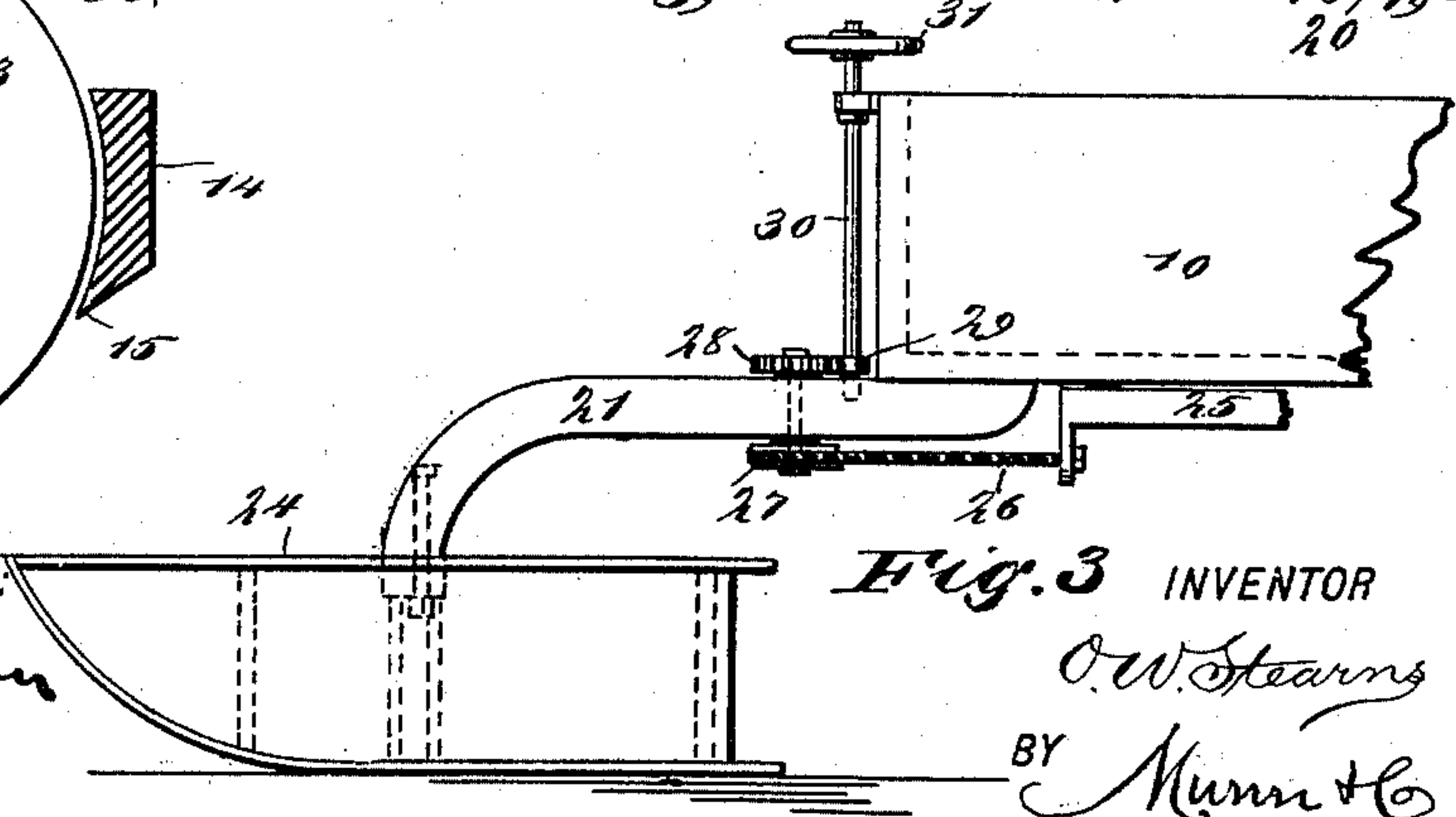
