

No. 756,502.

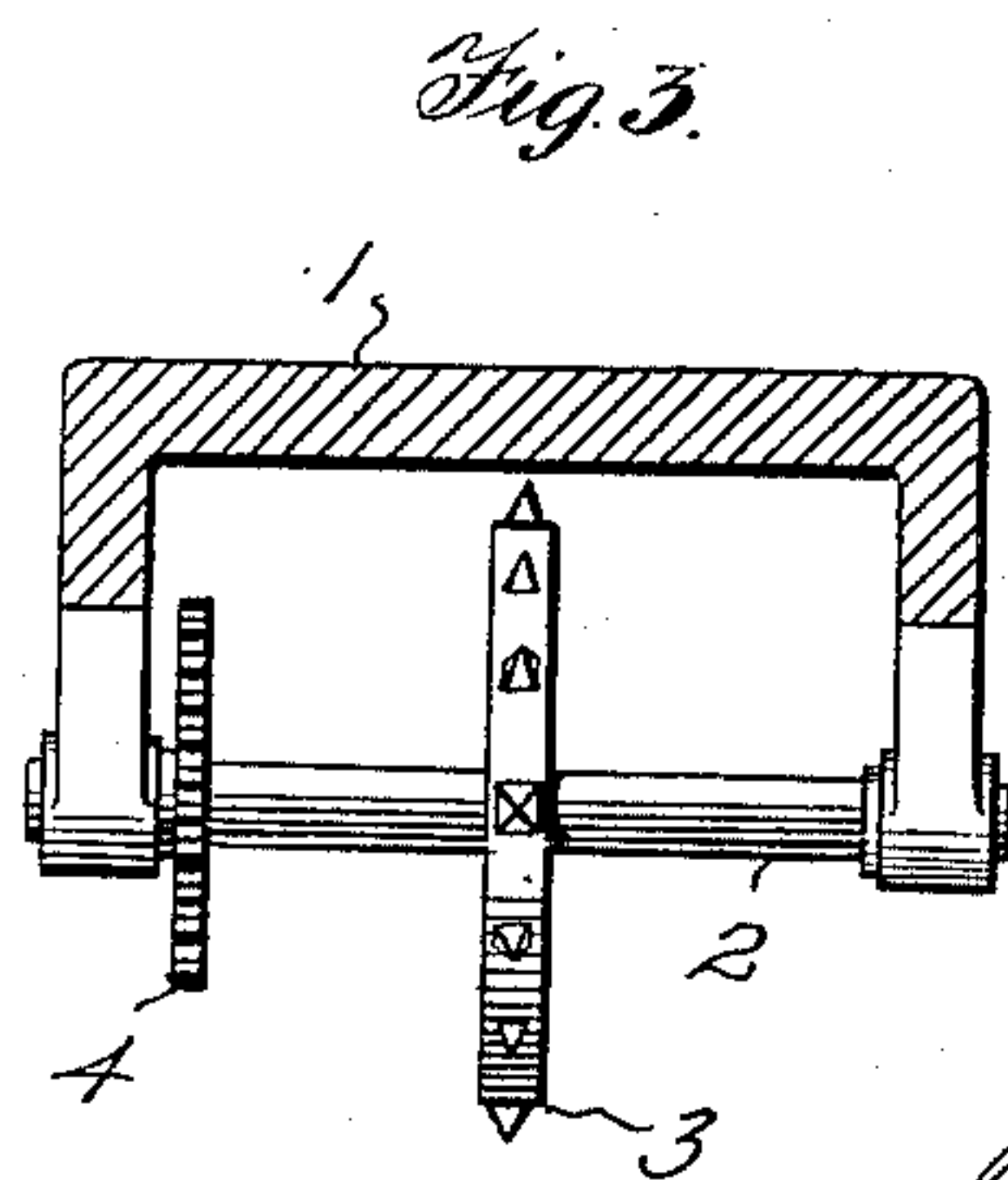
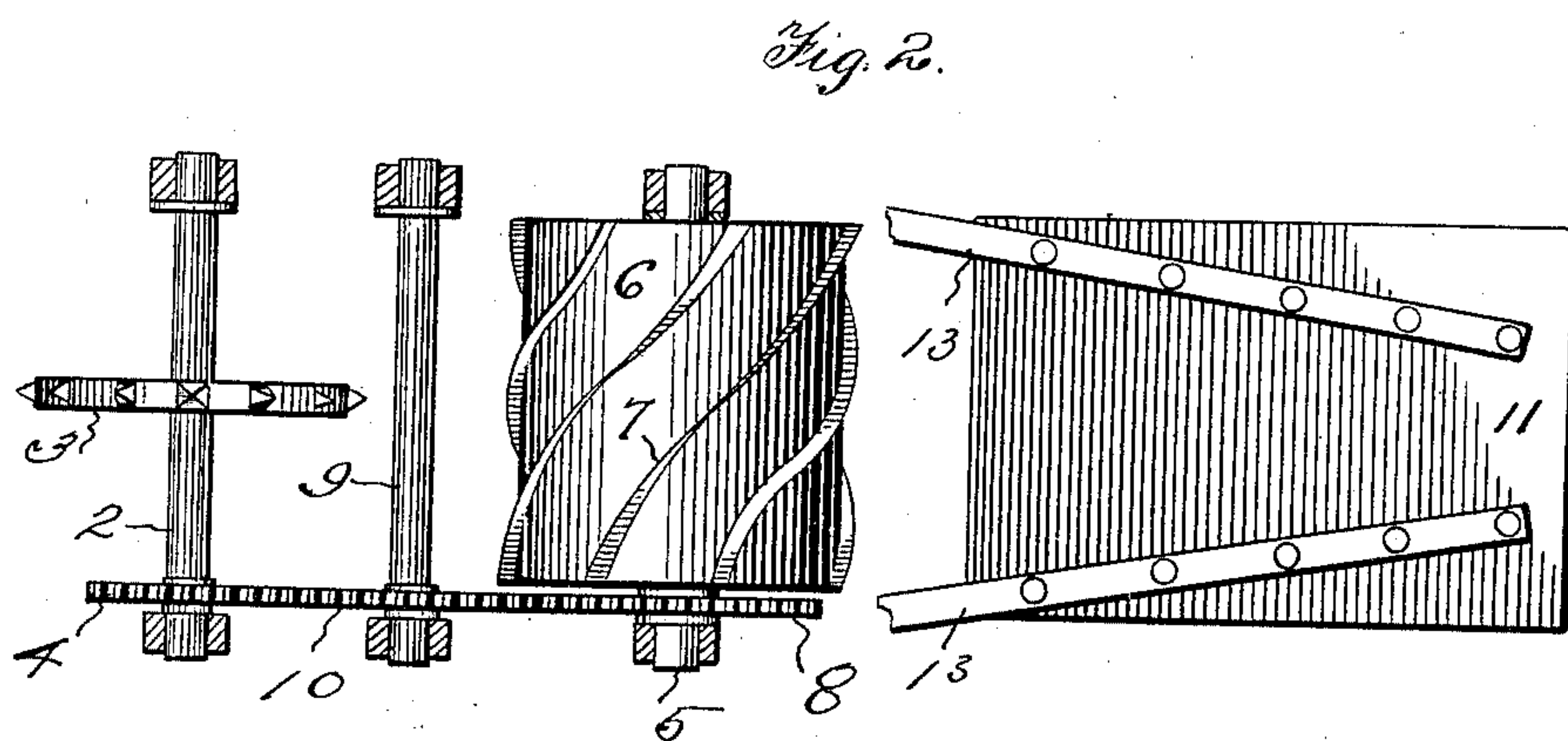
