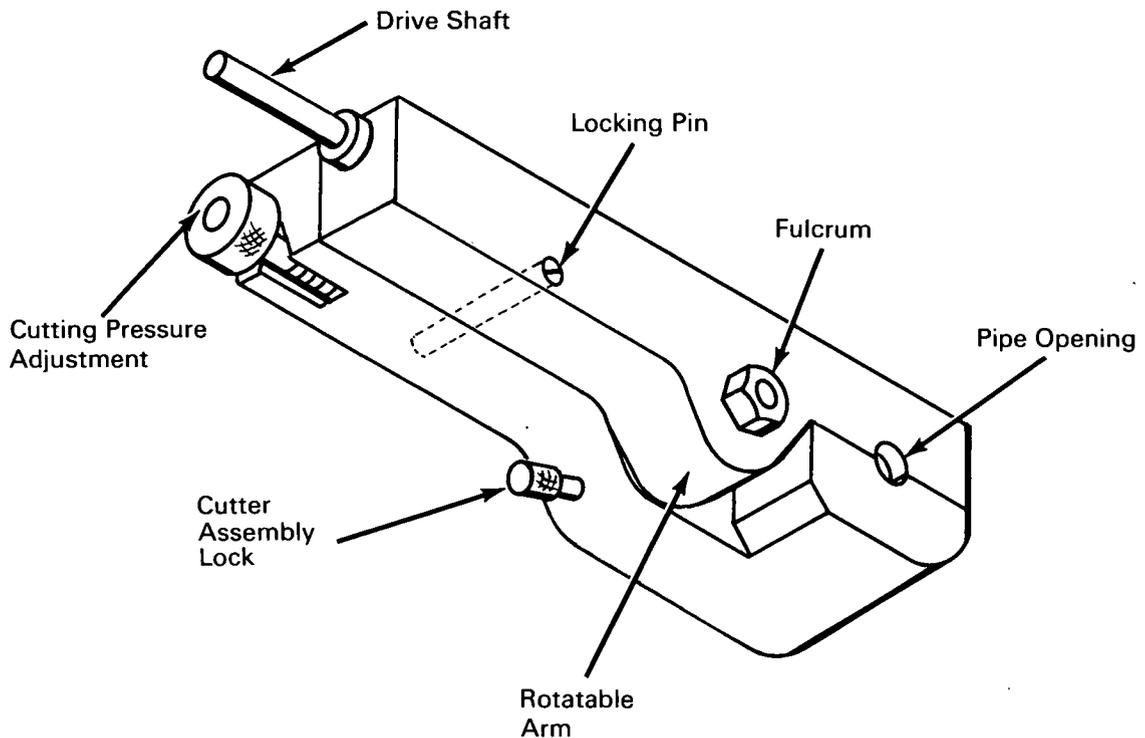


NASA TECH BRIEF



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Pipe Cutting Tool is Useful in Limited Space



The problem:

To design a pipe cutting tool suitable for use in areas of limited space.

The solution:

A portable tool in which the pipe is clamped and then cut by a rotating cutter assembly that is internally connected to a drive shaft engaged in the chuck of a portable electric drill. The tool is held in a fixed position during the cutting operation.

How it's done:

The rotatable arm is opened to allow insertion of the pipe, which is then clamped in place by closing the rotatable arm, tightening the cutter assembly lock knob, and inserting the locking pin. The blade cutting pressure is then adjusted and a portable electric drill is connected to the cutter drive shaft.

As the cutting progresses, it may be necessary to tighten the cutting pressure adjustment knob from

(continued overleaf)

time to time until the pipe is severed. When cutting is completed, the clamping members are opened and the blades are backed off to prevent accidental overloading of the cutter assembly at the start of the next cutting operation.

Patent status:

Title to this invention, covered by U.S. Patent No. 3,136,057, has been waived under the provisions of

the National Aeronautics and Space Act (42 U.S.C. 2457 (f)) to the McDonnell Aircraft Corporation, Box 516, St. Louis, Missouri, 63166.

Source: Donald D. Jones and
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of McDonnell Aircraft Corporation
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