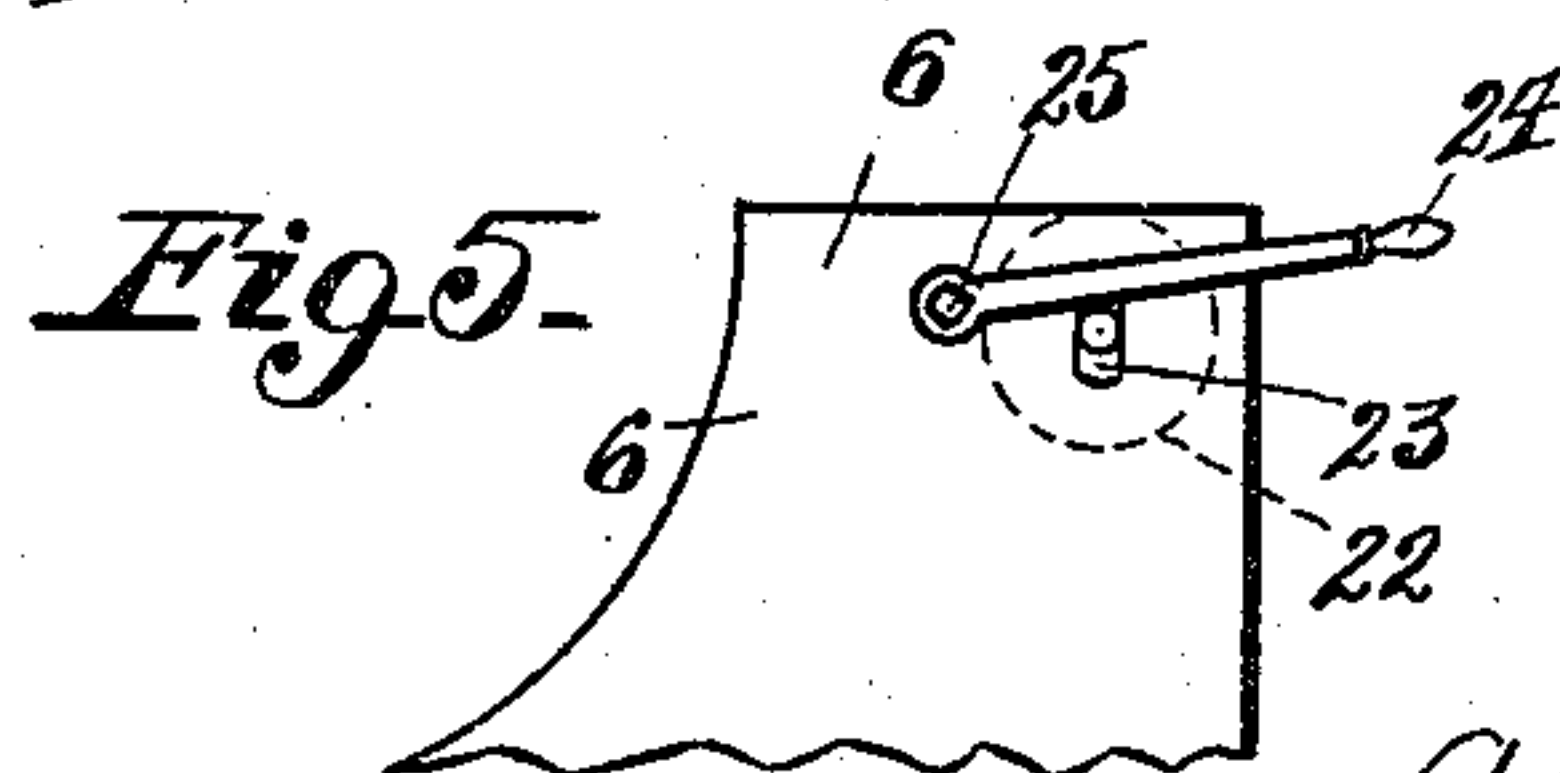