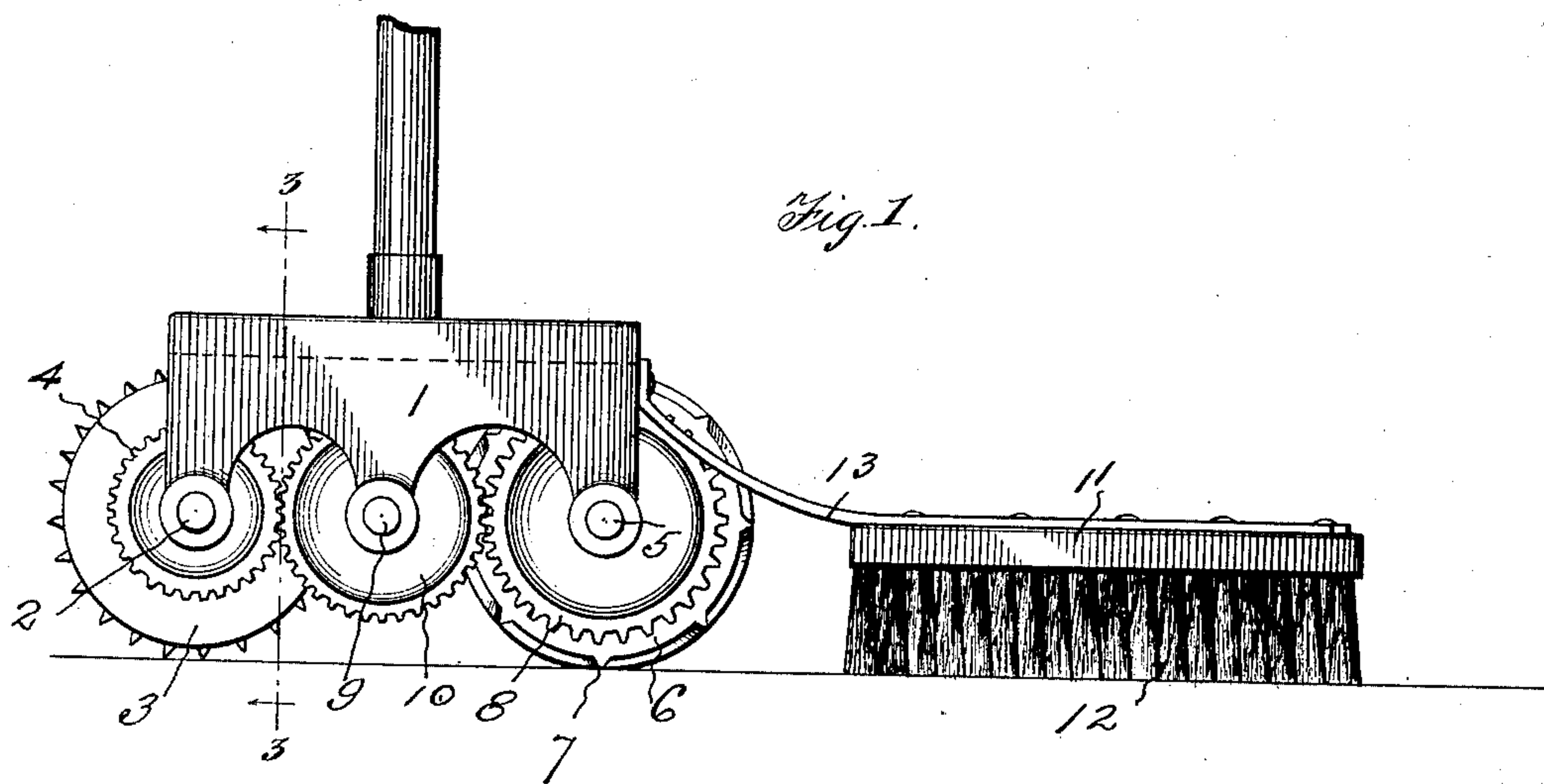
PATENTED APR. 5, 1904.

