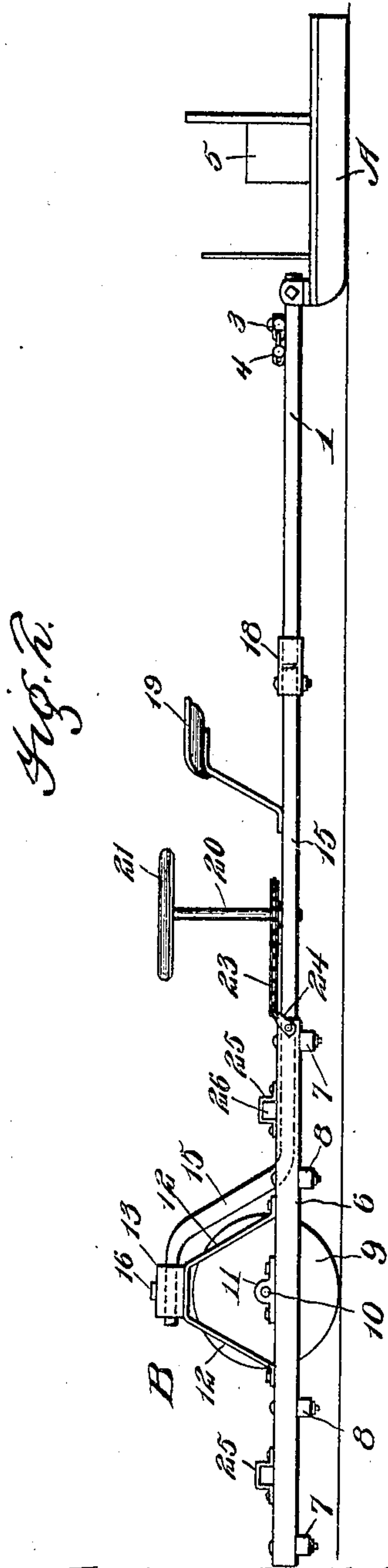
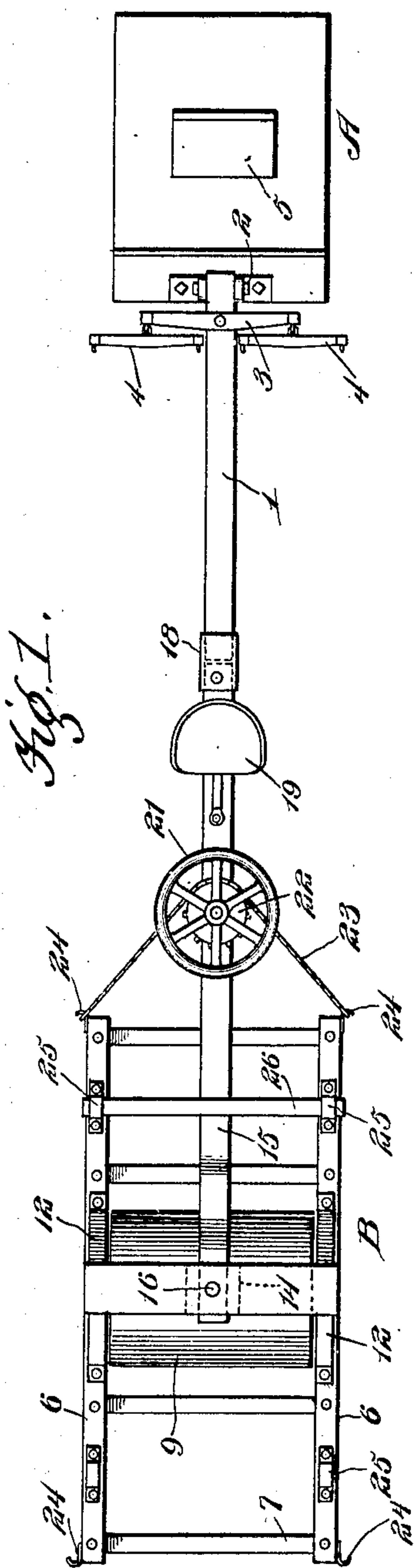


J. V. MILLER.
ROAD ROLLER.
APPLICATION FILED AUG. 21, 1908.

925,714.

Patented June 22, 1909.



Witnesses

Louis R. Heinrichs
Ch. Bradway

Josiah V. Miller ^{Inventor}

Victor J. Evans ^{Attorney}

UNITED STATES PATENT OFFICE.

JOSIAH V. MILLER, OF JUDGE, MICHIGAN.

ROAD-ROLLER.

No. 925,714.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed August 21, 1908. Serial No. 449,648.

To all whom it may concern:

Be it known that I, JOSIAH V. MILLER, a citizen of the United States, residing at Judge, in the county of Crawford and State of Michigan, have invented new and useful Improvements in Road-Rollers, of which the following is a specification.

This invention relates to road rollers, intended primarily for use in rolling the snow on a road-bed for rendering the latter passable, although it is to be understood that it is not necessarily limited to this use.

The invention has for one of its objects to provide a machine of this character which is comparatively simple and inexpensive in construction, efficient in use and readily manipulated and steered.