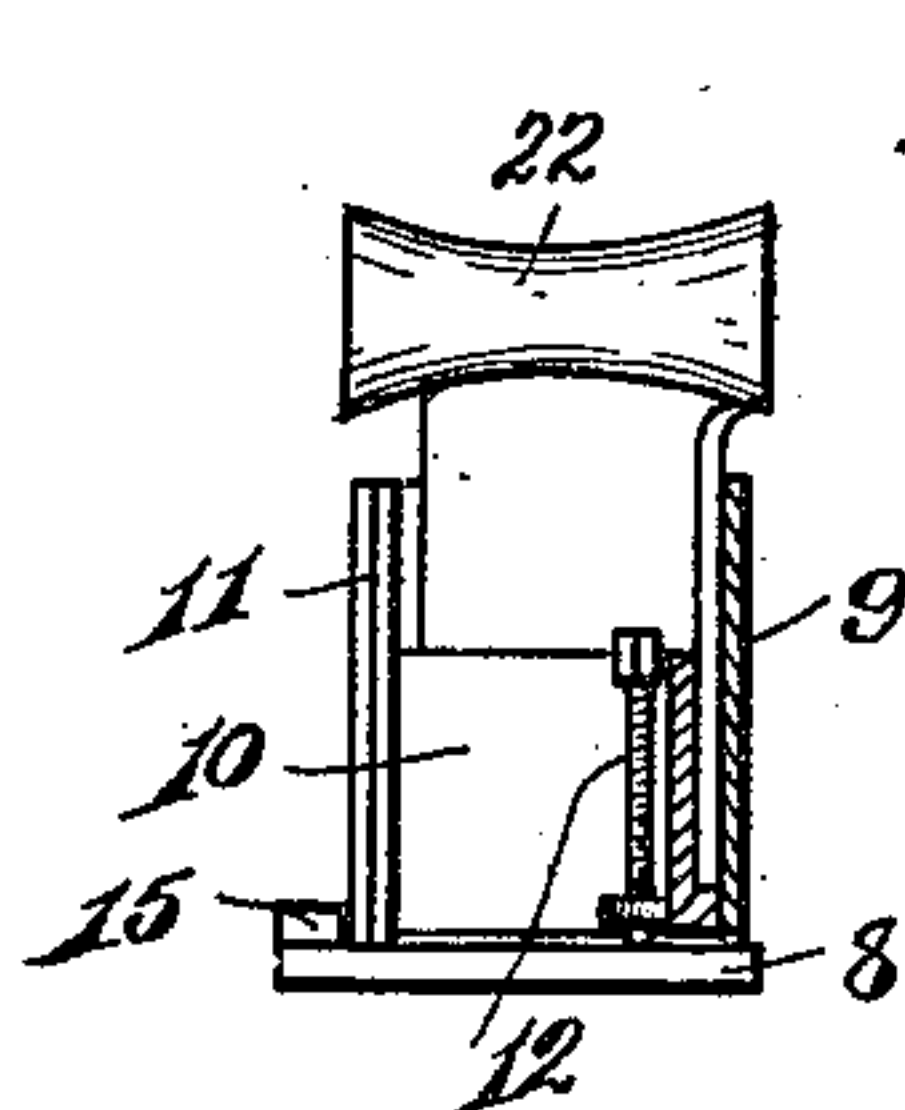
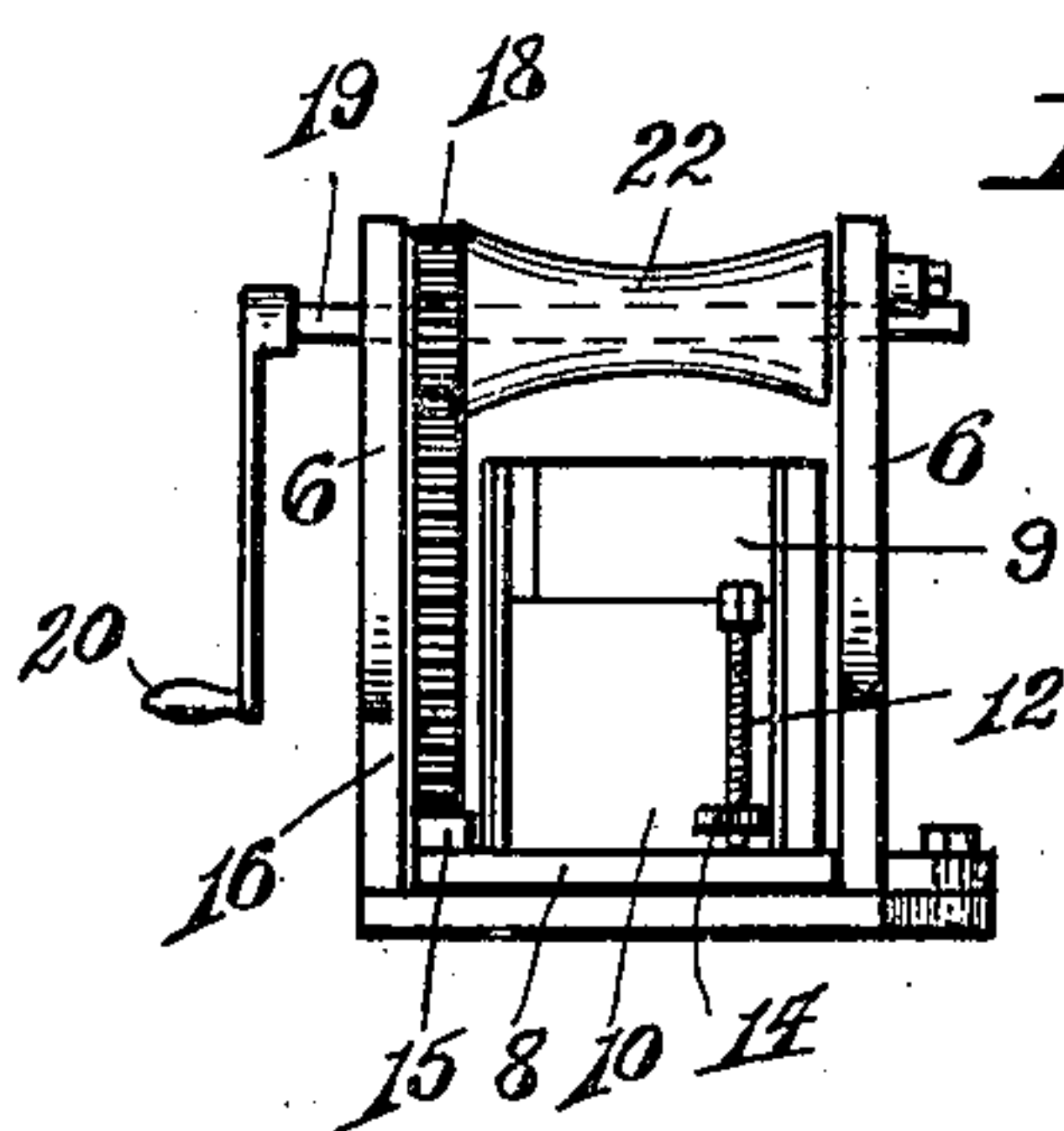
