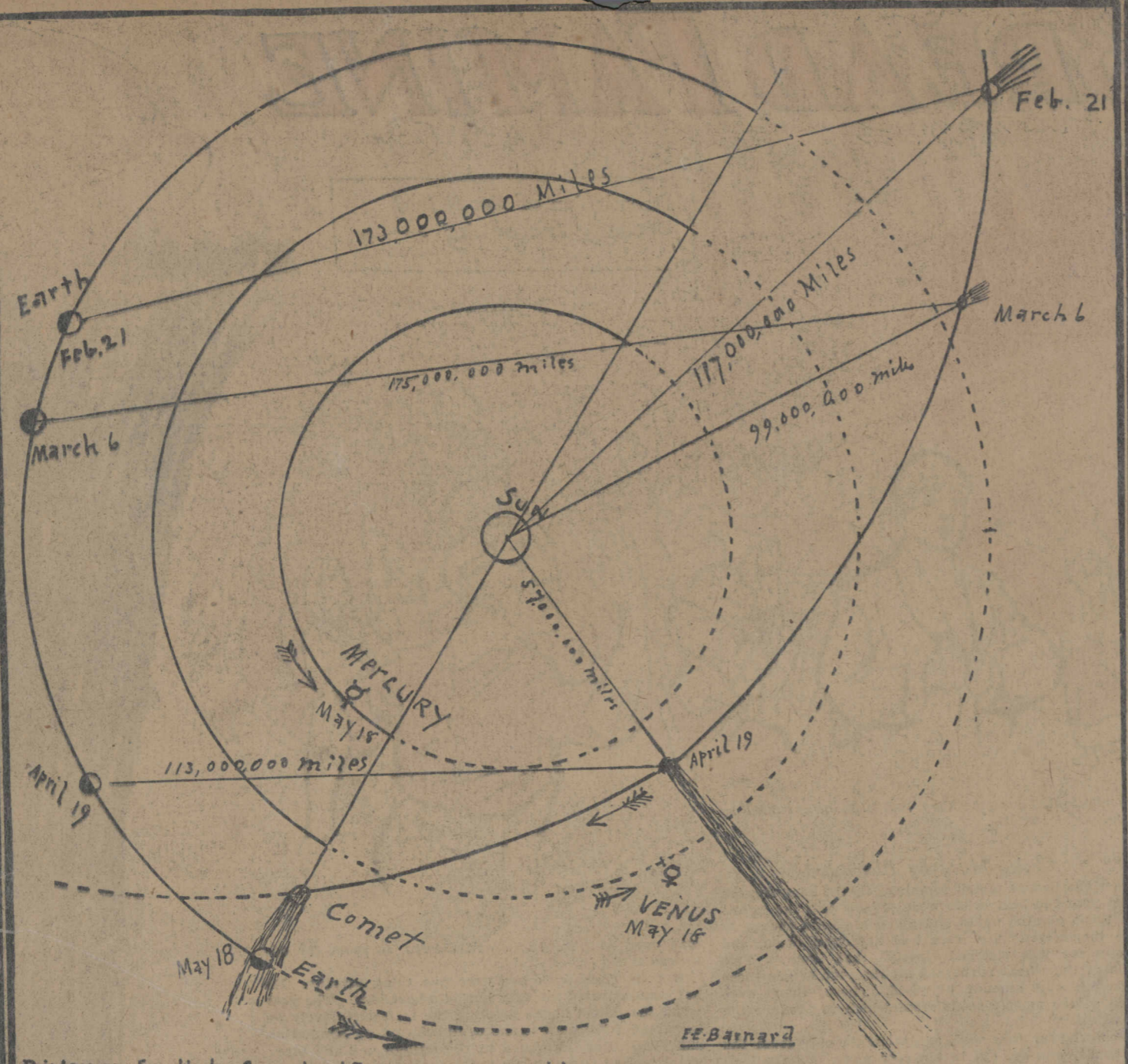
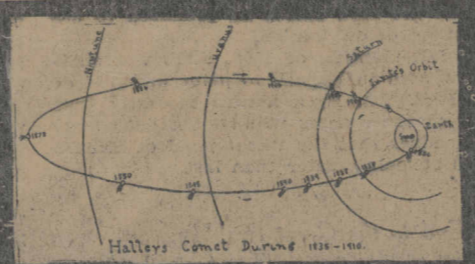


Prof. E. E. Barnard



Distance Earth to Comet 15,000,000 miles.
 Diagram Showing the Passage of the Earth thro' the Tail of Halley's Comet on May 18th 1910.

