No. 673,406. Patented May 7, 1901.

J. MIDBÖE, JR.

METAL TURNING MACHINE.

(Application filed Oct. 25, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

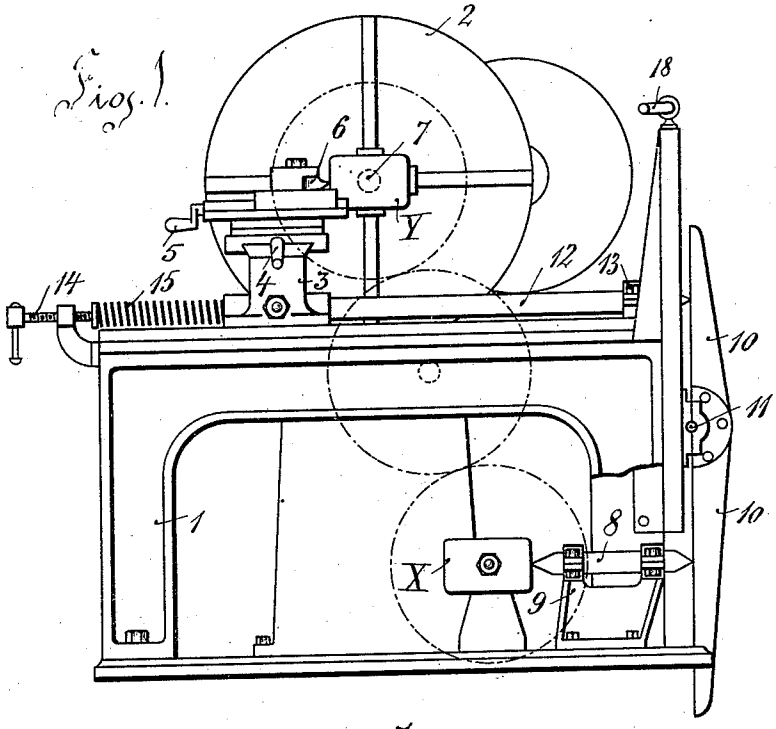
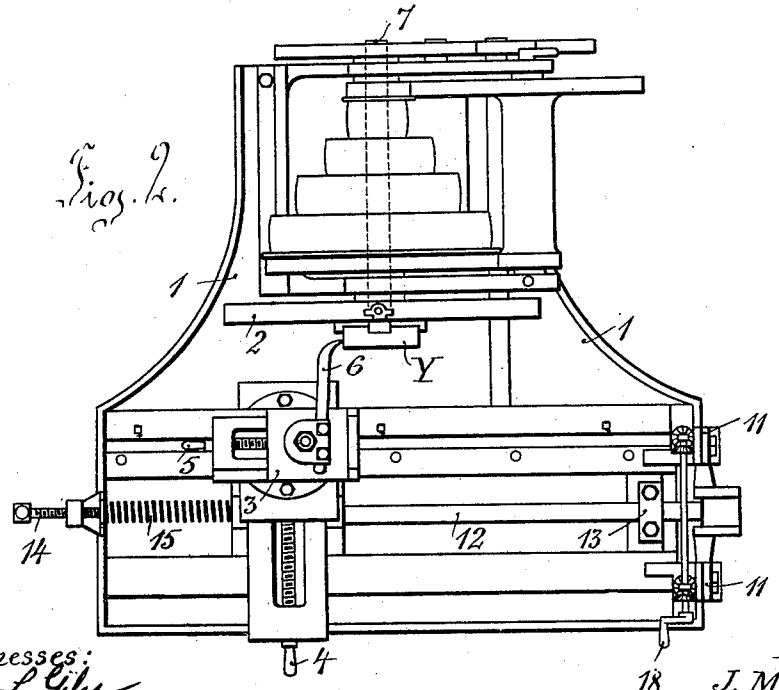


Fig. 2.



Witnesses:
Ella L. Giles
Attorney

Inventor:
J. Midböe jun.
per: Richards & Co
Attorneys

No. 673,406. Patented May 7, 1901.

