

W. T. THOMPSON.
 SCRAPING DEVICE FOR ROAD MACHINERY.
 APPLICATION FILED JAN. 11, 1910.

1,065,188.

Patented June 17, 1913.

2 SHEETS-SHEET 1.

FIG. I

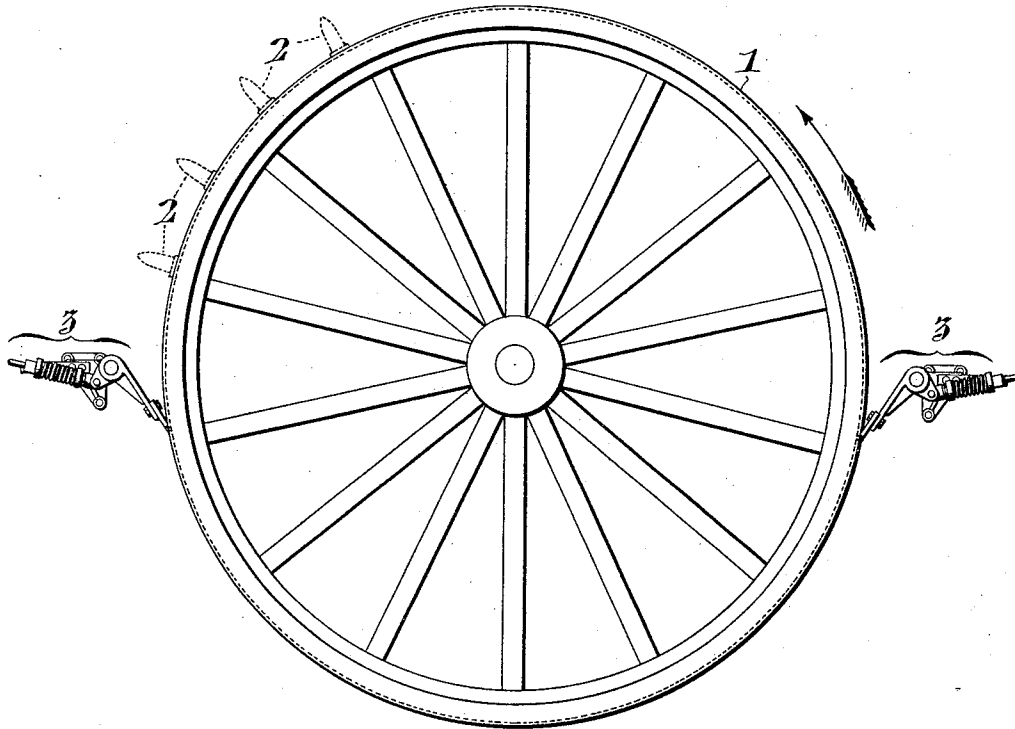
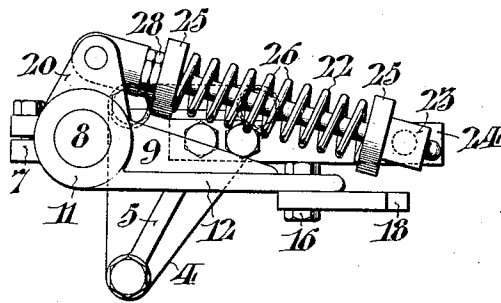


FIG. IV



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2 SHEETS—SHEET 2.

FIG. II.

