

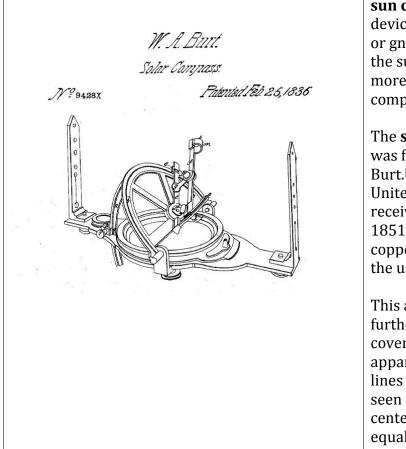
## Compass

A compass is a navigational instrument that measures directions in a frame of reference that is stationary relative to the surface of the earth. The frame of reference defines the four cardinal directions (or points) – north, south, east, and west.\*\*

http://upload.wikimedia.org/wikipedia/commons/9/99/Kompas\_Sofia.JPG

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**sun compass** ('sən 'käm·pəs) (*navigation*) A device which utilizes the shadow of a shadow pin, or gnomon, and a suitable dial to facilitate use of the sun for determination of direction. Read more: http://www.answers.com/topic/suncompass#ixzz2JlcLP368.

The **solar compass**, an astronomical instrument, was first invented and made by William Austin Burt.<sup>[1]</sup> He patented it on February 25, 1836, in the United States Patent Office as No 9428X.<sup>[2]</sup> It received a medal at the Great Exhibition of 1851.<sup>[3]</sup> The Calumet and Hecla Mine, largest copper mine in the world, was discovered through the use of Burt's solar compass

This apparent conical motion of the sun may be further explained by the spoked wheels of a covered wagon. The rim representing the sun's apparent path, the hub, the earth, and the spokes, lines drawn from the sun's path. Then it may be seen that a line drawn from the sun to the Earth's center would pass north or south of the equator, equal in degree to its declination north or south.



These apply to the apparent revolutions of the planets and fixed stars as well.<sup>[8</sup>

The basic principle is that it can help you to accurately calculate either the current time, or a true north bearing (or any other bearing by extension) or your current latitude. All that is required is that you know any two of the three and that you have an accurate Sun Compass/Clock diagram to work from. http://tions.net/page.php?u=p151