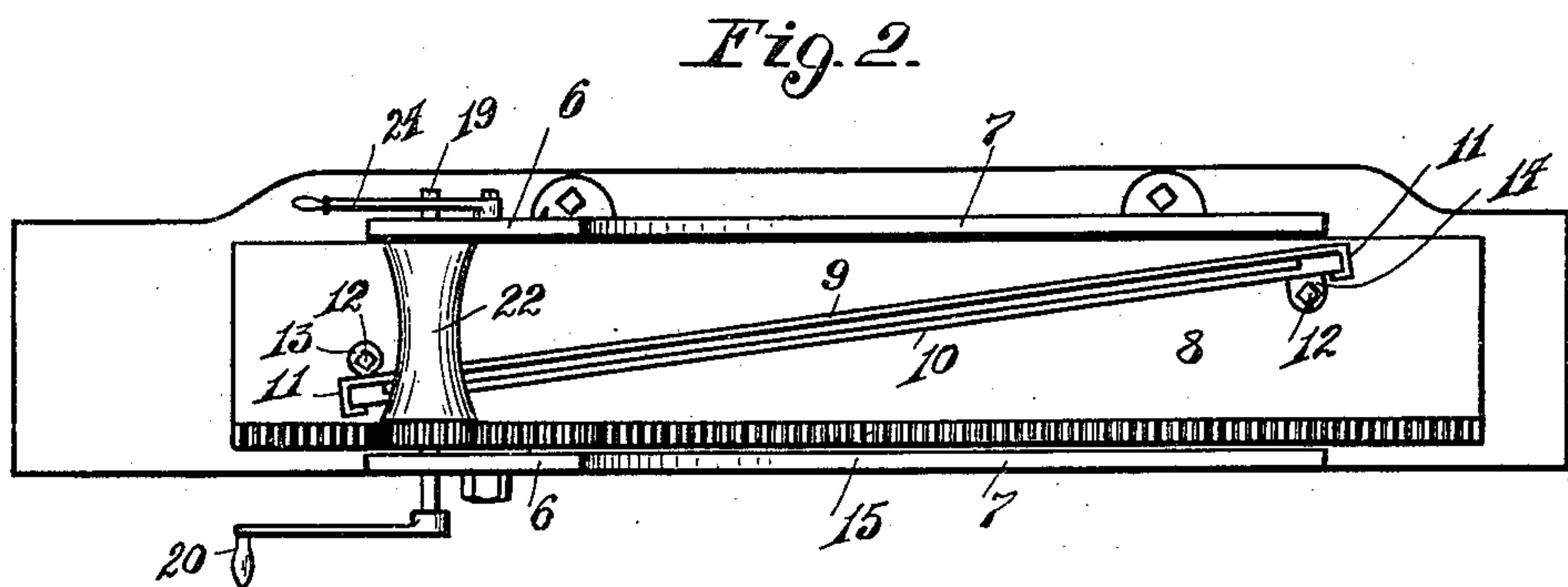
