

Cutting Woodruff Keyways in the Lathe

The drawing gives a general idea of a special attachment made for cutting keyways for Woodruff keys in the lathe, the cutter being held in the lathe headstock and backed by the tailstock when necessary. The actual construction of the attachment depends on the type of lathe to which it is fitted, and it may be built up from stock materials or from special castings, as convenient. A base, preferably made of cast iron, is clamped to the lathe bed, the base being planed to fit on the ways. The base has a split boss at each end, with vertical holes and clamp bolts; through the holes are fitted two steel columns, one of

which has a hinge joint at the upper end, while the other is bored and threaded for a feed screw. The base also has two upright guides, the inside surfaces of which are machined parallel. Hinged to the rear adjustable column is a long cast-iron V-block or guide, the vee being planed the full length; this is to hold the shaft or work being key-seated. The feed screw merely rests against the lower end of the V-block, which drops by its own weight as the screw is turned down. Two or more C-clamps hold the work firmly in the block while the keyway is being cut. Various sizes of work and cutters are accommodated by adjusting the columns so that the work will sit just below the cutter before the feed screw is operated.

