

No. 670,755.

Patented Mar. 26, 1901.

R. F. ARMSTRONG.

WAGON BRAKE.

(Application filed Dec. 13, 1900.)

(No Model.)

Fig. 1.

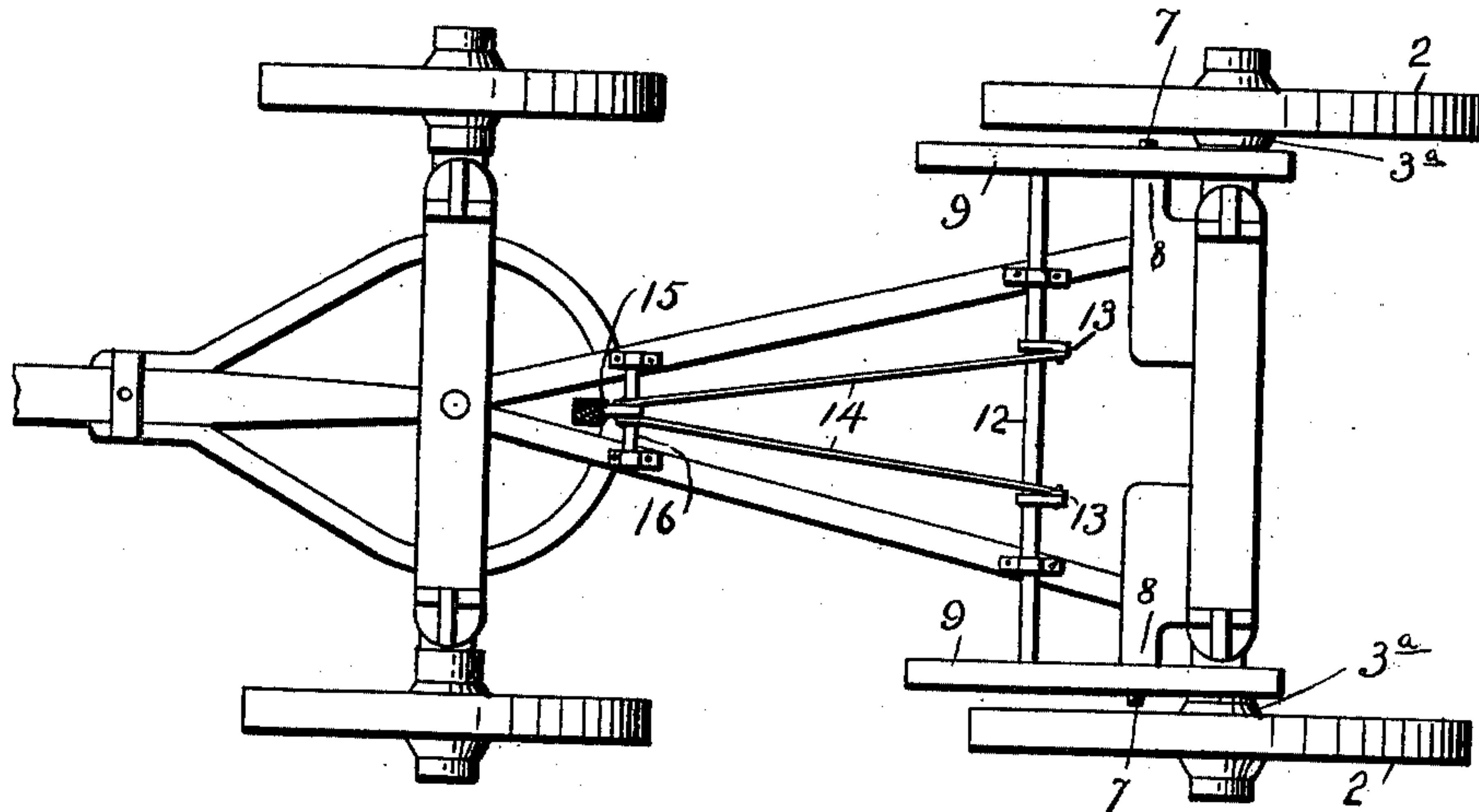


Fig. 2.

