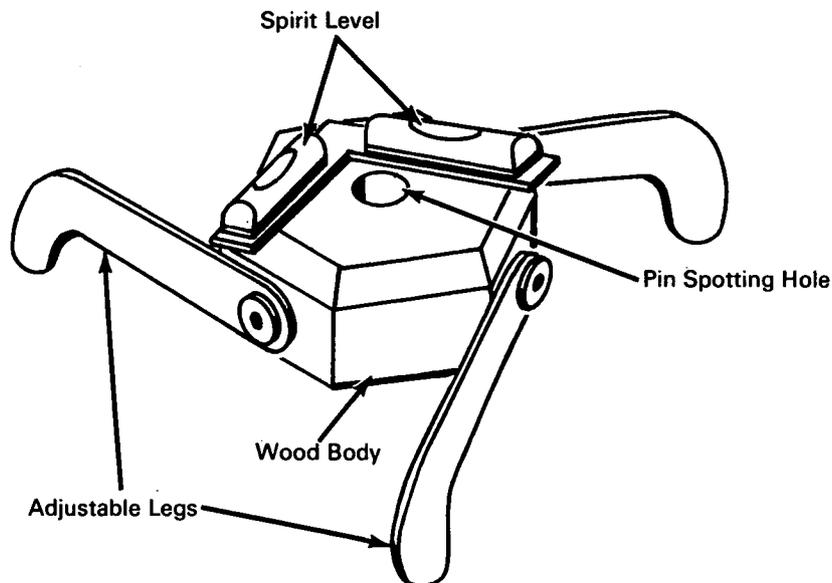


NASA TECH BRIEF



NASA Tech Briefs are issued to summarize specific innovations derived from the U. S. space program and to encourage their commercial application. Copies are available to the public from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151.

Alignment Tool Facilitates Pin Placement on Irregular Horizontal Surfaces



The problem:

To devise a method of spotting and cementing plastic pins on irregular concave or convex surfaces so that they are perpendicular to a horizontal plane.

The solution:

An alignment tool consisting of a wood tripod with individually adjustable legs secured to a wood block in which a hole, corresponding to the diameter of the plastic pins, is bored vertically through the center. Two spirit levels welded together at a 90° angle on a horizontal plane enable the alignment tool to be adjusted to a true (0°) vertical position.

How it's done:

The alignment tool is placed over the work area with the hole in the wood block located directly over the point where the plastic pin is to be cemented. The spirit level is placed on the wood block and the tripod legs are carefully adjusted until a zero bubble is observed in each spirit level. The plastic pin is inserted in the wood block hole and cemented in place on the work area.

Notes:

1. The tripod legs were cut to shape from plywood, centered 120° apart on the side of the wood block, and secured with washers and wood screws.

(continued overleaf)

2. The spirit levels were welded together for ease in handling.
3. Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Langley Research Center
Langley Station
Hampton, Virginia 23365
Reference: B66-10410

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

Source: J. V. Boyle
(Langley-219)