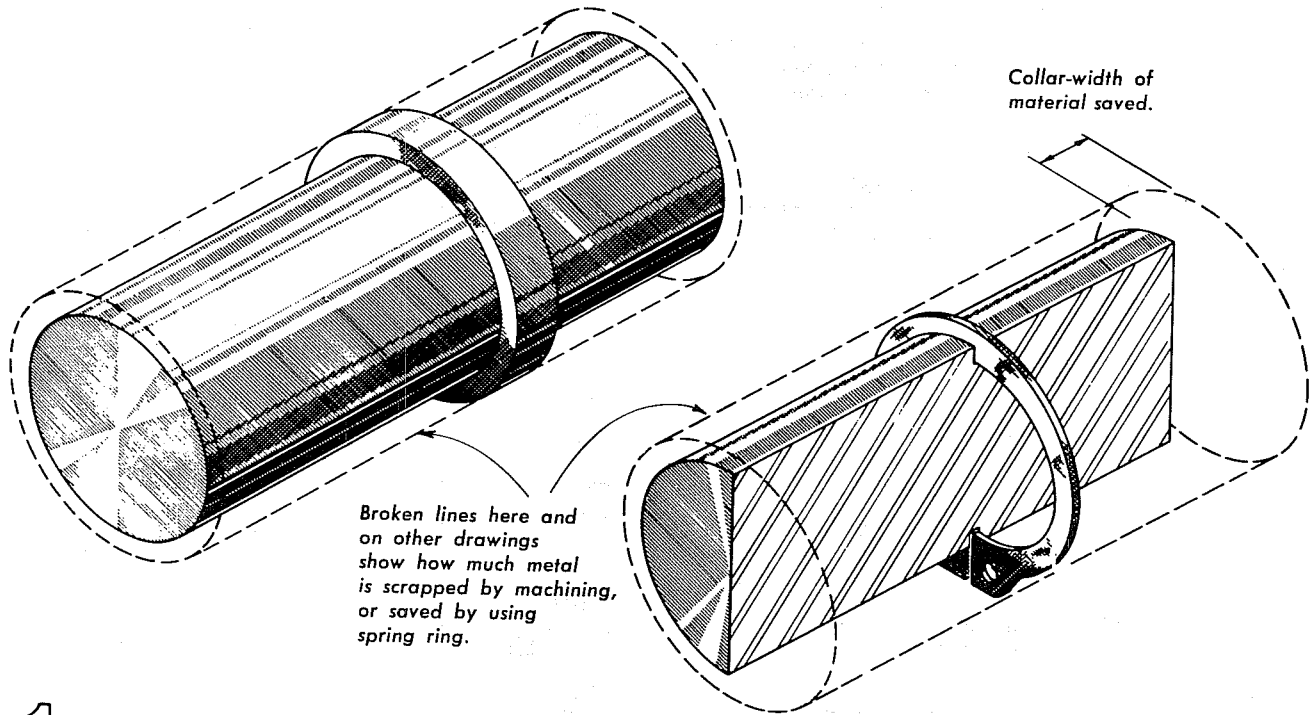


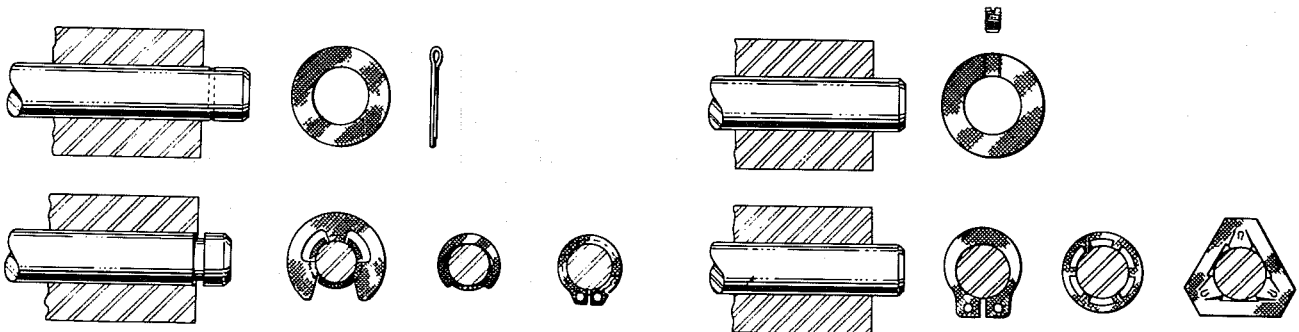
8 Fastener Comparisons

A variety of basic applications showing how these rings simplify design and cut costs.



1

MACHINED SHOULDERS are replaced with savings in material, tools and time. Grooving for ring can be done during a cut-off, or other machining operation.