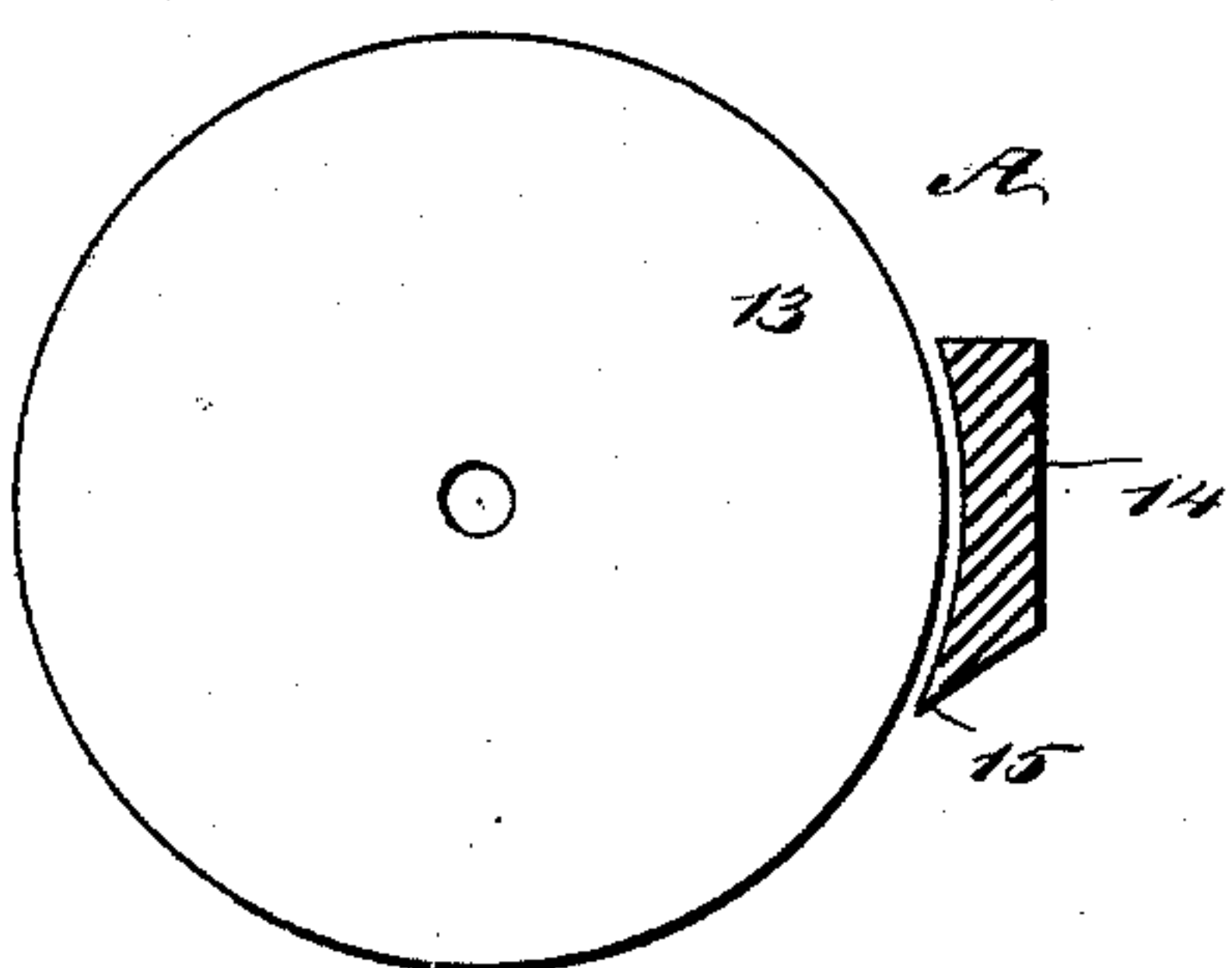
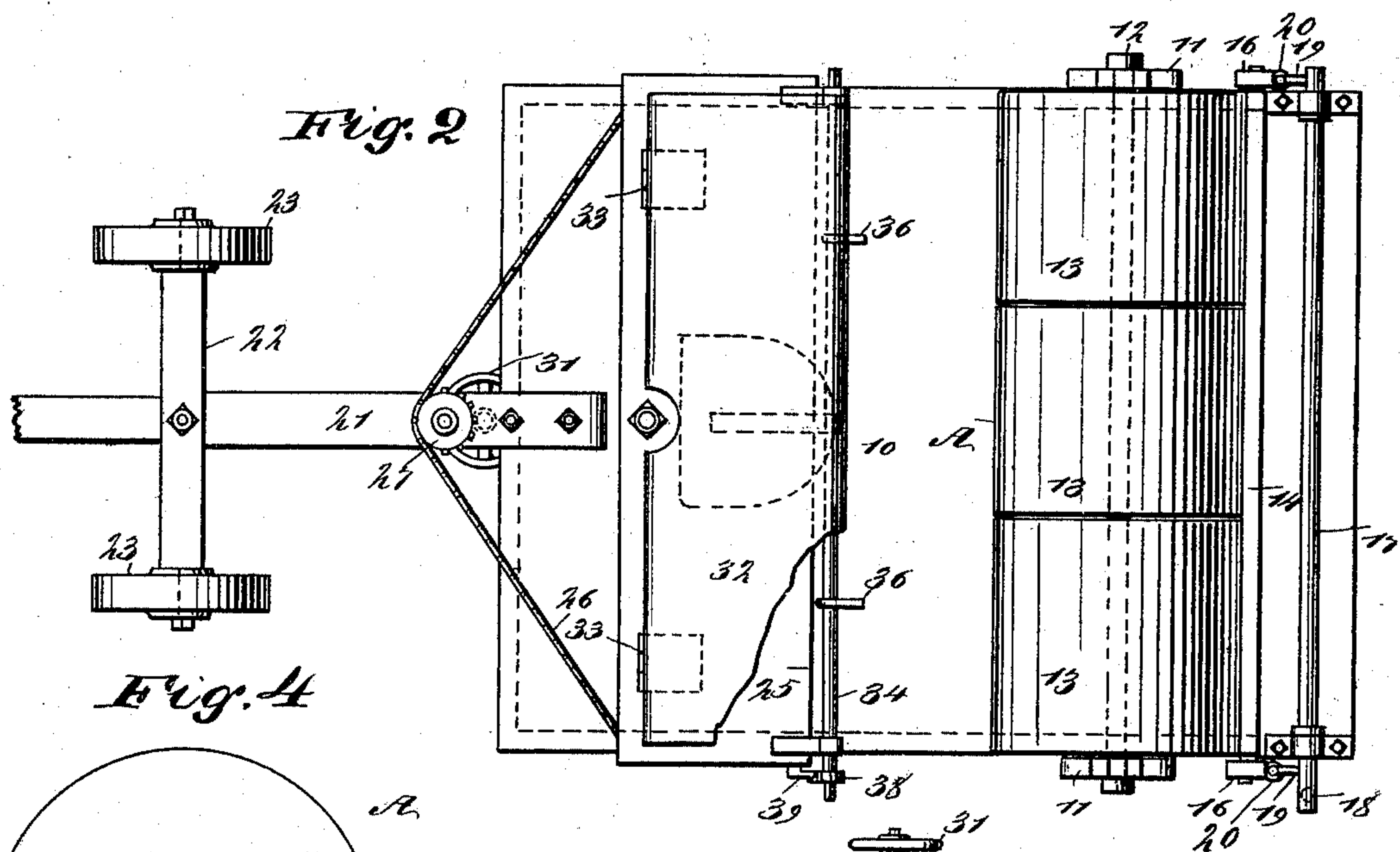