Yerkes Observatory Photograph of Halley's Comet Feb. 3, 1910.



Halley's Comet During 1835-1836

Relative Positions of Comet and Earth.

BY PROF. E. E. BARNARD, YERKES OBSERVATORY, WILLIAMS BAY, WIS.

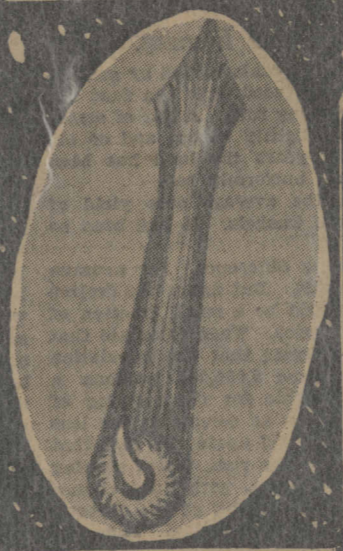
The diagram which I have made at the request of "The Sunday Tribune" shows four positions of Halley's comet and the earth. The first position, the one for Feb. 21, shows the positions and distances of the comet from the earth and from the sun. The comet is moving in a contrary direction to the earth, as indicated by the arrows.

On April 19 the comet is nearest the sun, and its tail will doubtless be longest. The positions of the earth and comet are shown for this date. The comet will then be visible in the morning sky south of the point of sunrise. It will rise at the beginning of dawn, and its tail ought to show fairly well, but the comet will be low, near the horizon, and will be visible but for a short time before sunrise.

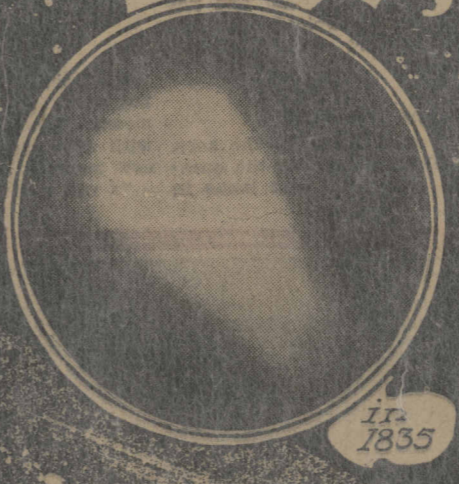
On May 18 it will pass directly between us and the sun, at about 8 p. m., but at that time the sun will be set and we shall not see it here in its transit across the sun's disk. This will be seen in the Hawaiian islands—Honolulu—in the Philippines, India, China, Japan, etc. At this time the comet will be directly between us and the sun and about fifteen million miles distant. If the tail is fifteen million miles long it will sweep over the earth. There is a strong probability that it will be at least that long. There is absolutely nothing to fear from this. Indeed, it is doubtful if we shall know, except by calculation, that we have been in the tail of the comet. Possibly, but it is by no means certain, we may have a meteor shower, such as was produced on Nov. 27, 1872, by the passage of the earth through the remnants of Bielo's comet. Possibly there will be some other phenomena of interest, but certainly there will be nothing to fear. Just what we shall see, if anything, will be better told on May 19.

I have shown in this diagram the positions of the planets Mercury and Venus on May 18, as well as those of the comet and the earth. From Mercury the earth will be seen shining like a star through the comet. From Venus the earth and the comet will be seen near together, with the earth in the tail of the comet. Any one looking at the diagram can see how this will be. By following the course of the comet on the diagram from Feb. 21, and remembering that its orbit tilts down and through the orbit of the earth, one can see the nature of the situation as it will be on May 18.

