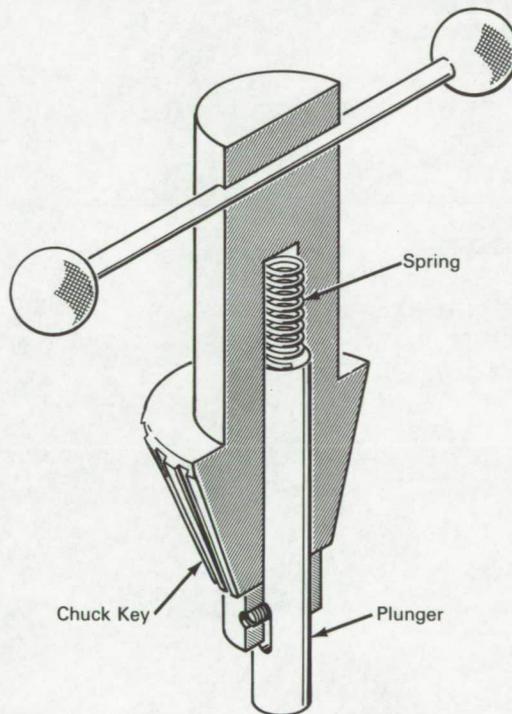


# NASA TECH BRIEF



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## Lathe Chuck Key Incorporates Safety Feature



### The problem:

To design a lathe chuck key that cannot inadvertently be left in the chuck when the lathe is started. A key retained in a chuck would fly out on startup of the lathe and present a potential hazard to personnel and equipment in the shop area.

### The solution:

A chuck key incorporating a spring loaded plunger

that automatically ejects the key from the chuck when hand pressure is released.

### How it's done:

The spring loaded plunger is positioned in a hole drilled through a central portion of the key. To insert the key in the chuck, sufficient hand pressure must be exerted to overcome the spring load, and depress the plunger into the hole. When the pressure is released

(continued overleaf)

after the chuck is tightened, the plunger will eject the key from the chuck.

**Note:**

Inquiries concerning this innovation may be directed to:

Technology Utilization Officer  
Manned Spacecraft Center  
Houston, Texas, 77058  
Reference: B66-10243

**Patent status:**

No patent action is contemplated by NASA.

Source: G. L. Christman  
of North American Aviation, Inc.  
under contract to  
Manned Spacecraft Center  
(MSC-506)