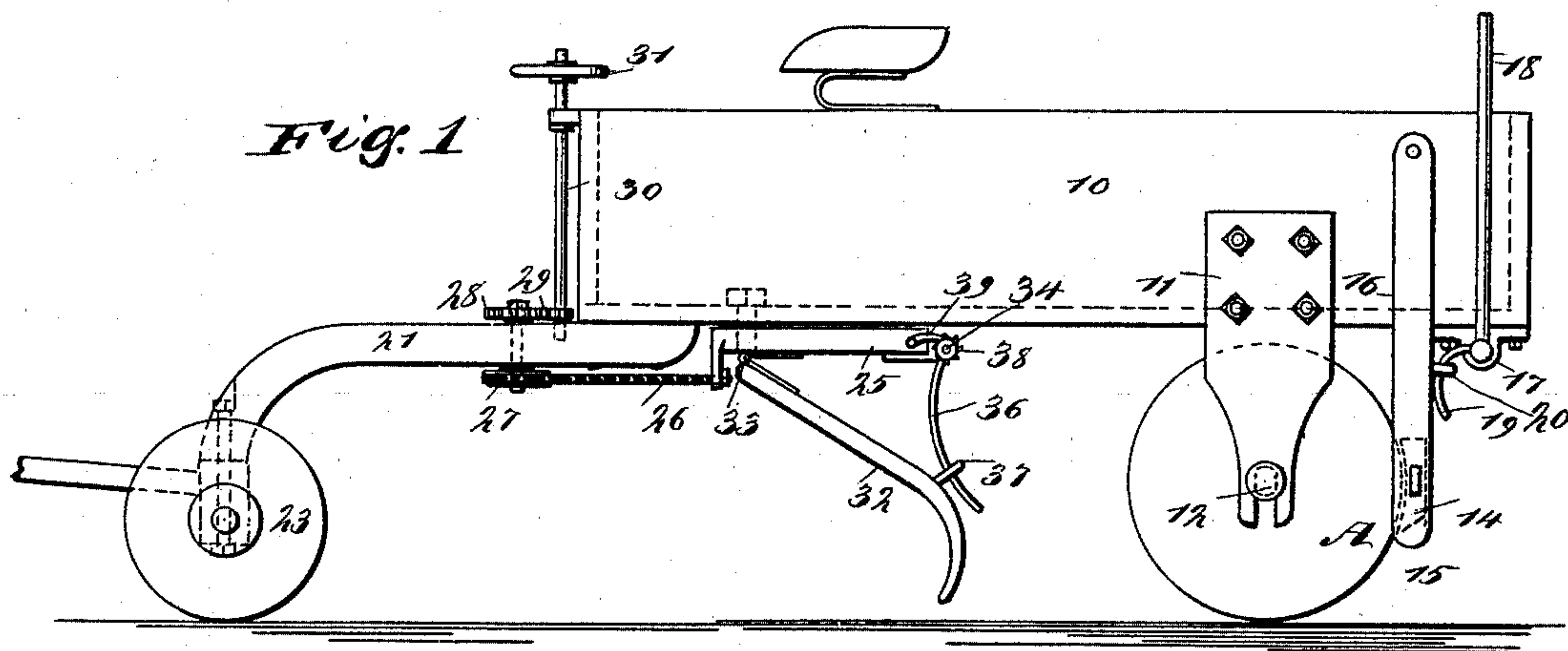


