

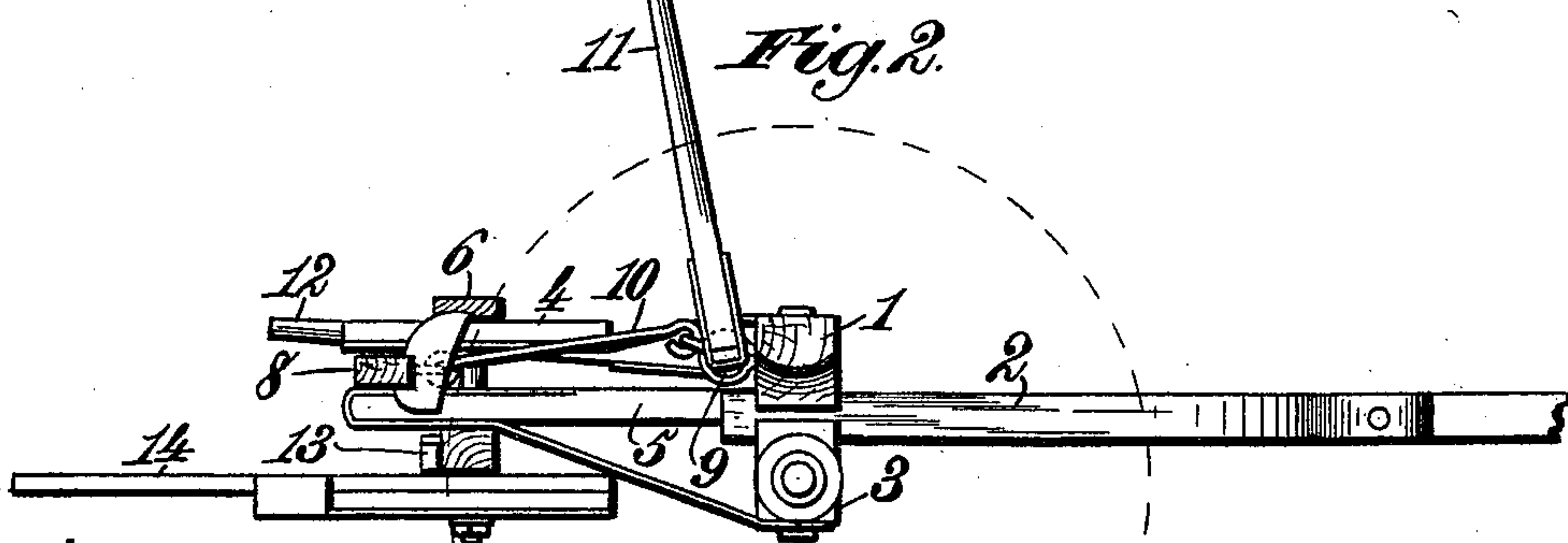
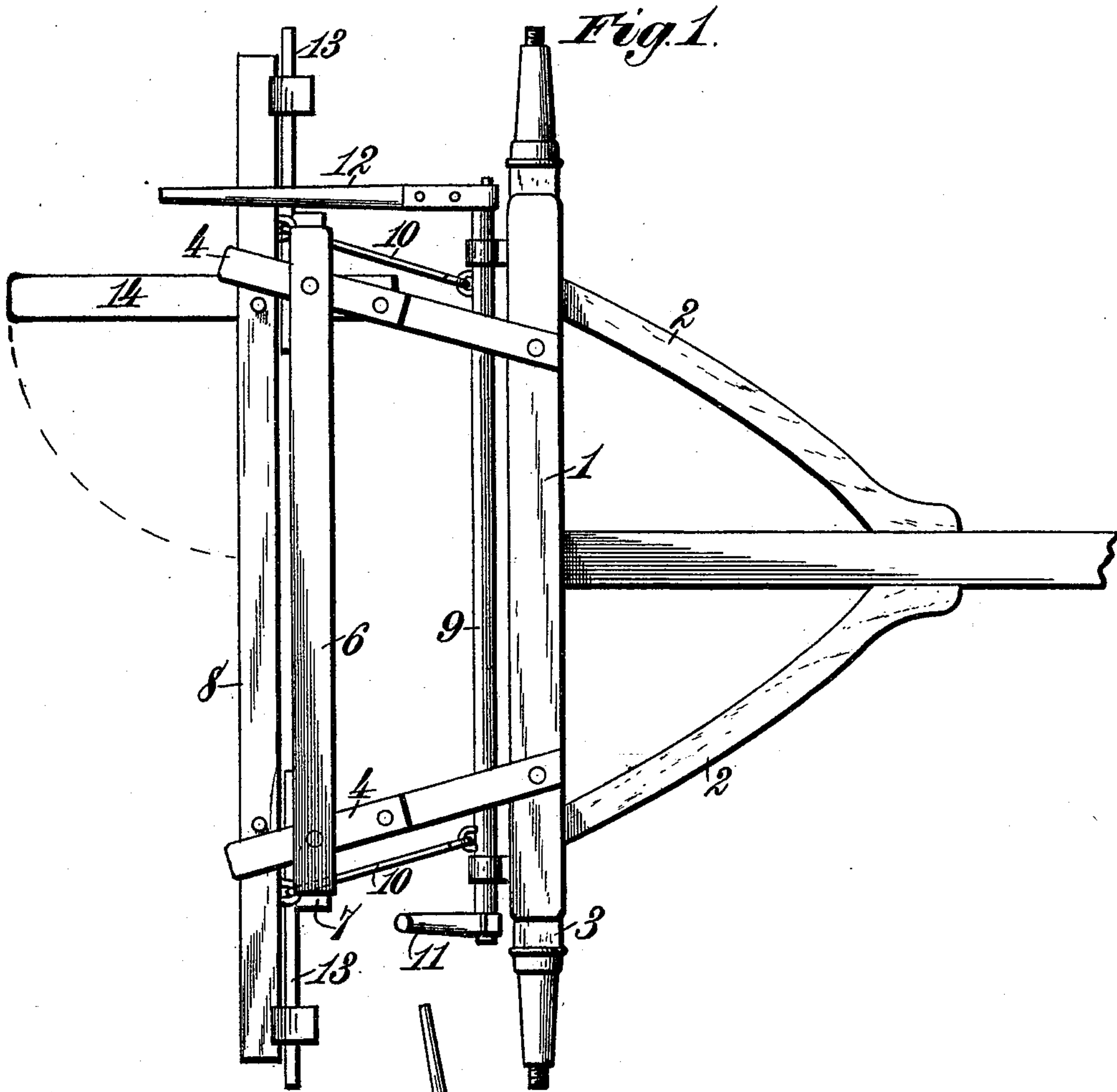
(No Model.)