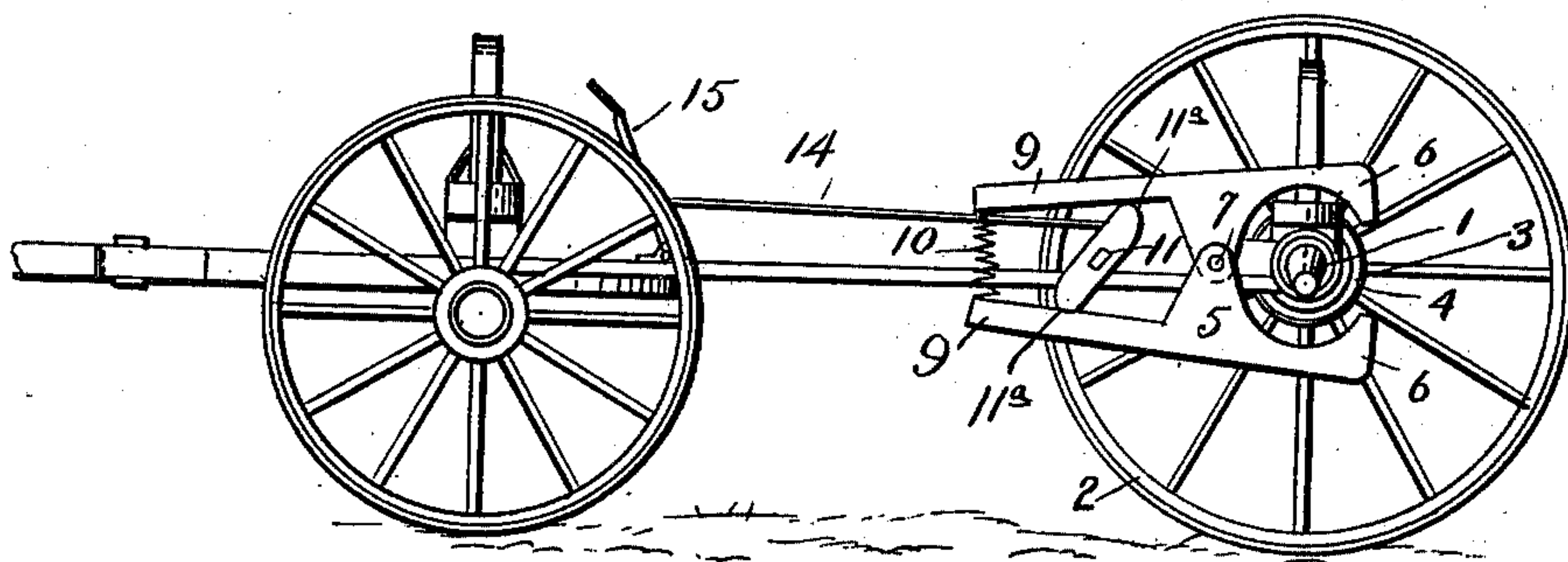
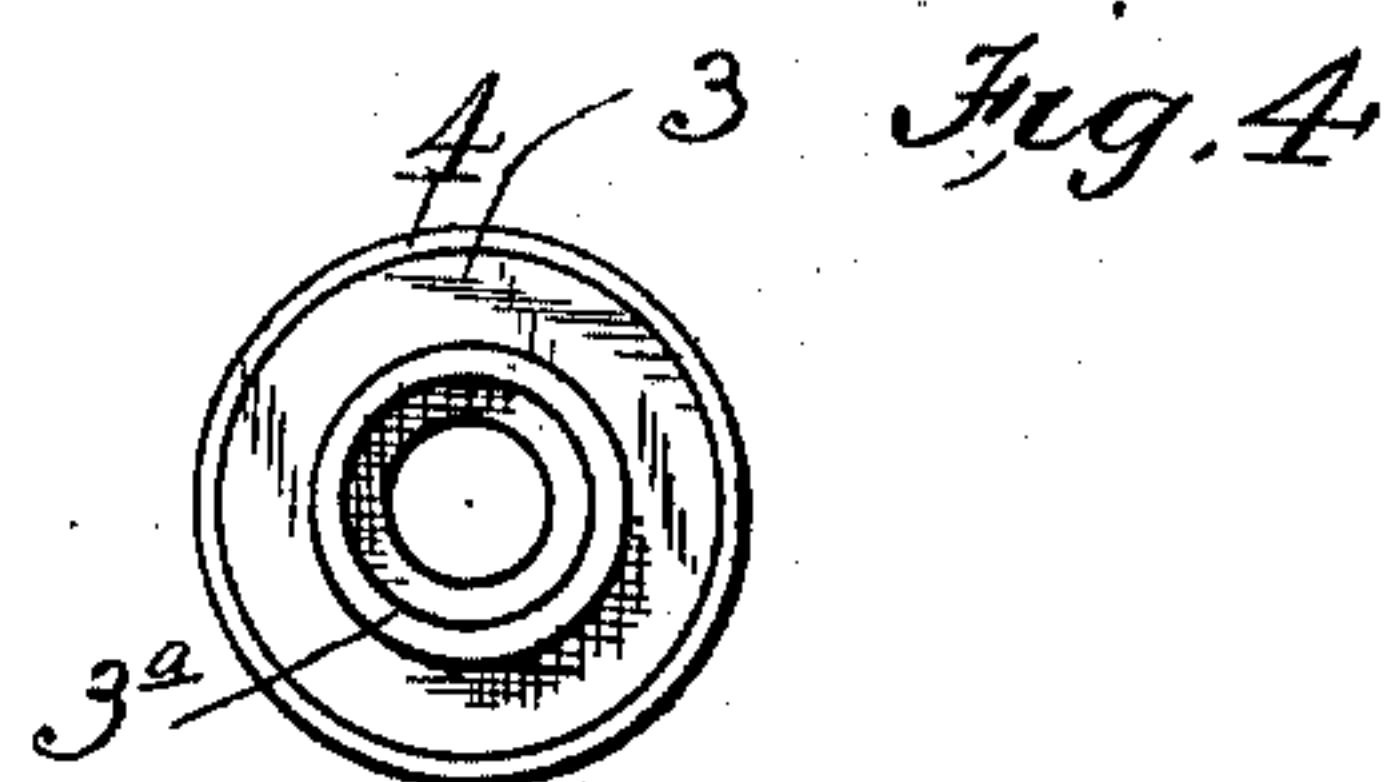