Another object of the invention is the provision of a rolling machine in which the rollers are mounted upon the frame in front of a sled and attached to a sled drawn by horses, the roller being arranged in front of the horses so that they will have a hard road-bed on which to travel and thus have less work to do and at the same time enable the roller to be more readily steered.

A further object is the employment of means for readily connecting the sled to either side of the roller-carrying train so that the turning of the machine, which is comparatively long, is unnecessary.

With these and other objects in view, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention:—Figure 1 is a plan view of the machine. Fig. 2 is a side view thereof.

Similar reference characters are employed to designate similar parts in the several figures.

Referring to the drawings, A designates a sled or carriage and B the roller attachment, the sled being provided with a tongue 1 projecting forwardly therefrom and connected thereto by a bolt 2 which forms a horizontal pivot on which the tongue can swing to insure the necessary flexibility between the sled and roller attachment in going over undulations or hills in the road-bed. On the rear end of the tongue is a draft device consisting of a double tree 3 and swingle trees 4 to

which draft animals can be attached. The sled may be provided with a seat 5 for the driver.

The roller B comprises a frame which consists of side bars 6 and transverse end bars 7 and intermediate bars 8, the intermediate bars 8 being spaced apart a sufficient distance to accommodate between them the roller 9. The roller which is of any desired weight and size has end journals 10 mounted in bearings 11 on the side bar 6 of the frame. On the side bars are inverted V-shaped brackets 12 which support a cross bar 13 disposed above the roller 9. In the center of the cross bar is a horizontal slot 14 extending from the front to the rear and into which projects the front end of the connecting member or tongue extension 15 the connecting member being secured to the cross bar 14 by a pivot or king bolt 16. The rear end of the connecting member 15 is attached by a coupling device 18 to the front end of the tongue 11 so that the member 16 forms an extension of the latter. Beyond the member 15 is a seat 18 for the operator who steers the roller. In front of the seat 19 is a steering post 20 journaled at its lower end in the member 15 and equipped at its top with a hand wheel 21. On the post is a sprocket wheel 22 around which extends a sprocket chain 23 that has its ends connected to the rear corners of the roller frame by hooks 24 so that by turning the steering post the roller attachment can be turned to the right or left on the pivot 16.

On the side bars 6 of the roller attachment are devices 25 located at a point between the end cross bars 7 and adjacent intermediate bars 8 and in the rear pair of devices is held a cross bar 26 that engages over the connecting piece or tongue extension 15. This cross bar 26 coöperates with the rear end cross bar 7 which extends under the tongue extension so as to support the front end of the tongue extension on the roller attachment frame, the tongue extension being free to slide back and forth along the cross bars 7 and 26.

In practice the machine is moved over the road in which the snow is to be rolled and the operator guides the movement of the machine by means of the steering wheel 21 while the driver on the sled has nothing more to do than to keep the horses traveling. When the end of the road is reached instead of turning the vehicle the tongue extension 15 is detached from the roller attachment and

the sled by removing the pivot 16 and uncoupling the device 18 from the tongue 1. The chain 23 is also detached and the cross bar 26 removed from the roller attachment frame. The tongue extension is then carried to the front of the roller frame and inserted in the slot 14 and secured to the cross piece 13 by the pivot 16 and the cross bar 26 is replaced in the front sockets. The chain 23 is then attached to the hooks at the front corners of the frame, after which the sled is driven around to the front of the roller attachment and turned so that the tongue extension can be connected with the tongue 1. After this is done, the machine can be run backwardly over the road-bed to roll another stretch of the road. While manipulating the machine in this manner, it is unnecessary to turn the machine in going back and forth. From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the apparatus, which I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illustrative, and that such changes may be made when desired, as are within the scope of the claims.

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

1. In a machine of the class described, the combination of a carriage, a roller attachment, a tongue connection between the carriage and attachment and reversibly connected with the latter, a draft device for the carriage, and a steering mechanism between

the tongue and attachment, and mounted on the tongue, a seat on the tongue a horizontally disposed pivot connecting the tongue with the carriage, and a vertical pivot connecting the tongue with the attachment.

2. In a machine of the class described, the combination of a vehicle, a road working attachment, a tongue extending from the front of the vehicle and reversibly and pivotally connected with the said attachment, a draft device attached to the tongue adjacent the vehicle, a steering element permanently mounted on the tongue adjacent the attachment, a device associated with the tongue and adapted to be connected with either end of the attachment for turning the latter about the pivotal connection between the tongue and vehicle, and an operator's seat mounted adjacent the steering element.

3. A road working attachment comprising a frame, a vertical pivot thereon located adjacent the center, a tongue extending longitudinally of the attachment and detachably connected with the pivot whereby the frame can be reversed with respect to the tongue, cross members on the frame and disposed in front of and behind the pivot respectively and over the rear one of which the tongue slides, and a removable cross piece cooperating with either of the first-mentioned cross pieces and extending over the tongue to prevent relative movement between the tongue and frame in a vertical plane.

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

JOSIAH V. MILLER.

Witnesses:

ALVIN LACHAPELLE,
OSCAR PALMER.