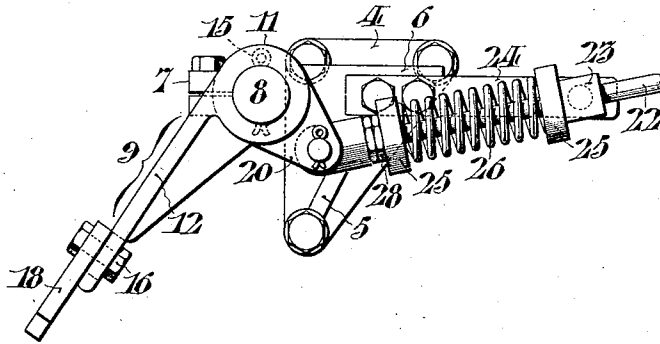
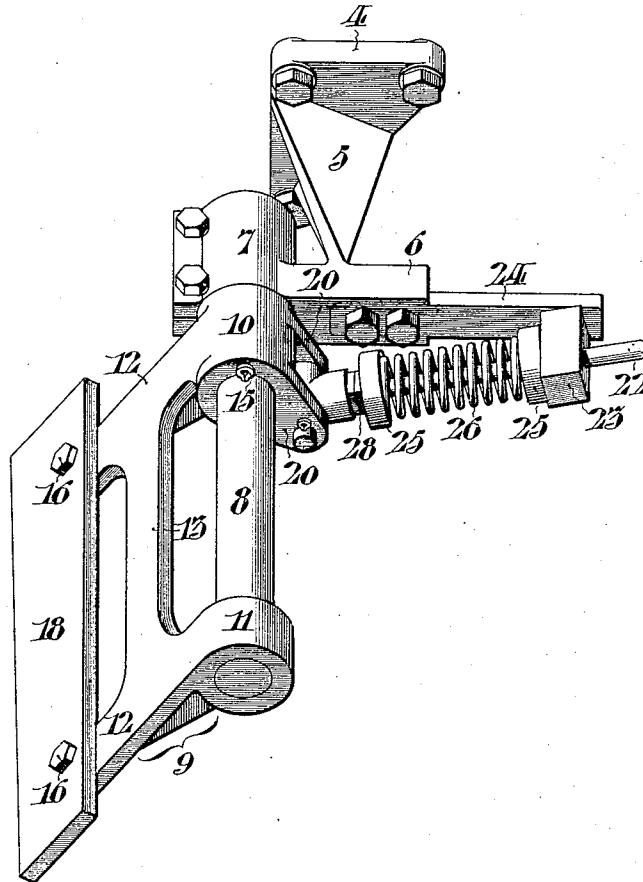


FIG. III.



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UNITED STATES PATENT OFFICE.

WATSON T. THOMPSON, OF BUFFALO, NEW YORK, ASSIGNOR TO THE BARBER ASPHALT PAVING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF WEST VIRGINIA.

SCRAPING DEVICE FOR ROAD MACHINERY.

1,065,188.

Specification of Letters Patent.

Patented June 17, 1913.

Application filed January 11, 1910. Serial No. 537,414.

To all whom it may concern:

Be it known that I, WATSON T. THOMPSON, of Buffalo, in the county of Erie and State of New York, have invented certain
5 new and useful Improvements in Scraping Devices for Road Machinery, of which the following is a specification, reference being had to the accompanying drawings.
My invention relates to a scraper capable
10 of application to the broad tired heavy wheels of steam rollers, road engines, or other road machinery. Vehicles of this character are set upon wheels provided with very broad tires, because of their great weight,
15 and also because of the rolling action thereby procurable. Owing to the weight of these vehicles the mud or clay which they pass over, is caked hardly and adheres strongly to the periphery of the tire. To
20 prevent the cumulative effect of such caking a powerful scraper must be provided which will continually clean the periphery of the wheel. As vehicles of the character referred to, travel in both directions, often moving
25 backward and forward at short intervals, paired scrapers must be provided which will clean the wheel no matter which way it revolves. It is customary in steam rollers of the character to which I am referring to
30 provide the rim of the wheel with sockets within which projecting picks or spikes may when desired, be set to be used, for example when the roller is employed to break up an old road or pavement. The scraper must
35 therefore be adapted to be withdrawn from contact with the rim, when the picks are applied to it. The parts of a scraper for a heavy device of this character, should be stout in order to permit of the application
40 of heavy pressure upon the scraper, and yet the parts should not project more than necessary from the sides of the vehicle. The scraper which I am about to describe fulfils these requirements and possesses other im-
45 portant advantages and functions which will be referred to in connection with the detailed description of this specification.

A convenient embodiment of my invention is illustrated in the accompanying drawings,
50 in which—

Figure I, represents in elevation the side wheel of a steam roller having applied to it a pair of scrapers embodying my invention. Fig. II, is an enlarged elevation of one of

these scrapers. Fig. III, illustrates the 55 scraper in perspective. Fig. IV, is a similar view of the same scraper turned so as to withdraw its scraping edge from action.

The wheel 1, represented in elevation in Fig. I, is one of the large heavy side wheels 60 of a steam roller, the rim of which may be a foot or more in width. The rim is of metal, and is supplied with sockets, within which when desired, the picks 2, 2, 2, may be secured so as to arm the wheel for the 65 purpose of breaking up an old road. When the picks are in place, the wheel cannot be scraped and the scrapers must be withdrawn from action, but when the picks are removed, the wheel is subjected to the scraping action 70 of two scrapers 3, 3, working in reverse directions, so as to clean the wheel whichever way the engine moves. These paired scrapers are similar, except for the inversion of their parts, and a description of one will 75 therefore suffice.