B. J. JEWETT.

MECHANISM FOR REMOVING ICE FROM ELECTRIC CONDUCTORS.

APPLICATION FILED OCT. 29, 1903.

NO MODEL.



Witnesses:

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UNITED STATES PATENT OFFICE.

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MECHANISM FOR REMOVING ICE FROM ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 756,502, dated April 5, 1904.

Application filed October 29, 1903. Serial No. 178,987. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN J. JEWETT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Mechanism for Removing Ice from Electric Conductors, of which the following is a specification.

This invention relates to a device which is designed to be attached to the truck of an electric-motor car which receives its power from a third-rail conductor for the purpose of breaking up and removing ice and sleet from the conducting-rail, so that the shoe will make good contact with the rail.

The object of this invention is to provide a very simple and efficient device for breaking up accumulated ice and sleet and sweeping the broken particles off from the conducting-rail.

The device that is illustrated as embodying the invention has a frame with bearings which support a toothed driving-wheel, a rotary cutter, gears for operating the cutter from the driving-wheel, and a brush connected with the frame by springs.

Figure 1 of the views shows a side elevation of the device. Fig. 2 shows a plan with portions of the frame broken away, and Fig. 3 shows a vertical section looking toward the front on the plane indicated by the line 3 3 of Fig. 1.

The frame 1 is adapted to be connected with a truck of an electric-motor car in any suitable way, so that it may be raised from and lowered toward the conducting-rail, as desired. This frame, which is yoke-shaped, has three bearings on each side. Held by the front bearings is a shaft 2 with a spiked driving-wheel 3, that is adapted to run over the middle of the conducting-rail, and a gear 4 at one side. Held by the rear bearings is a shaft 5 with a cylinder 6, that has spiral cutting-blades 7, that are located so as to run directly over the conducting-rail, and a gear 8 at one side. Held by the middle bearings is a shaft 9 with a gear 10, that meshes with the gear on the spiked driving-wheel shaft and also with the gear on the cutter-cylinder shaft.

The back 11 of the brush, which is provided

with any suitable kind of sweeping-bristles 12, is connected by spring-arms 13 with the frame. These spring-arms are so formed that when the frame is dropped down the bristles of the brush will bear on the rail with considerable pressure.

When not in use, the frame and the brush are drawn up above the rail out of the way. To remove ice or sleet from a conducting-rail, the frame is lowered until the spiked driving-wheel and the cutter-blades are in contact with the rail. Then as the car moves forwardly the spikes penetrate the ice and tend to break it up and at the same time to rotate the cutter, so that its blades will cut up the ice which is upon the rail. The particles which are chopped up by the cutter-blades are swept from the rail by the bristles of the trailing brush.

The gears which connect the spiked driving-wheel with the spiral cutter-cylinder are preferably of such relative size that the cutter has a slower surface-speed than the driving-wheel.

The invention claimed is—

1. A rail-cleaner consisting of a frame supporting a rotatory cutter, a driving-wheel, driving mechanism connecting the driving-wheel with the cutter whereby rotation of the former rotates the latter, and a brush attached to the frame and trailing behind the cutter, substantially as specified.

2. A rail-cleaner consisting of a frame supporting a rotatory cutter with spirally-arranged blades, a spiked driving-wheel in front of the cutter, gears connecting the driving-wheel shaft with the cutter-shaft, and a brush attached to the frame and trailing behind the cutter, substantially as specified.

3. A rail-cleaner consisting of a frame supporting a rotatory cutter, a driving-wheel in front of the cutter, gears connecting the driving-wheel shaft with the cutter-shaft, a brush back of the cutter and springs connecting the brush with the frame, substantially as specified.

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Witnesses:

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