Hyperbolic slot

Do you manage to let the stick go through the slot?



Schwenke den Stab im Kreis.

The stick goes through the slot easily. As it swings, the stick sweeps out a shape in the air that is like a cylinder squashed in the middle.

The slot here is a hyperbola (Fig. 1). That's why the stick passes through the slot.

The shape swept out by the stick is called a hyperboloid (Fig. 1). The silhouette of a hyperboloid is called a hyperbola.



Fig. 1: The sides of this shape are made entirely of straight lines, but the outline is a curve – a hyperbola.