

### Ver'ti-cal Spin'dle-step.

Fig. 6973 shows Dunklee's self-oiling step. *a* is the spindle; *b*, the step resting in the socket *h*, which has a chamber beneath, communicating with the oil-chamber *c*, which is filled with the lubricant to a higher level than the foot of the spindle. The lubricant ascends through an aperture in the bottom of the step and through vertical grooves on its interior, shown at *d*, and, under the influence of centrifugal force, flows over the top of the step and back into the oil-chamber through the aperture *e*. The oil and sediment may be removed by unscrewing the plugs *f g*.

Great variety is shown in the steps for spindles of spinning-machines.

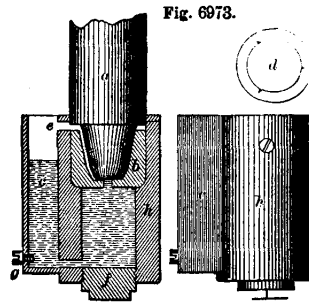


Fig. 6973.

*Dunklee's Self-Oiling Step for Vertical Spindles.*