(No Model.)

O. W. STEARNS.
ROAD WORKER AND SCRAPER.

No. 518,473.

Patented Apr. 17, 1894.



WITNESSES:
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UNITED STATES PATENT OFFICE.

OTIS W. STEARNS, OF JOHNSON, VERMONT.

ROAD WORKER AND SCRAPER.

SPECIFICATION forming part of Letters Patent No. 518,473, dated April 17, 1894.

Application filed June 22, 1893. Serial No. 478,495. (No model.)

To all whom it may concern:

Be it known that I, OTIS W. STEARNS, of Johnson, in the county of Lamoille and State of Vermont, have invented a new and Improved Road Worker and Scraper, of which the following is a full, clear, and exact description.

My invention relates to an improvement in road workers, and it has for its object to provide a machine capable of scraping and rolling the road, which machine may be operated either in winter or in summer, and further to so construct the machine that it will be simple, durable and economic, and whereby also the scraper may be raised and lowered in a convenient and expeditious manner, and likewise shifted to stand at any desired angle laterally beneath the body of the machine.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the road cleaner. Fig. 2 is a bottom plan view thereof. Fig. 3 is a partial side elevation illustrating the manner of mounting the body of the machine in the winter; and Fig. 4 is a view illustrating one section of the roller in end view, and illustrating in transverse section the scraper for the entire roller.

In carrying out the invention the body 10 of the machine is preferably a box body, and is adapted to be weighted with stones, or any other object and to any desired degree. Pedestals or hangers 11, are secured to the body at opposite sides, and extend downward therefrom near the rear end thereof; and in the lower ends of the pedestals or hangers a shaft 12, is journaled in any suitable or approved manner. This shaft has loosely mounted upon it a roller A, and the roller serves as a support for the rear portion of the body. The roller may be of any suitable or approved material, and may be solid or hollow, as occasion may demand. Furthermore, the roller may be continuous from side to side of the body, or from one hanger to the other, or, as illus-

trated in the drawings, the roller may consist of a series of sections 13, in which event each section is independently and loosely mounted upon the axle. A scraper bar 14, is located at the rear of the roller extending from end to end thereof, the forward face of the scraper bar being concaved in order that it may fit quite closely to the roller and be used as a brake; while the lower edge 15 of the scraper is made quite sharp, as shown best in Fig. 4, to facilitate the removal of any material that may cling to the roller.