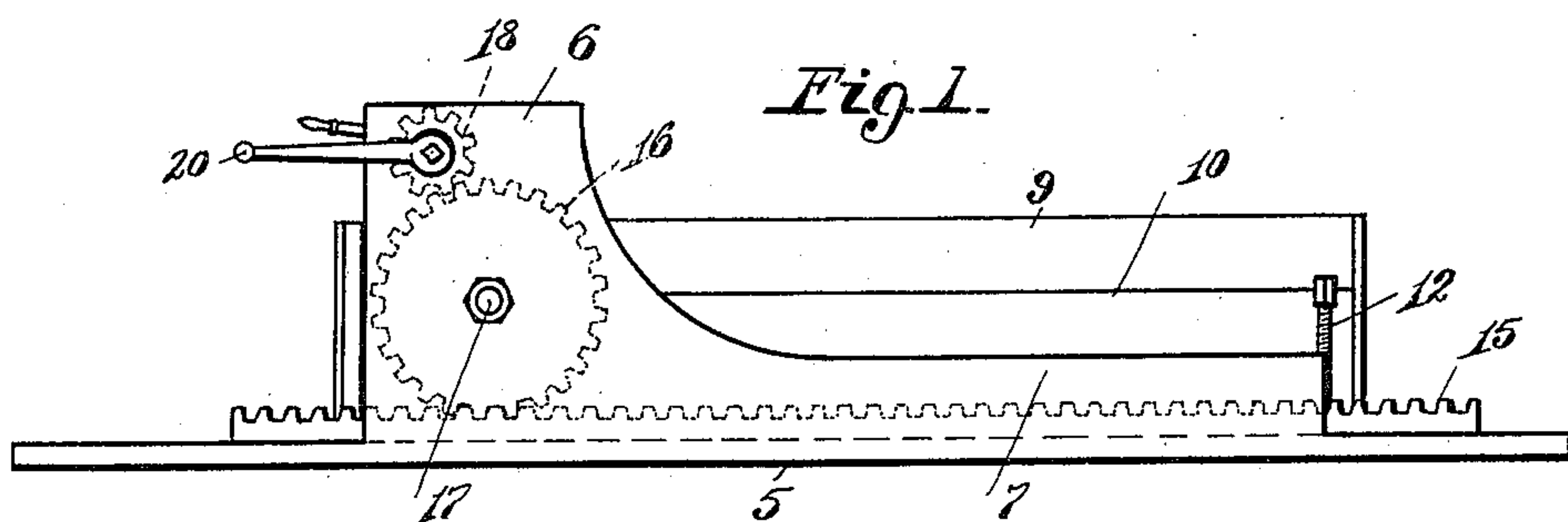