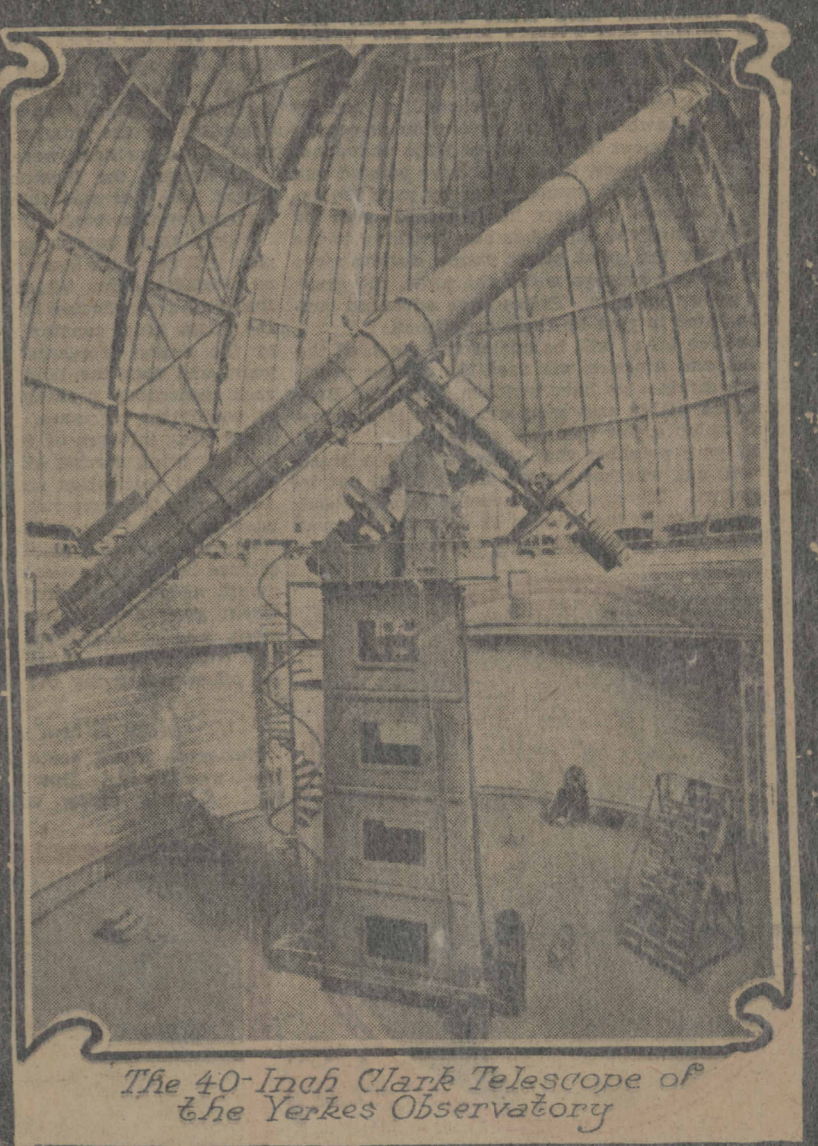
After the comet has passed between us and the sun on May 18 it will be visible in the evening sky, and we ought to have a good view of it after sunset.



