Hat-fin'ish-ing Lathe. A machine introduced by John T. Waring. It has a chuck fitted to a lathe spindle and carrying the hat, which, while rapidly revolving, is rubbed with sand or emery paper held against it. This is regarded as a very great advance in the art of hat-making machinery. Previous to this time the wool hat-body, after being sized, was rubbed with pumice-stone and then put on a block to be ironed off and touched up with sand-paper.

The finishing-lathe illustrated in Fig. 1324 is one of the forms yet in use, although in its first purpose, that of sand-papering hats, it has been superseded by later invention.. It
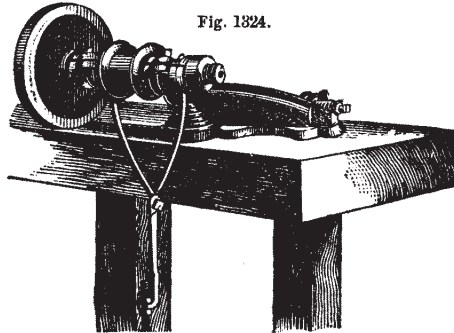

Fig. 1324.

Hat-finishing Lathe.

is now used to retouch the hat after it has been put on the finishing-block, and also to lay the nap with a piece of felt pressed by hand upon the surface while the hat upon the chucked block is revolving.

The spindle has its bearings in an adjustable frame which is held up by a helical spring. The lathe spindle is driven by a belt from a pulley above, and when the spindle is elevated by the spring, the loose belt slips on the spindle pulley. When the spindle is depressed by the foot of the operator on the treadle, the pulley is tightened against the belt, and the spindle receives rotation.

When wool hats came into more general use, oval blocks conforming more closely to the shape of the head took the place of the round blocks before in use, and this change made it necessary to use a lathe which turned in an oval path, to be able to finish the oval part of the side crown.

Fig. 1325 shows the Eickemeyer oval hat lathe, the machine in most general use

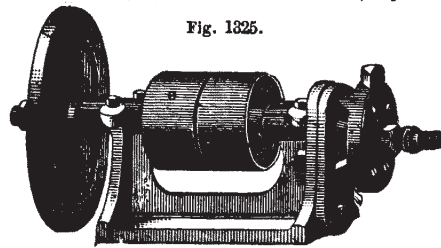An oval chuck, adjustable for various ovals, is placed in

Fig. 1325.

Eickemeyer's Oval Hat Lathe.

front of a lathe spindle, and is provided with a screw to receive the chuck in the hat-block, while an adjustable nut on the chucking screw is used to bring the hat-block into proper position to the oval.

This lathe is used to finish the side crown and brim while the tip is still finished on a round lathe.