T. WILBRAHAM.

Metal-Turning Lathe.

No. 162,444. FIG. 1. Patented April 20, 1875.

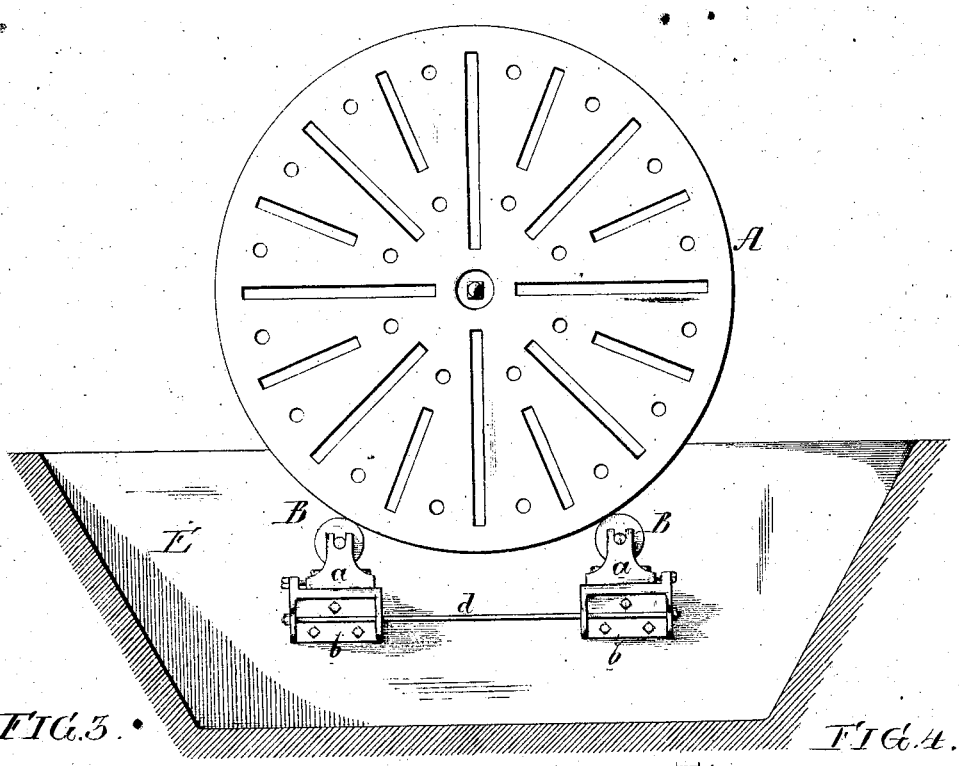
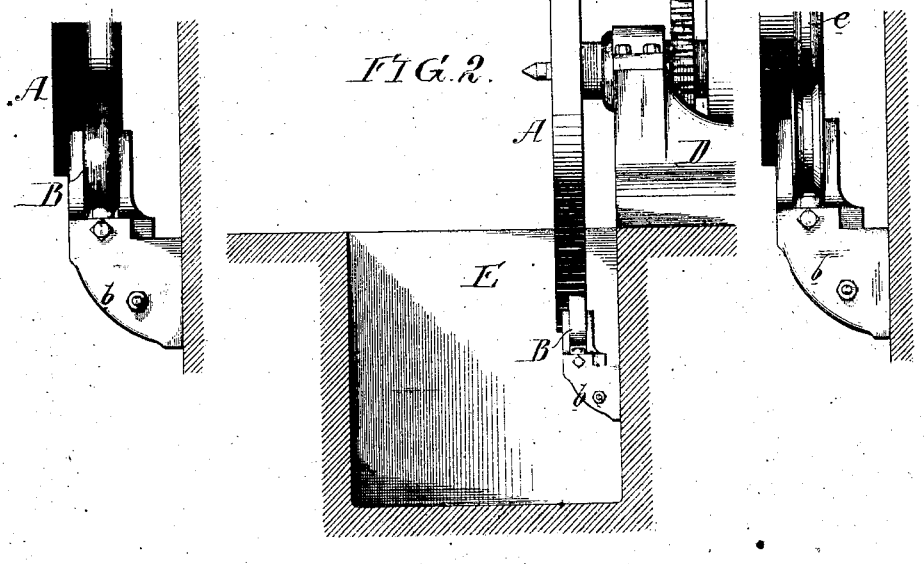


FIG. 3.

FIG. 4.



Witnesses,
John K. Rupertus.
Thomas McElvain

Thomas Wilbraham
by his Attor
Howson and Sons

UNITED STATES PATENT OFFICE.

THOMAS WILBRAHAM, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN METAL-TURNING LATHES.

Specification forming part of Letters Patent No. **162,444**, dated April 20, 1875; application filed December 4, 1874.

To all whom it may concern:

Be it known that I, THOMAS WILBRAHAM, of Philadelphia, Pennsylvania, have invented certain Improvements in Metal-Turning Lathes, of which the following is a specification:

The object of my invention is to increase the capacity of a lathe for turning heavy objects by combining with the face-plate A supporting and steadying rollers B B, as shown in the accompanying drawing, in which—

Figure 1 is a vertical section of the lathe, showing the front of the face-plate; Fig. 2, a side view of part of the lathe; and Figs. 3 and 4, enlarged views, exhibiting different modifications of the steadying-rollers.

D represents part of the head-stock of a lathe, and A the face-plate, the lower portion of which is contained within a recess, E, formed in the bed, or in a pit made in the foundation.

In lathes of this class it is frequently necessary to turn heavy objects, which are attached to the face-plate, the whole being carried by the spindle, which, in many cases, is not sufficiently strong for the purpose, especially if the turning-tool is making a deep cut, when tremor of the face-plate and the object attached to it will take place.

In order to remedy this defect, I use two rollers or pulleys, B B, each of which is carried by a frame, *a*, secured to and rendered adjustable on a bracket, *b*, attached to the bed of the lathe or to the foundation, the two brackets being preferably connected together by a stay-bolt, *d*.

When a heavy object has to be attached to the face-plate, the two frames *a a* should be so adjusted that their rollers B B will bear against the edge of the said plate, and thus serve to support the same and leave the lathe-spindle free from undue strain. By this arrangement the perfect steadiness of the face-plate is insured, even when the heaviest objects are attached to it, and when the deepest cuts are made by the turning-tool.

As shown in Fig. 2, the edge of the face-plate is straight, and so are the edges of the rollers or pulleys B B, but the edge of the face-plate may be grooved, as shown in Fig. 3, and the edges of the pulleys are made to accord with the groove.

The face-plate may have on its edge a V-shaped rib, *e*, as shown in Fig. 4, the pulleys being grooved accordingly.

I claim as my invention—

The combination described of the face-plate of an ordinary lathe with adjustable supporting-pulleys B B, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS WILBRAHAM.

Witnesses:

HUBERT HOWSON,
HARRY SMITH.