No. 879,970. PATENTED FEB. 25, 1908.

J. V. KRUSE.

ROAD GRADER.

APPLICATION FILED FEB. 16, 1907.

Fig. 1.

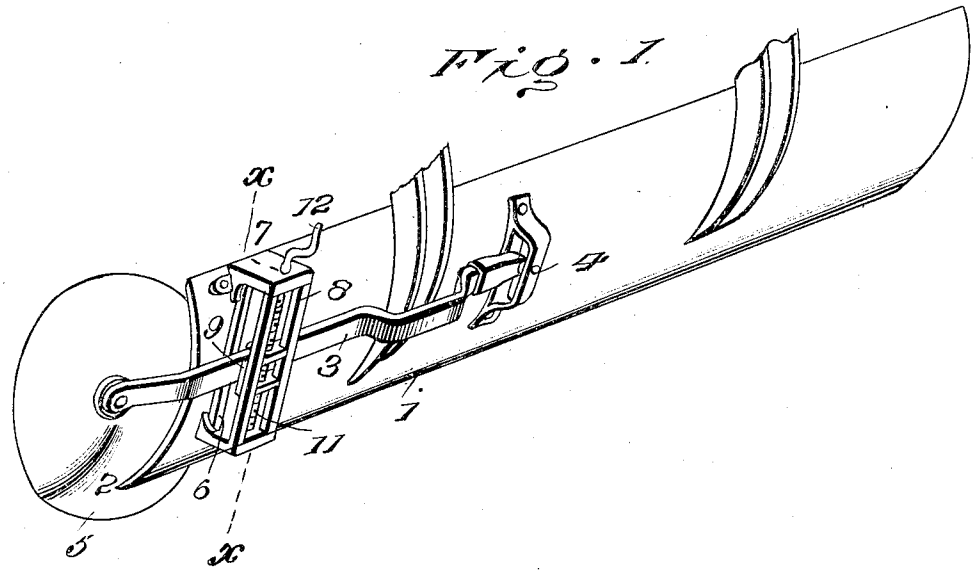


Fig. 2.

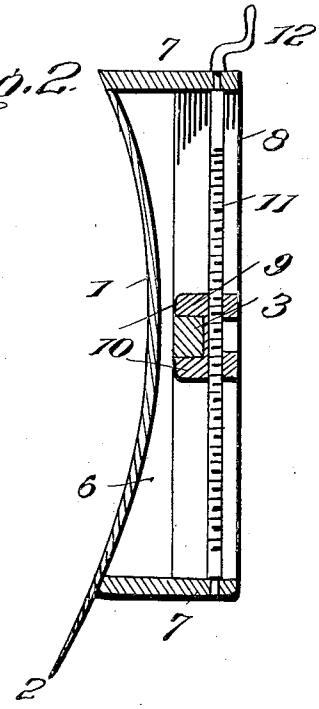
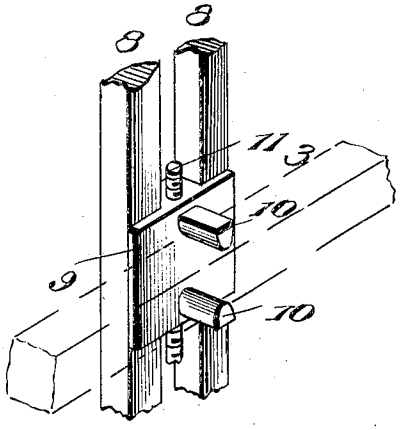


Fig. 3.



Witnesses
W. N. Woodson
A. T. Measer.

Inventor
J. V. Kruse
By R. A. R. Lacy,
Attorneys

UNITED STATES PATENT OFFICE.

JOHN V. KRUSE, OF VIRGINIA, ILLINOIS.

ROAD-GRADER.

No. 879,970. Specification of Letters Patent. Patented Feb. 25, 1908.

Application filed February 16, 1907. Serial No. 357,622.

To all whom it may concern:

Be it known that I, JOHN V. KRUSE, citizen of the United States, residing at Virginia, in the county of Cass and State of Illinois, have invented certain new and useful Improvements in Road-Graders, of which the following is a specification.

This invention provides a novel attachment for the scraper of machines employed for leveling or grading roads, the purpose being to reduce the cost of grading and to materially lessen the draft usually required for operating road machines of the type aforesaid.

The invention is in the nature of a disk and is adapted to be applied to the scraper of wheel graders to admit of a ditch being readily formed along one side of the road, and to facilitate operation on sod and tightly compacted earth.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of the scraper showing the application of the invention thereto. Fig. 2 is a vertical sectional view about on the line x—x of Fig. 1 showing the parts on a larger scale. Fig. 3 is a detail perspective view of the slide and a portion of the guides coöperating therewith illustrating the disk beam in dotted lines.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The scraper blade 1 may be of any formation being preferably made concave on its front side and is suspended from the body of a wheel scraper by any suitable means such as the hangers shown. The disk beam 3 is pivoted at 4 to the scraper 1 and is provided at its opposite end with the disk 5. A plate 6 is secured to the rear side of the scraper near one end and reinforces the same. Irons or buckets 7 are riveted to or otherwise fastened to the rear side of the scraper 1 at opposite ends of the plate 6 and are connected at their rear corners by means of bars 8. A slide 9 operates vertically between the bars 8 and is provided upon its outer face with a pair of pins 10 which embrace the disk beam 3 whereby the disk can be raised or lowered through the medium of the slide. An adjusting screw 11 is mounted in the brackets 7 and has a threaded connection with the slide 9 whereby upon turning the said screw the slide 9 is moved with reference to the scraper with the result that the disk is raised or lowered as required. For convenience in turning the said screw it is provided at its upper end with a crank handle 12.

The disk 5 is preferably arranged at an angle of about forty-five degrees (45°) to the direction of movement of the scraper and when lowered into operative position serves to form a ditch or cutter along one side of the road, the earth which is displaced thereby being deposited in front of the scraper blade whereby it is moved toward the center or crown of the road. This disk also has the advantage of enabling the grader to be readily employed upon earth which has been tightly compacted, or which has become overgrown with grass or weeds, and which would therefore offer considerable difficulty to the ordinary road grader. The depth of the gutter formed by the disk can be readily adjusted by elevating or depressing the disk through the medium of the threaded stem 11, and when desired the said disk can be raised into an inoperative position and the scraper employed in the customary manner.

Having thus described the invention, what is claimed as new is:

1. In a road grader, the combination of a scraper, a disk mounted in coöperative relation to the scraper, and means for moving the disk into and out of operative position.

2. In a road grader, the combination of a scraper, a disk beam pivoted to the scraper, and a disk carried by the said beam.

3. In a road grader, the combination of a scraper, a disk beam pivoted to the scraper, a disk mounted upon the said beam, a slide mounted upon the scraper and having an operative connection with the beam, and means for moving the slide to throw the disk into and out of operative position.

4. In a road grader, the combination of a

scraper, a disk beam pivoted to the scraper, a disk carried by the beam, a slide mounted upon the scraper and having an operative connection with the beam, and an adjusting screw engaging the slide for moving the same to throw the disk into and out of operative position.

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

JOHN V. KRUSE. [L. S.]

Witnesses:
F. M. ROBERTSON,
V. E. ROBERTSON.