P. MILLER.

ROAD SCRAPER.

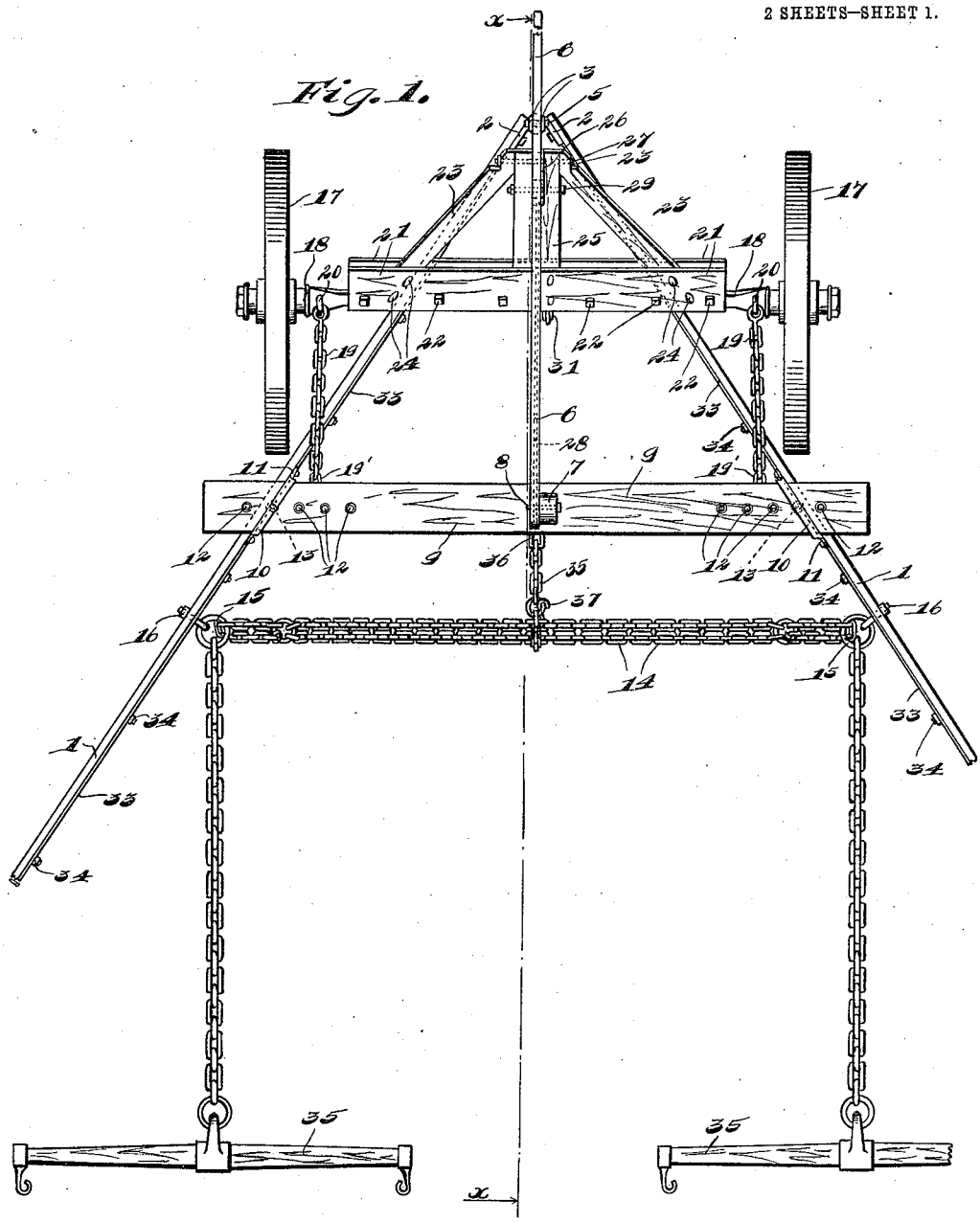
APPLICATION FILED OCT. 28, 1911.

1,052,502.