2 Sheets—Sheet 1.

A. W. BURKHOLDER.
WAGON BRAKE.

No. 587,180.

Patented July 27, 1897.



Witnesses:
Robert G. Smith,
Harry S. Woodland

Inventor:
Abraham W. Burkholder.
By *James L. Norvig.*
Atty.

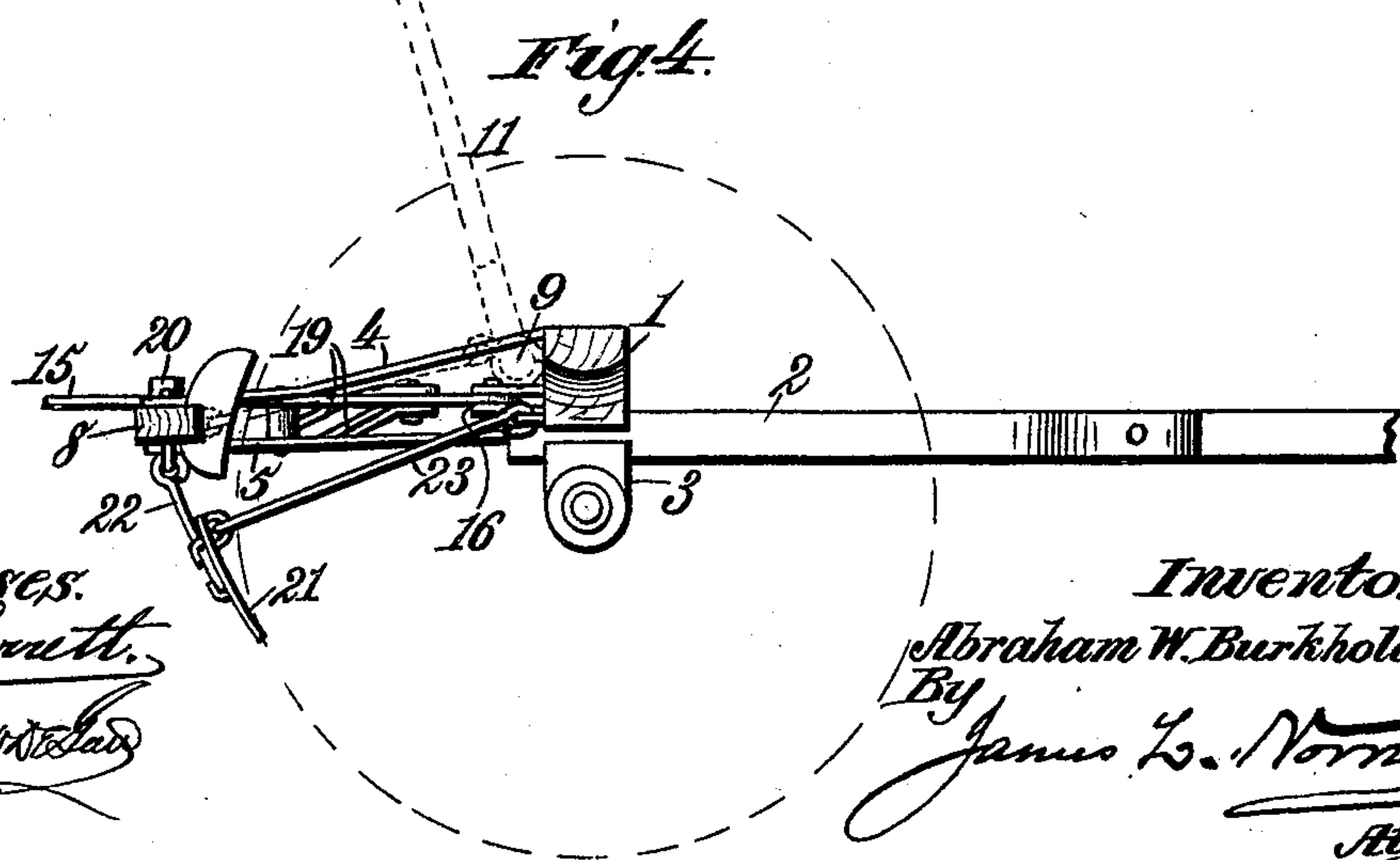
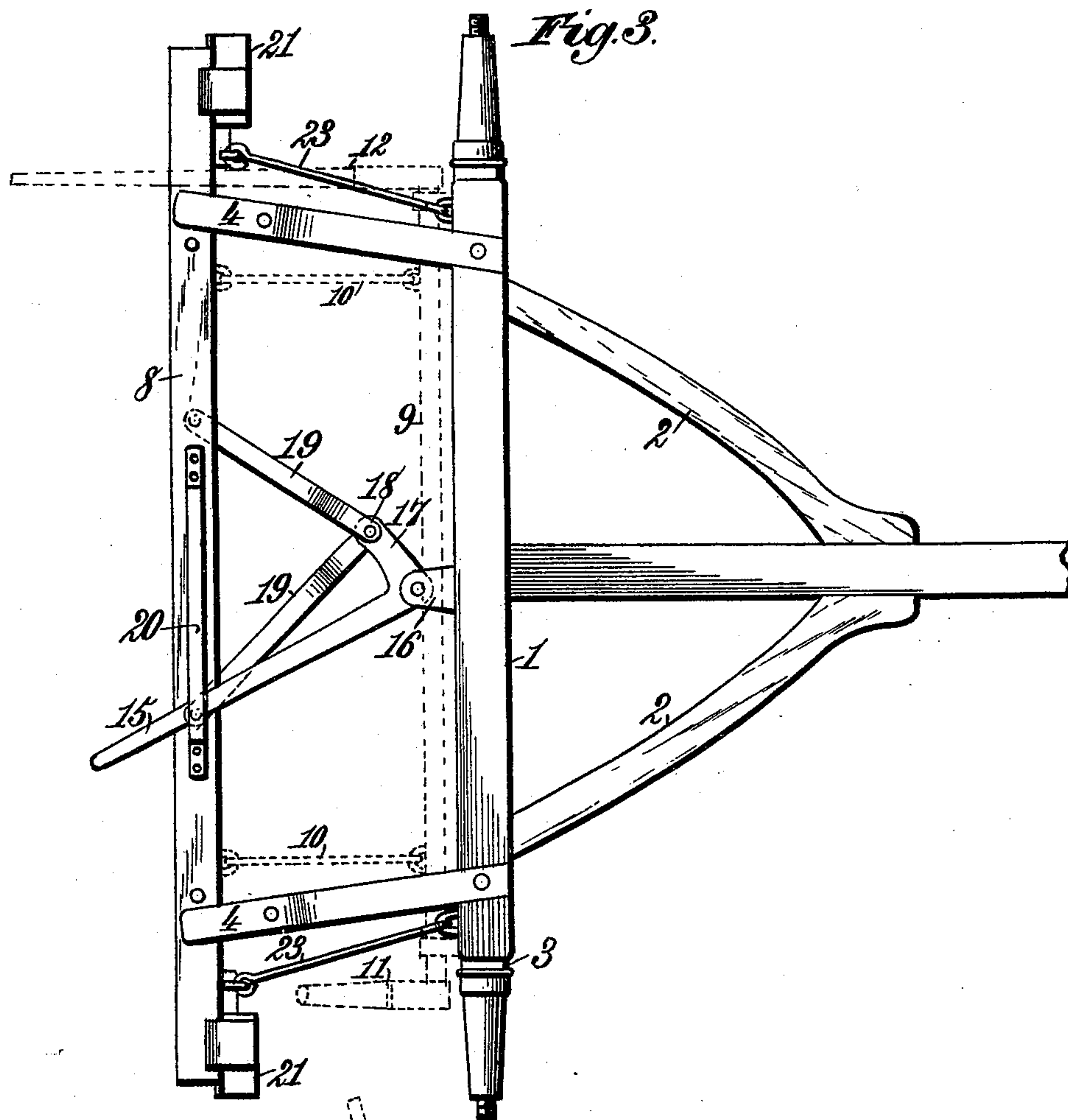
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2 Sheets—Sheet 2.

