

Wire and drill sizes arranged consecutively, 942
 Wiring dies, 1280
 Wood, speed for drilling, 126
 turning, speeds, 898
 weight of various kinds, 1104, 1105
 Wood screws, angle of head, 696
 coach or lag, 702

TABLE I.—SUGGESTED SPEEDS FOR HIGH-SPEED DRILLS

	SPEED IN FEET PER MINUTE
Mild machinery steel, 0.2 to 0.3 centimeter.....	80 to 110
Steel, 0.4 to 0.5 centimeter.....	70 to 80
Tool steel, 1.2 centimeters.....	50 to 60
Steel forgings.....	50 to 60
Alloy steel.....	50 to 70
Stainless steel.....	30 to 40
Soft cast iron.....	100 to 150
Hard chilled cast iron.....	70 to 100
Malleable iron.....	80 to 90
Ordinary brass and bronze.....	200 to 300
High-tensile bronze.....	70 to 150
Monel metal.....	40 to 50
Slate, marble, and stone.....	15 to 25
Aluminum and its alloys.....	200 to 300
Magnesium and its alloys.....	250 to 400
Bakelite.....	100 to 150
Wood.....	300 to 400

Carbon drills should be run at speeds of from 40 to 50 per cent of those given above.

898 SHOP AND DRAWING-ROOM STANDARDS

A.G.M.A. STANDARD KEYWAYS FOR HOLES IN GEARS

The May 1931 revision of the "Recommended Practice of the American Gear Manufacturers' Association for Standard Keyways for Holes in Gears" provides an enlarged and revised table of keyways for holes in gears and key-stock sizes.

Keyways are to be cut from exact nominal size to plus 0.002 in width, and the depth shall be nominal to plus $\frac{1}{64}$ inch for straight keys. For taper keys, the depth shall be from nominal to $\frac{1}{64}$ minus. For heat-treated pinions, the depth shall be $\frac{1}{32}$ inch to plus $\frac{1}{64}$ inch over nominal size within $\frac{1}{32}$ -inch R in corner of the keyway.

It is understood that these keys are to be cut from cold-finished stock and are to be used without machining, as this A.G.M.A. standard is for general industrial practice. The keystock shall be cold-rolled steel 0.10 to 0.20 carbon.

TABLE 44.—KEYWAYS IN GEAR HUBS

SPEED FOR WOOD TURNING

A good average speed for a wood-turning lathe is a surface or cutting speed of from 1,000 to 1,500 feet per minute. Where work does not exceed 1 inch in diameter, the lathe may be run 3,000 revolutions per minute; for 2-inch stock, 2,500; for 3-inch stock, 2,000, or a little less; and for larger stock, the speed is reduced in proportion.

COOLING HOT BEARINGS

A hotbox can be cooled by pouring sulphur on the bearing. It melts at 200°F and puts a smooth surface on both journals and