Patented Feb. 11, 1913.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

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Lucher Johns

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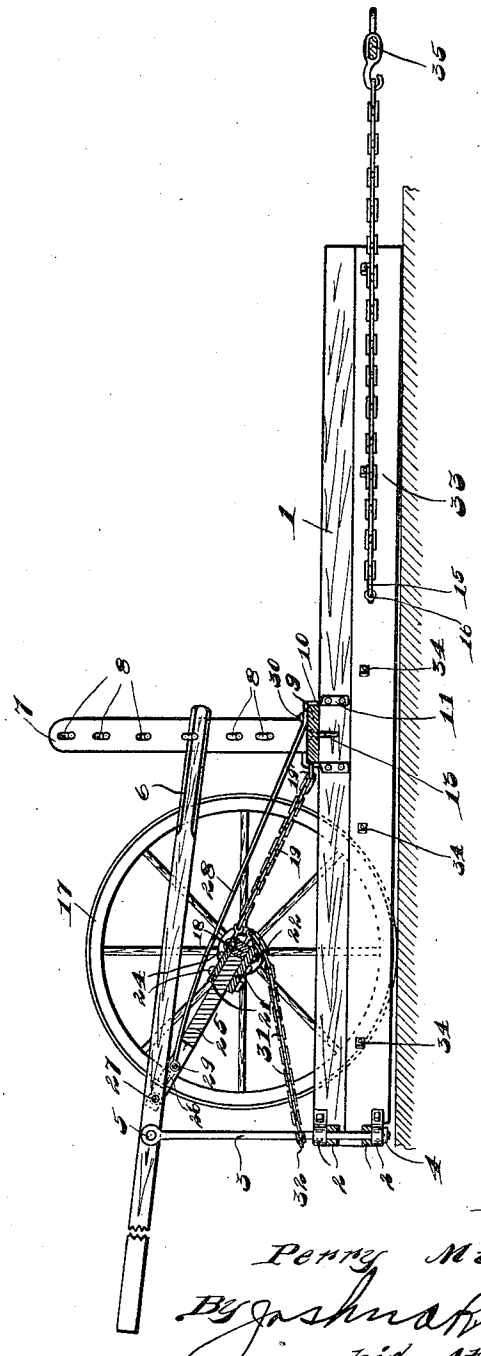

Fig. 2.

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UNITED STATES PATENT OFFICE.

PERRY MILLER, OF YORKTOWN, INDIANA.

ROAD-SCRAPER.

1,052,502. Specification of Letters Patent. Patented Feb. 11, 1913.

Application filed October 28, 1911. Serial No. 657,329.

To all whom it may concern:

Be it known that I, PERRY MILLER, a citizen of the United States, and a resident of the city of Yorktown, county of Delaware, and State of Indiana, have invented certain new and useful Improvements in Road-Scrapers, of which the following is a specification.

My invention relates to road scrapers and has particular reference to scrapers adapted to operate upon both sides of the road at the same time.

The object of my invention is to provide a simple, durable and effective road scraper which shall be composed of comparatively few parts, easily replaced and repaired, which shall not require special skill for the operation thereof, which will be easily adjustable to meet the varying conditions of road beds being constructed or improved and which will scrape, level and grade both sides of the road with one passage of the device thereover.

Further objects of my invention will appear hereinafter.

My invention consists in the several constructions, the various improvements and the combinations of parts hereinafter set forth and particularly pointed out in the appended claims, and will be readily understood by reference to the accompanying drawings forming a part of this specification, in which I have illustrated a structure which, in a preferred manner, embodies the several features of my invention.

In these drawings, Figure 1 is a top plan view of a road scraper embodying my invention, and Fig. 2 is a longitudinal vertical section taken on line *x*—*x* of Fig. 1.

In these drawings, 1 indicates two edgewise standing boards or planks converging rearwardly and movably attached to each other by means of two hinges 2, bolted to the side members 1 and turning on a common hinge pin 3 which is prevented from being withdrawn by a nut 4. The hinge pin 3 is preferably of wrought iron, and is provided at its upper end with an integrally turned ring through which, by means of a bolt 5, the hinge pin is pivotally mounted upon the lever 6, preferably made of wood. This lever 6 is adapted to move up and down on one side of an upstanding bar 7 and to engage the under side of headed pins 8 spaced at intervals on said bars 7 and rigidly secured therein. The upright bar 7 is rigidly secured centrally on the spacing cross bar 9, preferably of wood, which rests upon the side members 1 and is slidably held thereon by two U-shaped iron bands passing over same near the ends thereof and rigidly fastened to the side members 1 by nails or bolts 11. The cross bar 9 is provided with vertical holes 12 adapted to receive stud pins 13 and by means thereof to limit the movement of the side members 1 toward each other. The side members 1 are prevented from moving away from each other by an adjustable chain 14 secured in rings 15 in eyebolts 16 in the side members 1. It will be seen that by this arrangement of the pins 13 and the chain 14 the side members 1 may readily be separated or drawn together as the width of the road may require. The eyebolts 16 also receive the power for drawing the scraper, which power is ordinarily that of a team of horses, although any suitable tractive power may be used.