The scraper bar 14 is attached at its ends to arms 16, which are pivotally attached to the sides of the body at the rear of the pedestals 11, and the scraper bar is carried to or from the roller through the medium of a rock shaft 17, journaled beneath the body at the rear thereof, and provided with a handle 18, as shown in Fig. 1. The rock shaft is further provided at or near each end with a curved finger 19, the convexed faces of the fingers being their forward faces; and the said curved fingers are passed through eyes 20, or the equivalents thereof, secured upon the pivoted arms 16. Thus by moving the lever 18 forwardly or rearwardly the scraper bar may be carried away from the roller or be brought in more or less close contact therewith.

The forward end of the body is supported by a beam 21, which is firmly secured to the central bottom portion of the body and extends beyond its forward end, the forward extremity of the beam being downwardly curved; and an axle 22, is pivotally attached to the lower end of the beam 21, the axle being provided with suitable supporting wheels 23. In winter the forward wheels and the axle may be removed, and a sled 24 may be substituted, as shown in Fig. 3.

With reference to the scraper, a platform 25, is pivoted preferably near the center of its forward edge to the central forward portion of the body. This platform may be turned upon its pivot so as to extend transversely beneath the beam, or more or less diagonally as occasion may demand, through the medium of a chain 26, which is secured to the forward end portions of the platform, and is passed around the sprocket wheel 27, attached to a shaft journaled in the beam 21, the upper end of the said shaft being provided with a gear

28, meshing with a pinion 29, located upon a shaft 30, journaled in an upright position at the front of the body. The said shaft 30, which may be termed an adjusting shaft, is provided at its upper end with a hand wheel 31, or its equivalent.

The scraper 32, is forwardly curved at its lower extremity; otherwise the scraper is preferably made straight, and said scraper may be of any desired material. The upper end of the scraper is hinged to the forward portion of the platform 25, as shown at 33 in the drawings, and the scraper must therefore follow the movement of the platform. The scraper is raised and lowered by journaling a shaft 34 at the rear end of the platform 25, and securing upon said shaft arms 36, which are curved forwardly and then downwardly and rearwardly, whereby the convexed face of the arms is in direction of the front of the machine. The arms are passed through eyes 37, or their equivalent, secured upon the back of the scraper near the point where its curve commences. The shaft may be turned by means of an applied crank arm, or any appropriate tool; or a lever may be connected with it; and it is evident that by rocking the shaft, the scraper will be carried either in direction of the ground or upward therefrom. In order that the scraper may be made to remain in the position in which it has been vertically adjusted, a ratchet wheel 38, is located upon one end of the shaft 34, engaged by a pawl 39, carried by the platform. It will be understood that a pawl may likewise be used in connection with the pinion 29 on the forward adjusting shaft 30.

When the machine is constructed in the manner set forth, the road may be scraped and rolled at the same time by the use of the machine; and furthermore, the scraper may be adjusted beneath the body of the machine in such manner as to carry the material removed from the road in direction of the front of the machine, or more or less in direction of either of its sides.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. In a road worker, the combination, with a body, adapted to receive a weight, and means, substantially as shown and described for supporting the body above the surface of the ground, a platform pivotally connected with the bottom of the body, an adjusting shaft, and a connection between the adjusting shaft and the ends of the platform, whereby the latter may be laterally moved upon its pivot, of a scraper having hinged connection with the platform, and an adjusting shaft carried by the platform and connected with the scraper, whereby the latter may be raised and lowered, as and for the purpose set forth.

2. In a road worker, the combination, with a body, a roller journaled beneath the body and adapted to travel over the surface of the ground, a platform pivoted to the body in advance of the roller, an adjusting shaft, and a connection between the ends of the platform and the said shaft, of a scraper having a hinged connection with the platform, an adjusting device carried by the platform and connected with the scraper, whereby it is raised and lowered, and a scraper bar engaging with the roller, said bar being capable of use as a brake, as and for the purpose specified.

3. In a road worker, the combination, with a body, a roller journaled beneath the body, a platform pivotally connected with the body in advance of the roller, an adjusting shaft, gearing connected with the adjusting shaft, and a belt connection between the gearing and the ends of the platform, of a scraper pivotally connected with the platform, an adjusting shaft journaled upon the platform, and curved arms projecting downward from the shaft and passed through keepers connected with the scraper, as and for the purpose set forth.

OTIS W. STEARNS.

Witnesses:

L. E. CLARK,
C. C. STEARNS.