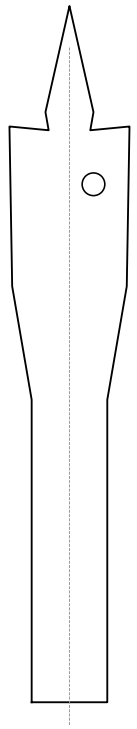
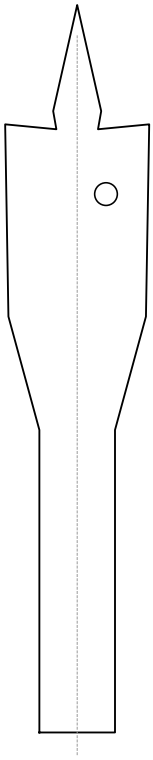
Southall diamond-point spade bits (US 3,920,350, 1975): grinding template, FULL SIZE

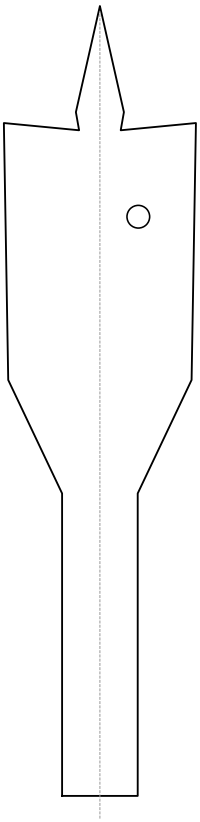
Outlines for 5/8, 3/4 and 1 inch bits from 10 mm octagonal tool steel; the shank continues below.



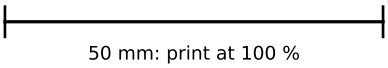
15.875 mm



19.05 mm



25.4 mm



50 mm: print at 100 %

Southall's point (his one-inch figures, used on all three): 1/4 in at its widest, flaring out at 10 deg for 2.4 mm from the blade, then closing at 25 1/2 deg to the tip. Cutting edges lean forward 5 1/2 deg towards the outside. Blade sides narrow by 1 deg towards the shank. Circle: the 3 mm hanging hole.

Grind the bevels after the outline (see the steps): sides 2 deg, cutting edges and point edges 10 deg, opposite ways on the two sides; point faces thinned to meet at 8 deg at the tip; corners at the point's root undercut round.