My improved scraper is mounted upon two wheels 18 adapted to permit the scraper to be moved from place to place without scraping and to support and equalize the weight brought upon the scraping members during the process of scraping and also to provide a suitable fulcrum or ultimate support for the lever 6. The wheels are mounted upon an axle 18 in the usual manner. Tractive and stay chains 19 are secured to either end of the axle by means of rings 20 therein and are fastened to the rear edge of the cross bar 9 with stout staples 19′. Two oppositely disposed planks or boards, 21 are rigidly secured to the axle 18 by means of through-bolts 22.

23 indicates converging braces rigidly secured at their divergent ends between the boards 21 with rivets or bolts 24. 25 is another bracing member similarly secured between the boards 21. The brace 25 is provided at its upper end with a central slot 26 slightly wider than the horizontal thickness of the lever 6 pivoted therein. The bolt 27 passes through the braces 23 and 25 and pivots the lever 6 in the bifurcated portion of the brace 25. A stay rod 28 is secured within the slot of the brace 25 by means of the bolt 29 and fastened centrally of the cross bar 9 by a bolt 30. An additional stay chain 31 attached to a ring midway between the two ends of the axle and secured to the hinge pin 3 and prevented from moving thereon by a cross pin 32, pre-

vents the scraping members and attached parts from moving rearwardly with respect to the wheels and axle.

The inner sides of the said members 1 are provided with iron or steel scraping plates 33 rigidly secured thereto by means of bolts 34, spaced at suitable intervals.

A chain 35 is fastened by a staple 36 to the cross bar 9 and is adapted to pass around the middle of the chain 14 and be held there by the hook 37, and thus equalize the pull upon the cross bar 9 which transmits the power to the axle through the chains 19, and the stay rod 28.

In the use of my improved scraper the driver may sit or rest against the upper of the two boards 21, his feet resting upon cross bar 9. In this position he is well able to control the lever 6. When the forward end of the lever 6 is lowered, the rear end thereof is elevated, and vice versa, through the fulcruming action of the bolt 27, and the converged ends of the side members 1 are similarly lowered and elevated thereby through the pin 3.

The principal object in scraping a road is to draw the washed and worn material from the side thereof and distribute it upwardly toward the middle of the road, filling the hoof and wagon tracks. This is well accomplished by my improved device through the raising and lowering of the rear ends of the side members 1, allowing the earth which has been scraped largely from the sides of the road to escape in any desired amount on the path of its travel toward the middle of the road on the inside of the side members 1. By pressing upon the rearwardly extending end of the lever 6 the front ends of the scraping members may be raised and prevented from cutting into the earth.

While I have illustrated and described the preferred construction for carrying my invention into effect, this is capable of variation or modification without departing from the spirit of the invention. I therefore do not wish to be limited to the exact details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. A road scraper, comprising a pair of rearwardly converging members pivoted together at their rear ends; a cross bar adjustably connected with the forward portions of said converging members, coöperating therewith to prevent any inward movement thereof; rings secured in the forward portion of said converging members and a flexible member interposed between said rings to prevent any outward movement of the convergent members aforesaid.

2. In a road scraper, the combination with an axle and coöperating wheels; spaced parallel bars secured to said axle; convergent braces carried by said bars; a lever fulcrumed to said braces; a pair of divergent scraping members disposed under said axle; a vertical pin hinging the convergent terminals of said scraping members together and pivoted at its upper terminal to the lever aforesaid; a cross bar disposed above said scraping members; means carried by said cross bar whereby the correlative angle of said scraping members may be adjusted; a vertical bar carried centrally by said cross bar; and an adjustable connection between the terminal of said lever and said vertical bar.

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

PERRY MILLER.

Witnesses:
JOHN S. HUFFER,
R. H. CURTIS.