A. L. BLODGETT.  
EDGE TURNING DEVICE FOR BLADES.  
APPLICATION FILED APR. 23, 1910.

990,518.

Patented Apr. 25, 1911.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ALANDO L. BLODGETT, OF SOUTH BEND, INDIANA.

EDGE-TURNING DEVICE FOR BLADES.

990,518.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed April 23, 1910. Serial No. 557,286.

*To all whom it may concern:*

Be it known that I, ALANDO L. BLODGETT, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Edge-Turning Devices for Blades, of which the following is a specification.

My invention relates to improvements in means for turning the edge of blades, more particularly scraper blades, such as are used in connection with floor dressing machines, or which are manipulated without the use of a machine.

The object of the present invention is to provide an edge turning device which is simple of construction, easy of operation and efficient for the purpose designed.

A further object of the invention resides in the provision of means whereby an edge may be uniformly turned upon a blade having a curved edge.

With these and other objects, the invention consists in certain novel features of construction as hereinafter described and specifically pointed out in the claims.

In the drawings employed for illustrating the preferred embodiment of the invention:—Figure 1 is a side elevation of the edge turning device. Fig. 2 is a top or plan view thereof. Fig. 3 is an end view. Fig. 4 is an end view of the blade holder, partly in section, with a blade therein, and the edge turning roller. Fig. 5 is a fragmentary view showing a lever for depressing one end of the edge turning roller.

Referring now more particularly to the accompanying drawing, the reference character 5 indicates an elongated base, preferably of metal, which has two oppositely disposed standards 6 mounted thereon, said standards comprising reduced portions 7 which extend along the edge of the base for a considerable distance, in order to form guides for the blade holding carriage 8, disposed to rest and slide upon the base between said members.

The carriage 8 is provided with a blade holder consisting of a fixed member 9, which may be formed integral with the carriage or suitably mounted thereon, and a vertically adjustable member 10, substantially L-shaped in cross section, as shown in Fig. 4. The ends of the adjustable member 10, are held in position with relation to the fixed member by lateral extensions on the latter

forming guides 11, into which the ends of the adjustable member fit so as to permit vertical adjustment of said member. The adjustment is accomplished by means of threaded bolts 12, which engage threaded apertures in the lugs 13, 14, on the adjustable member, the neck of the lug 13 extending through a slot in the fixed member 9 (not shown), and the lower ends of the bolts resting upon the carriage. The L-shaped formation of the adjustable member in cross-section, and the end of its horizontal arm resting against the fixed member, forms a pocket for the reception of the blade to be operated upon, and the adjustability of this member permits blades of varying sizes to be properly held thereby. The blade holder is disposed at an angle with relation to the side edges of the carriage and with the direction of travel thereof, for a purpose presently explained.