A. W. BURKHOLDER.
WAGON BRAKE.

No. 587,180.

Patented July 27, 1897.



Witnesses:
Robert Smith.
William S. Woodland.

Inventor.
Abraham W. Burkholder.
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UNITED STATES PATENT OFFICE.

ABRAHAM W. BURKHOLDER, OF PLEASANT HALL, PENNSYLVANIA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 587,180, dated July 27, 1897.

Application filed March 13, 1897. Serial No. 627,366. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM W. BURKHOLDER, a citizen of the United States, residing at Pleasant Hall, in the county of Franklin and State of Pennsylvania, have invented new and useful Improvements in Wagon-Brakes, of which the following is a specification.

This invention relates to wagon-brakes, and has for its objects to provide convenient means for applying or operating the brakes from the rear of the wagon to throw them into contact with or away from the rear part of the wheels and to provide a novel arrangement of scrapers for keeping the wheels and brakes from becoming clogged with mud.

The invention consists in features of construction and novel combinations of parts in a wagon-brake and wheel-scraper for use more especially with farm-wagons, as hereinafter described and claimed.

In the annexed drawings, Figure 1 is a plan of the rear portion of a wagon, showing one form of my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a plan illustrating a central arrangement of brake-lever mechanism for operating the brakes from the rear of the wagon by one walking behind. Fig. 4 is a side elevation of the same.

With reference first to the construction shown in Figs. 1 and 2, the numeral 1 designates the rear bolster, 2 the usual rear hounds, and 3 the rear axle. To the bolster 1 and axle 3 there are secured additional rear hounds—namely, upper and lower. (Designated in the drawings by the numerals 4 and 5, respectively.) These hounds 4 and 5 are set a little to the inside of the rear ends of the hounds 2, and they may be arranged to support, respectively, an upper rear cross-bar 6 and a lower rear cross-bar 7, as shown.

Between the rear ends of the additional rear hounds 4 and 5 there is supported the rub-bar or brake-bar 8, which occupies a position at the rear of the rear wheels. For the purpose of operating this brake-bar from the rear and sides of the wagon there may be provided a rock-shaft 9, journaled to the rear side of the bolster 1 and connected with the brake-bar by means of links 10. The opposite ends of the rock-shaft 9 are provided with levers or handles 11 and 12 at the sides of the

wagon. One of these levers is extended vertically for any suitable distance to permit the brakes to be conveniently operated from the top of a loaded wagon. The other rock-shaft side lever or arm 12 projects rearward to permit operation of the brakes from the rear.

