

NASA TECH BRIEF

Ames Research Center

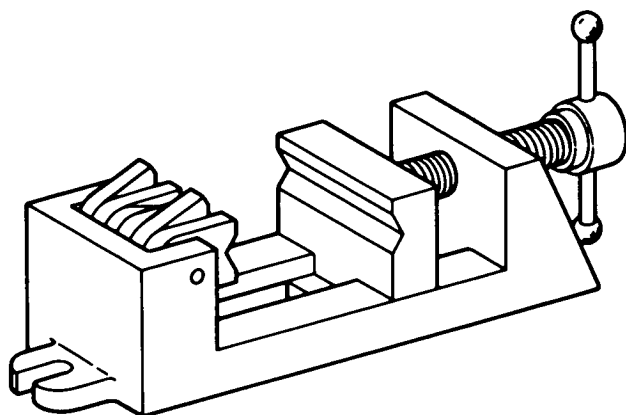


NASA Tech Briefs announce new technology derived from the U.S. space program. They are issued to encourage commercial application. Tech Briefs are available on a subscription basis from the National Technical Information Service, Springfield, Virginia 22151. Requests for individual copies or questions relating to the Tech Brief program may be directed to the Technology Utilization Office, NASA, Code KT, Washington, D.C. 20546.

Vise to Hold Bones or Other Irregular Objects

The problem:

To hold irregular or slippery objects such as bones in order to cut sections or to perform other operations.



The solution:

A vise with a stationary vee-shaped jaw and a segmented notched jaw.

How it's done:

The vise is constructed as shown in the diagram. The jaw which is attached to the screw has a deep 45° notch, and it is gibbed loosely; additionally, to permit adaptation to irregular objects, the screw is fabricated slightly smaller than the tapped hole in the body of the vise. The other jaw, which ordinarily is completely immobile in vises, has a face made up of a cluster of 45-degree-notched segments of hardened steel. The cluster of segments is snugly pinned to the vise body with a hardened dowel placed in

such a position that each segment can only move in a small arc in a plane perpendicular to the axis of the dowel. When an object is compressed between the jaws of the vise, the segments in the cluster are moved into positions which accommodate irregularities; thus, the notches of a number of segments are brought into contact with the object. With ordinary vee-jaw vises, each jaw seldom will make contact with more than two spots on an irregular object; in contrast, a jaw with notched segmented sections makes contact at many points and, since each contact point is a source of friction, irregular objects are held securely.

Note:

No additional documentation is available. Specific questions, however, may be directed to:

Technology Utilization Officer
Ames Research Center
Moffett Field, California 94035
Reference: B72-10569

Patent status:

Inquiries concerning rights for the commercial use of this invention should be addressed to:

NASA Patent counsel
Mail Code 200-11A
Ames Research Center
Moffett Field, California 94035

Source: Richard H. Dowell
Ames Research Center
(ARC-10679)

Category 07