleans, Raleigh, Tarboro, and Norfolk, while those stationing themselves at Mobile, Macon and Columbia, would better move to the

effect upon things terrestrial. Only those who are in or near the path of totality will discover that daylight sensibly fades. But the little round images of the sun which rest upon the ground under the thick foliage of trees will become an object of interest as they slowly turn to graceful crescents, then enlarge again to their usual form of discs. If one choose, he may darken a room where the sun's light falls, and, through a small opening, secure the image of the sun upon the wall of a screen, and there have an in-door representation of all that is passing in the heavens.

Within the path of totality, about ten minutes before the crucial moment arrives, it will be discovered that daylight is falling and that all nature is assuming a weird appearance. And now one might well wish that, equipped with two eyes, he could use them separately. For he ought to see the on-coming of the huge lunar shadow as it approaches with a speed of not less than 1,000 miles an hour, and he ought to see the sudden springing into view of the sun's corona. The former should, if possible, be seen from a great distance; a lofty eminence, commanding a view of twenty to thirty miles or more, would enable one to see the shadow far away, silently but majestically, as of a thing of unearthly power,

sweeping on and apparently annihilating all within its path. Daylight now goes out like the turning off of the electric lights of a great building. Night has returned. The shadow is passing, 55 miles of it, though it seems to be standing still. In a minute and a half, looking again to the southwest, one sees the daylight coming as the shadow did, all nature being swept back into life by a wonderful resurrection, and, turning quickly to the northeast, the massive shadow is seen scurrying off to the sea.

In the heavens a wonderful transformation has taken place. The sun's face is utterly obscured; and in its place hangs the great black bulk of the moon. But this is surrounded by that marvelous halo known as the sun's corona, its illuminated atmosphere, reaching millions of miles into space, and too widely diffused to be itself eclipsed; far down in this, comparatively close to the sun's body, yet reaching thousands of miles into space, may be seen great leaping geysers of red hydrogen flames. Men of science will make eager use of their ninety seconds to wrest from the sun the secrets of these phenomena. In an instant the sun's light breaks forth, and the corona disappears till the next eclipse, eighteen years hence.

One can hardly witness this wonderful spectacle without new and sublime views

of the Almighty who said: "My right hand hath spanned the heavens; when I call unto them, they stand up together." New York.