Referring to Figs. II, and III, the bracket 4, is adapted to be bolted to the side of the vehicle. It is strengthened by projecting webs 5, and carries a cross-standard 6, upon 80 one end of which is formed the split clamping socket 7, while the other end carries (suitably attached by bolts), the projecting arm 24. Within the split socket 7, is firmly clamped an arm 8, of cold rolled steel upon 85 which is swiveled the scraper frame 9, comprising two collars 10 and 11, with arms 12, united by the cross piece 13. The scraper frame is held in position on the axle by a split key 15. The extremities of the arms 90 of the scraper frame are slotted and through these slots pass the bolts 16, by means of which the scraper blade 18, is adjustably and removably attached to the scraper frame. This adjustment is of particular importance 95 in road machinery, the rims of the wheels of which are usually inclined to correspond to the crown of the road. (See Fig. 1.)

For the purpose of applying strong pressure to thrust the scraper plate against the 100 rim of the wheel, the innermost collar 10, of the scraper frame is provided with a pair of projecting lugs 20, forming a jaw between which is swiveled one end of a spring rod 22, the other end of which passes 105 freely through a corresponding hole in a swiveling guide block 23, pivotally attached to the arm 24. The rod 22, carries freely

two spring cups 25, with sockets facing each other, between which is interposed the coiled spring 26. The spring rod is threaded and carries a nut and jamb nut 28, by means of which the lower spring cup 25, may be adjusted in its relation to its fellow cup, so as to increase or diminish the tension of the spring.

It will be observed that in operation when the scraper is adjusted as shown in Fig. III, the expanding pressure of the spring 26, tends at all times to thrust the scraper plate strongly in parallel relation against the rim of the wheel, the pressure being exerted to greatest advantage by being interposed between the point of attachment of the arm 8, in its socket, and the line of pressure of the edge of the scraper against the wheel. This pressure may be made as strong as desired by adjustment of spring cup 25.

When it is desired to quickly remove the scraper from its active position in order for example that the picks may be used upon the rim of the wheel, it is only necessary to turn the scraper frame backward until the swiveled end of the rod 22, passes its dead center when the pressure of the spring will reverse the position of the scraper arm and thrust it into the inactive position illustrated in Fig. IV, where it remains until needed.

I claim—

1. A scraper for the wheels of heavy vehicles, comprising in combination a supporting bracket, a shaft clamped in said bracket, a scraper frame pivotally supported on said shaft, a scraper blade carried by said frame, an arm projecting laterally from said scraper frame, a rod pivotally connected to said arm, means carried by the bracket for slidably supporting said rod, a spring bearing at one end against said arm, and an abutment carried by the bracket for engaging the other end of the spring whereby said spring exerts a pressure at one end against the abutment, and at the other end against said arm said rod and said arm being so proportioned that the pivotal connection between the same may be moved to either side of a line passing through said abutment and pivotal support for the blade,

whereby said blade may be held against the wheel, or against the supporting bracket.

2. A scraper for the wheels of heavy vehicles, comprising in combination a supporting bracket, a shaft clamped in said bracket, a scraper frame pivotally supported on said shaft, a scraper blade carried by said frame, an arm projecting laterally from said scraper frame, a rod pivotally connected to said arm, a block pivotally supported by said bracket, and having an opening to receive freely said rod, and a spring encircling said rod, and exerting pressure at one end against said block, and at the other end against said arm.

3. A scraper for the wheels of heavy vehicles, comprising in combination, a supporting bracket, a shaft clamped in said bracket, a scraper frame pivotally supported on said shaft, a scraper blade carried by said frame, an arm projecting laterally from said scraper frame, a rod pivotally connected to said arm, a block pivotally supported by said bracket and having an opening to receive freely said rod, a bearing cup carried by said rod, and engaging the rod adjacent its pivotal point, a second bearing cup engaging the rod and resting against said block, a coil spring encircling said rod, and having its outer ends resting in said cups.

4. In a scraping device for the two wheels of vehicles, the combination of a horizontal arm, a scraper frame with blade tapered to said arm, a spring guide rod tapered to a projection upon said scraper frame, a swiveled guide block through which said guide rod freely passes, and an adjustable spring encircling said guide rod, and exerting pressure upon the projection of the scraper frame to thrust the scraper toward or away from the wheel according to the angular relation of the projection to the horizontal arm upon which the scraper frame is swiveled.

In testimony whereof, I have hereunto signed my name, at Philadelphia, Pennsylvania, this eighth day of January, 1910.

WATSON T. THOMPSON.

Witnesses:

JAMES H. BELL,
E. L. FULLERTON.