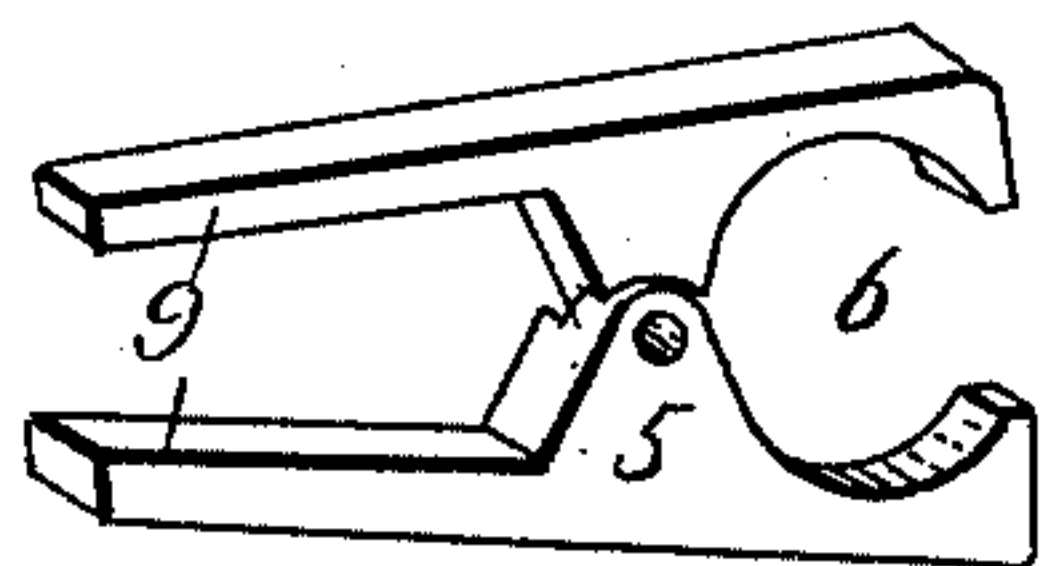