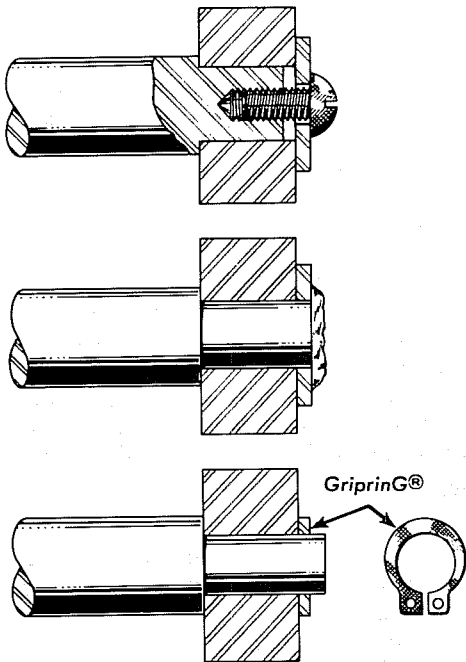


2

RINGS THAT CAN REPLACE cotter pin and washer are economical since only one part is required and pin-spreading operation is not needed thus cutting time and costs.

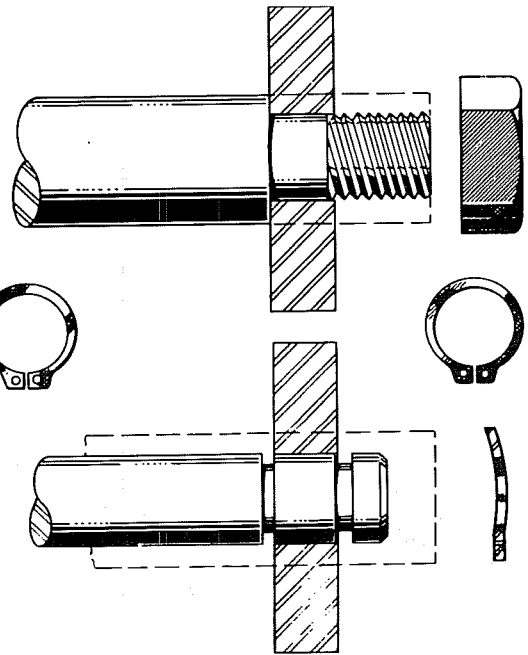
3

WHEN COLLAR AND SETSCREW are substituted by ring, risk of screw vibrating loose is avoided. Also, no damage to shaft by screw point occurs — a frequent cause of trouble.



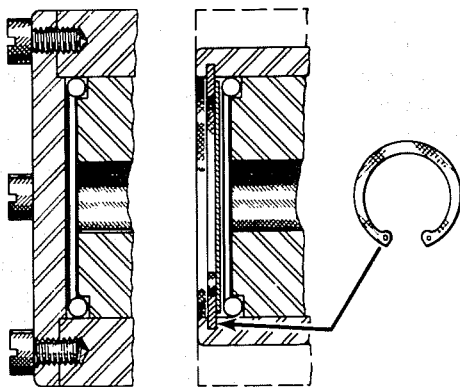
4

RETAIN COMPONENTS on diecastings with a simple-to-use GriprinG. Slipped over the end of the shaft, the ring exerts a frictional hold against axial displacement of the shaft.



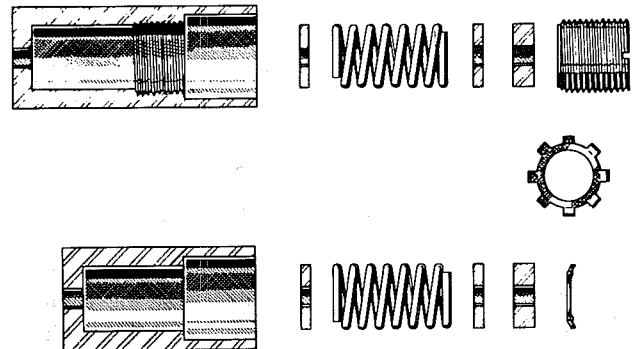
5

SHOULDER AND NUT are replaced by two retaining rings. A flat ring replaces the shoulder, while a bowed ring holds the component on shaft for resilient end-play take-up.



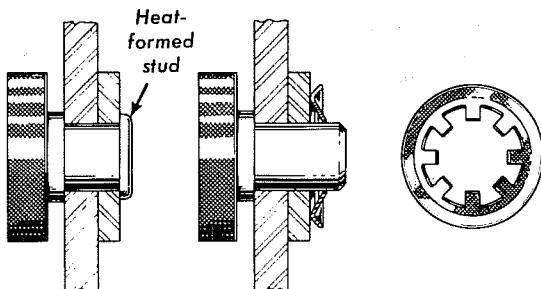
6

COVER-PLATE ASSEMBLY has been re-designed (right drawing) to avoid use of screws and machined cover-plate. Much thinner wall can be used — no drilling or tapping.



7

THREADED INTERNAL FASTENERS are costly because of expensive internal threading operation. Simplify by substituting a self-locking retaining ring — see lower drawing.



8

HEAT-FORMED STUD provides a shoulder against retained parts but must be scrapped if the parts must be disassembled for service. Self-locking ring can be easily removed.