On the ends of the lower rear cross-bar 7 there may be placed mud-guards 13 to keep the wheel-tires clear from mud, which would be liable to clog the operation of the brakes. To this lower rear cross-bar 7, near one end, there may be pivotally attached a laterally-swinging seat-bar 14, so that by turning said bar 14 rearward a person can be seated thereon in a convenient position for operating the lever 12 to actuate the brakes from the rear of the wagon.

For the purpose of permitting the brakes to be operated by a person walking behind the wagon there may be provided a centrally-arranged and rearward-projecting lever 15, Figs. 3 and 4, that is fulcrumed between two horizontally-projecting lugs 16 on the rear of the bolster. At its pivotal end this horizontally-swinging lever 15 is provided with an arm 17, that has a pivotal connection with the jointed ends 18 of two links 19, the other ends of which are pivotally connected with the brake-bar 8, that is supported between the additional rear hounds 4 and 5, as already explained. The rearward-extended end of the lever 15 is above the central portion of the brake-bar 8, or thereabout, and may be confined by means of a strap or guide 20 on the top of the brake-bar, as shown. In this arrangement of central rearward-projecting lever 15 and links 19 the brakes will be applied to the rear of the wheels by throwing said lever 15 to the left, and, on the other hand, a movement of said lever 15 to the right will draw the brakes off from the wheels. By means of this lever 15 the brakes can be readily and promptly operated by any one walking at the rear of the wagon or properly seated on its rear end. Although I have shown this central-lever brake-operating mechanism only in Figs. 3 and 4, it will be obvious that it may be employed as well in the construction of brake mechanism illustrated in Figs. 1 and 2, the rock-shaft 9 and its end levers 11 12 being used to operate the brakes from the top and side of the wagon, as indi-

cated by dotted lines in Fig. 3, and the lever 15 and links 19 being used for operation of the brakes from the rear. Either brake-lever appliance may be also employed alone or independent of the other, and either may be quickly detached and laid aside when its employment is not desired.

As a means for keeping the wagon-wheels free from mud, I prefer to provide scrapers 21, Fig. 4, having their shanks 22 pivotally attached to the underside of the brake-bar 8 and connected by bracing links or stays 23 with the rear side of the bolster.

The ends of the brake-bar 8 may be provided with any suitable shoes or friction-surfaces arranged for contact with the rear of the wheels. By applying the brakes to the rear of the wheels with simple and convenient arrangement of the operating mechanism, as described, whereby the brakes can be readily controlled from the top or sides of the wagon or from the rear by one walking behind, the usual risk of accident to the person managing the brakes will be greatly diminished, and a driver walking at the rear can readily watch the horses and at the same time attend to the brakes without danger of accident. The horizontal movement of the brake-lever 15 is particularly convenient for use in operating the brakes while walking. The brakes will operate firmly without jar or chatter, and with the provision of scrapers for keeping the wheels free from mud there is no liability of clogging or obstruction to the proper action of the brakes.

What I claim as my invention is—

1. In a wagon-brake, the combination with the rear bolster, rear axle and rear hounds, of the additional upper and lower rear hounds 4 and 5 located at the rear of the axle, the brake-bar or rub-bar 8 supported at the rear of the wagon-wheels and between the rear ends of said additional hounds to operate on

the wheels from the rear, brake-operating mechanism supported by the rear bolster and arranged for controlling the brake-bar from the side, rear and top of the wagon, and mud-scrapers carried by the brake-bar, for contact with the rear of the wheels, substantially as shown and described.

2. In a wagon-brake, the combination with the rear bolster, rear axle and rear hounds, of the additional upper and lower rear hounds 4 and 5 located at the rear of the axle, the brake-bar supported at the rear of the wagon-wheel and between the said additional upper and lower rear hounds to operate on the wheels from the rear, and brake-operating mechanism supported by the rear bolster and arranged for controlling the brake-bar from the rear, substantially as described.

3. In a wagon-brake, the combination with the rear bolster, rear axle and rear hounds, of the additional upper and lower rear hounds 4 and 5 located at the rear of the axle, a brake-bar supported at the rear of the wagon-wheels and between the said additional upper and lower rear hounds, a horizontally-swinging lever pivoted to the rear bolster and extended to the rear of the wagon, the said lever having at its pivotal end a lateral arm, links directly connecting said lever-arm with the brake-bar, whereby a movement of the lever to one side or the other will apply or throw off the brakes, and wheel-scrapers pivoted to the brake-bar and connected with the bolster by stays, substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ABRAHAM W. BURKHOLDER.

Witnesses:

T. J. MINEHART,
J. NEVIN POMEROY.