The carriage 8 is formed with a rack 15 on its upper side and along one edge thereof, a gear 16, suitably journaled upon a stud shaft 17, meshing with said rack. A pinion 18 mounted upon a shaft 19, journaled in the uprights 6, in turn meshes with the gear 16, and upon turning the crank handle 20 upon the end of shaft 19, the carriage 8 may be propelled in either direction.

Mounted upon the shaft 19, is a concaved edge turning roller 22, which, upon operation of the crank handle, is rotated in a direction opposite to the travel of the carriage, and a blade edge disposed in the holder on the carriage so that its edge will contact with the roller, is opposed in its movement by the opposite movement of the roller, and as the blade is disposed at an angle to the roller, the edge thereof is caused to yield and is turned to one side, as plainly shown in Fig. 4. The shaft 19 is loosely journaled at one end, by passing the same through a vertical slot 23, in the standard, so that by applying pressure to the end of the lever 24, fulcrumed at 25, and which rests upon the shaft, the operator may vary the size of the turn to be made upon the blade edge.

In order to obtain the highest degree of efficiency in blades employed for scraping purposes, experience has demonstrated that the blade should be turned at its edge at a particular angle, and that the edge should have a longitudinal convex formation as well. In order that a uniform turn or bend



may be made on a blade having such a formation, I use the concave edge turning roller, which compensates for the curvature of the convex blade edge as the latter travels at an angle thereto, thereby bringing the lowest points of the blade edge at either end into contact with the larger ends of the roller, and the center or highest point of the blade edge into contact with the center or smaller diameter of the roller.

In practice a scraper blade is positioned in the holder on the carriage so that its upper edge will, upon movement of the carriage, contact with the edge turning roller, the height of the blade depending upon the degree of the turn desired. The crank handle is next operated, which causes the carriage to travel and bring the blade edge into contact with the roller at an angle thereto. As the roller rotates in an opposite direction to the travel of the blade, the latter's movement is opposed and the edge caused to yield and turn to one side. The degree of the turn to be given the edge may be varied somewhat by manipulation of the lever to depress the roller shaft, as heretofore explained.

What is claimed is:—

1. In an edge turning device for blades, the combination of means for feeding the blade longitudinally and diagonally, of means for contacting with the blade edge to resist its movement and cause the edge to yield and turn.

2. In an edge turning device for blades, the combination of a traveling member embodying means for holding a blade diagonally thereon, of a rotary member for contacting with the blade edge, and means for feeding the traveling blade holder and operating the rotary member in opposite directions.

3. In an edge turning device for blades, the combination of a traveling member em-

bodying means for holding a blade diagonally thereon, of an edge turning member mounted on a shaft, power transmitting means connecting the shaft and blade holder, and means for operating the shaft.

4. In an edge turning device for blades, the combination of a traveling member, a rotary concaved edge turning member, a blade holder diagonally mounted on the traveling member to present the blade edge for contact with the edge turning member at an angle thereto, and means for operating the traveling member.

5. In an edge turning device for blades, the combination of a traveling blade holder disposed at an angle to its direction of movement, of an edge turning roller having a concaved periphery, and means for operating the blade holder and roller.

6. In an edge turning device for blades, the combination of a traveling member, of a blade holder diagonally mounted thereon, having laterally extending ears, adjusting screws engaging screw threaded apertures in said ears, an edge turning member for contacting with the blade edge, and means for operating the traveling member.

7. In an edge turning device for blades, the combination of a base, of a blade holder arranged to slide thereon and having a rack along one edge, oppositely disposed uprights on the base, a gear mounted upon a shaft supported by one of said uprights and meshing with said rack, a shaft journaled in the uprights, a pinion mounted on said shaft and meshing with said gear, an edge turning roller mounted on the shaft, and means for rotating the shaft.

In testimony whereof I affix my signature, in presence of two witnesses.

ALANDO L. BLODGETT.

Witnesses:

GRACE M. COLE,

LULU D. WAHLEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."