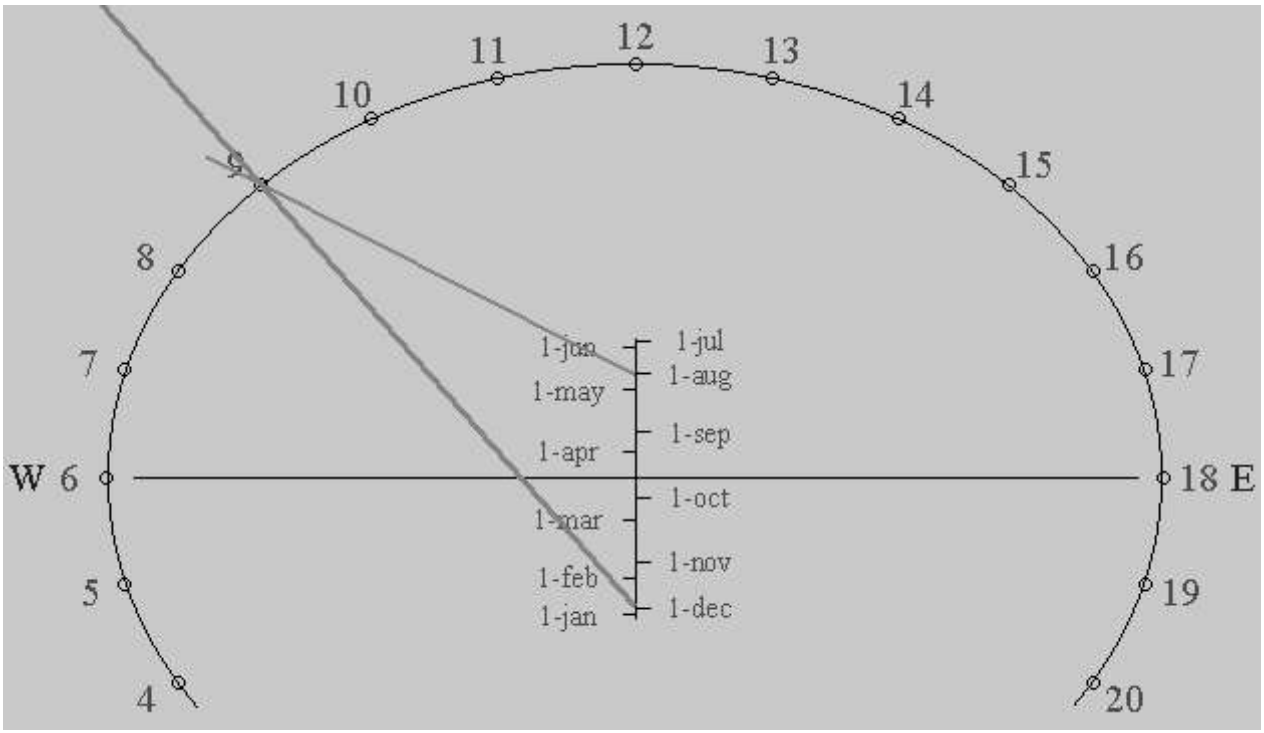
Year 2003

Article of the month January

Analemmatic sundial with hour lines

The picture below shows a horizontal analemmatic dial for 52 degrees latitude.



A vertical rod, the gnomon, is placed on the date strip and time is read at its shadow on an elliptical hour scale. In this example, this is apparent solar time.

Because the gnomon changes position according to date, only hour points can be drawn on the ellipse. For the same hour, the shadow of the gnomon has different directions for differing dates.
The pattern drawing shows two such shadow lines for nine o'clock.
We cannot, therefore, draw hour lines on such a sundial.

However, these hour lines can be made visible.
Connect the hour points to the gnomon foot using elastic cords.
When the gnomon is moved, these cords will continue to form lines between the gnomon foot and the hour points, and can be interpreted as hour lines. They have in fact become moveable hour lines.

A nonsensical joke? Not in the least.

This is a wonderful instrument with which to demonstrate how the direction of the sun for the same hour changes over the course of a year.

Fer de Vries.
Source: Mac Oglesby, Amerika.

Last Modified 01/10/2021 09:11:31Last Modified 01/09/2021 16:50:07

English translation: RH