

# NASA TECH BRIEF

## Langley Research Center

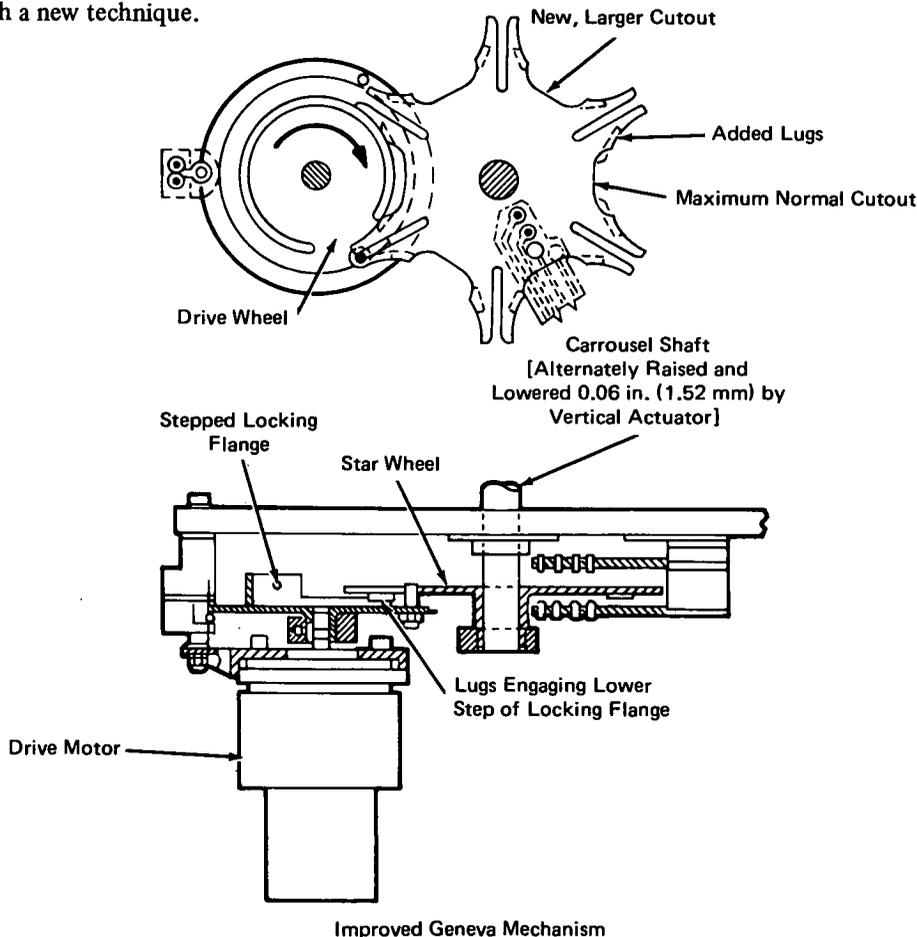


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### Improved Geneva Mechanism

The geneva mechanism has been used for many years as a means of providing intermittent motion. The mechanism is normally locked during dwell times by a disk or flange on the input driver. However, any residual torque on the star wheel, just before unlocking or just after locking, can produce chatter, galling, excessive wear, or even a complete jam of the mechanism. A partial solution to these problems in the past has been to cut out a small portion at the center of each station, as indicated in the illustration. This minimized the problems, but a more complete solution is obtained with a new technique.

For improved geneva mechanism operation, the locking disk (flange) is stepped and a lug is added to each arm of the star wheel, as shown in the illustration. These changes allow a much longer cutout in the star wheel stations, essentially eliminating chatter and wear. The jamming problem can be solved by extending the star wheel arms and flaring the slots. However, this cannot be done on a six-or-more-station mechanism with the driver on a through shaft because the extensions would hit the shaft.



(continued overleaf)

**Note:**

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

Technology Utilization Officer  
Langley Research Center  
Mail Stop 139-A  
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Reference: B74-10030

**Patent status:**

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