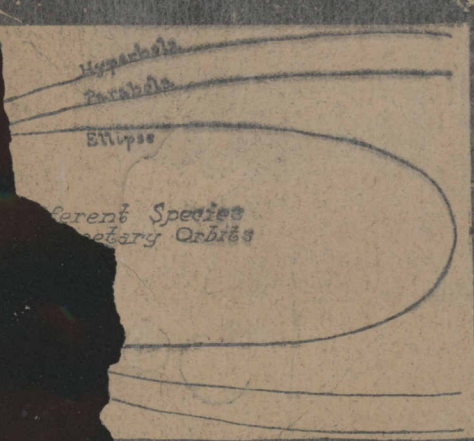
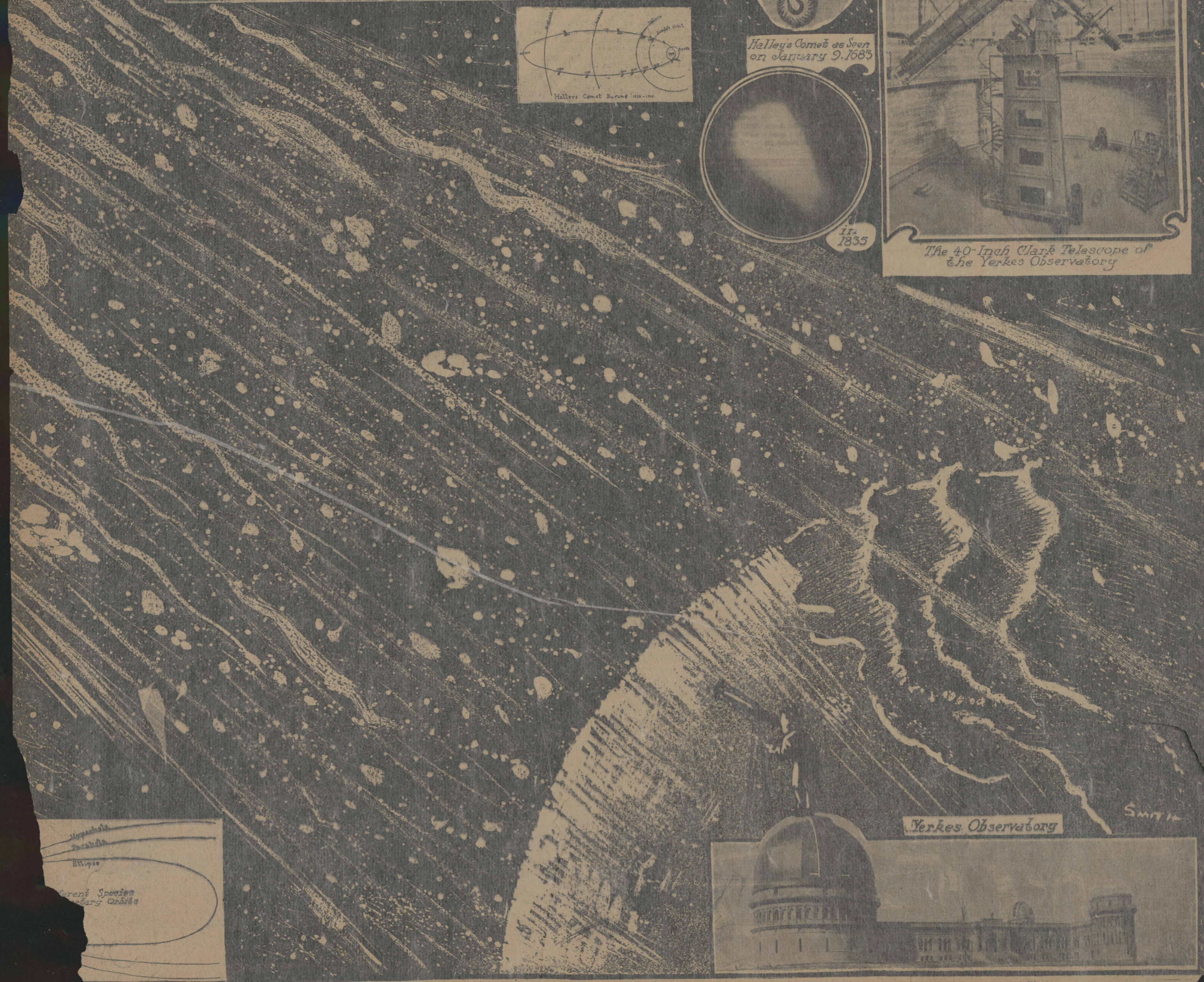
Halley's Comet as Seen on January 9, 1683



1835



The 40-inch Clark Telescope of the Yerkes Observatory



Yerkes Observatory

SMITH