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

ROBERT F. ARMSTRONG, OF SEWELLSVILLE, OHIO.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 670,755, dated March 26, 1901.

Application filed December 13, 1900. Serial No. 39,721. (No model.)

To all whom it may concern:

Be it known that I, ROBERT F. ARMSTRONG, a citizen of the United States, residing at Sewellsville, in the county of Belmont and State of Ohio, have invented new and useful Improvements in Wagon-Brakes, of which the following is a specification.

My invention relates to wagon-brakes; and the object of the same is to produce a device of this character which will be simple and compact in structure and efficient in operation. The novel construction designed by me to accomplish this object is fully described in this specification and claimed, and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a plan view of the running-gear of a wagon with my improved brake attached thereto. Fig. 2 is a side elevation of the same with the rear wheel removed. Fig. 3 is a perspective of the clutch. Fig. 4 is a detail of the hub of one of the rear wheels.

Like numerals of reference designate like parts in the different views of the drawings.

My brake consists, essentially, of a clutch or a pair of clutches actuated by means of cams secured on a shaft extending transversely the running-gear, which shaft is connected to be operated by the driver.

The numeral 1 designates the rear axle of my wagon. Wheels 2 are mounted on this axle and secured in the ordinary manner. To provide a gripping-surface for the clutches, bands or collars 3 are secured or shrunk on the hubs 3^a of the rear wheels. These bands 3 are faced with leather or some other semi-elastic material 4, which will afford a good holding-surface. The clutches 5 for gripping the faces of the bands 3 are set at right angles with the rear axle, with their jaws 6 embracing the bands. These jaws 6 are pivoted to spindles 7, formed on the ends of an axle 8, clipped to the axle 1. Semicircular grooves are formed in the jaws 6 to accommodate the collars and provide receptacles for some frictional substance, such as gum. Each of the jaws 6 has a rearwardly-extending arm 9 and spiral springs 10, attached to the outer ends of these arms and serving to hold the clutches normally open and out of contact with the collars 3. A pair of cams 11 are located intermediate the pairs of arms 9 and are de-

signed to operate them to set the clutches. These cams 11 are beveled and rounded off at each end at 11^a and are rigidly keyed to a shaft 12, which extends transversely the wagon and is journaled in boxes mounted on the reach-poles. The shaft 12 is fitted with arms 13, which are secured to connecting-rods 14, which extend forward and are oppositely connected to an arm 15, mounted on a shaft 16. The arm 15 may be further connected to a lever to be operated by the driver in the usual manner; but this will be readily understood, and therefore requires no further description.

In operating the brake the arm 15 is pulled forward, which motion will be communicated to the cams 11 through the medium of the connecting-rods 14 and shaft 12. The rounded points of these cams 11 will contact with arms 9, expand them, and actuate the jaws 6 to grip the collars 3. On the release of the arm 15 the springs 10 will restore the jaws to their normal positions. The collars 3 may be secured to the hubs in three places only, and thus prevent heating the hubs.

I do not wish to be limited as to details of construction, as these may be modified in many particulars without departing from the spirit of my invention.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent, is—

1. A brake for wagons comprising the combination, of collars rigidly mounted on the hubs of the rear wheels, clutches having two pivoted semicircular jaws located to engage said collars and rearwardly-disposed arms, coiled springs mounted between said arms, a shaft extending transversely the wagon and parallel to the rear axle, cams keyed on said shaft and positioned intermediate the said arms to operate said jaws, arms on said shaft, connecting-rods pivoted to said arms, and means for actuating said connecting-rods to operate said clutches and set the brakes, substantially as described.

2. In a wagon-brake, the combination, substantially as described, of a collar mounted on the hub of one of the rear wheels, a clutch having two pivoted jaws located to engage said collar, each of said jaws having a rearwardly-extending arm, a coiled spring se-

cured intermediate said arms, and a cam keyed on a shaft and extending between said arms.

3. In a wagon-brake, the combination, substantially as described, of a collar rigidly mounted on the rear hub of a wagon, a clutch comprising two pivoted jaws having rearwardly-disposed arms, said clutch being located to grip said collar, means for holding
10 said jaws normally open, and means for ac-

tuating said arms to close said jaws to grip said collar, said means being operated by the driver.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 15

ROBERT F. ARMSTRONG.

Witnesses:

L. D. BEVAN,

HERMAN WALKER.