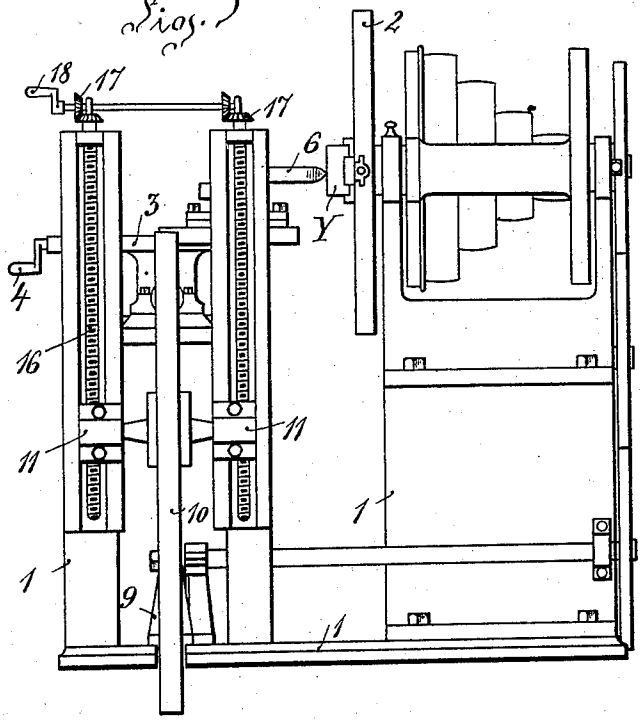
J. MIDBÖE, JR.

METAL TURNING MACHINE.

(Application filed Oct. 25, 1900.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 3



Witnesses:
Ella L. Giles
Attorney

Inventor:
J. Midböe jun
per: Richards & Co
Attorneys.

UNITED STATES PATENT OFFICE.

JOHAN MIDBÖE, JR., OF STAVANGER, NORWAY.

METAL-TURNING MACHINE.

SPECIFICATION forming part of Letters Patent No. 673,406, dated May 7, 1901.

Application filed October 25, 1900. Serial No. 34,240. (No model.)

To all whom it may concern:

Be it known that I, JOHAN MIDBÖE, Jr., a subject of the King of Sweden and Norway, and a resident of Stavanger, Norway, have invented certain new and useful Improvements in Metal-Turning Machines, of which the following is a specification.

My invention relates to improvements in machines for turning.

The invention consists, essentially, in the special arrangement by which the movement or guiding of the tool is effected from the model or templet serving as the model from which the object is to be formed.

In the accompanying drawings, Figure 1 is an end view of a turning-lathe having my improvements applied thereto. Fig. 2 is a plan view, and Fig. 3 is a side view thereof.

Upon the frame or foot 1 of the lathe is mounted in the usual manner the spindle 7, with its face-plate 2.

3 is the tool-holder, with the usual adjusting-screws 4 and 5 for the tool 6.

X is the templet or model in conformity with which the work is to be machined. In the drawings I have shown as an example a rectangular block with rounded edges as the work to be machined.

The model X is rotated from the spindle 7 through the medium of suitable gearing, as indicated by dotted lines in Fig. 1, and the tool is guided by the model by the following arrangement—that is to say, a sliding spindle 8, which is provided with conical ends and can be moved longitudinally backward and forward in the bearing 9, is arranged with one end bearing against the model X and the other against a double arm or lever 10, which oscillates on pivots 11. The upper arm of the lever bears against a spindle or rod 12, one end of which can slide longitudinally in the bearing 13 and the other end of which is rigidly connected with the sliding tool-holder 3, this movement being counteracted by a spring 15, placed between the tool-holder and a screwed spindle 14. When the model X is rotated by the spindle 7, together with the face-plate, the spindle 8 will by reason of the pressure of the spring 15 always bear against the periphery of the model and follow the said periphery during the rotation of the model, whereby the tool 6 will have imparted to it a corresponding longitudinal movement to and from the work Y, which is thus machined in such a manner that it receives a shape corresponding to that of the model X.

The pivots 11 for the lever 10 can be raised or lowered by the screwed spindles 16, on which the bearings 11 are mounted. These spindles can be turned by the bevel-wheels 17 17 from the handle 18, as shown in the drawings, or they can be connected by suitable gearing with the adjusting-screw 5 of the tool-holder. By this adjustment of the lever 10 the movement transmitted from the model X to the work Y can be made greater or smaller, so that varying dimensions can be given to the work Y.

Instead of the spring 15 weights or other similar arrangements can be used. Furthermore, by varying the gearing between the spindle 7 and the model X it will be understood that shapes can be given to the work Y quite different from that of the model.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination, the rotating model, the sliding piece bearing against the same, the two-armed pivoted lever having one arm contacting with said sliding piece, a tool-holder having a rod contacting with the opposite arm of said lever and pressed normally toward the same, and means for shifting said lever with relation to said rod and sliding piece, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JOHAN MIDBÖE, JR.

Witnesses:
KATHINKA PAÜLSSEN,
AXEL LAHN.