

No. 731,117.

PATENTED JUNE 16, 1903.

C. M. McCoy.
WAGON BRAKE.

APPLICATION FILED AUG. 22, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

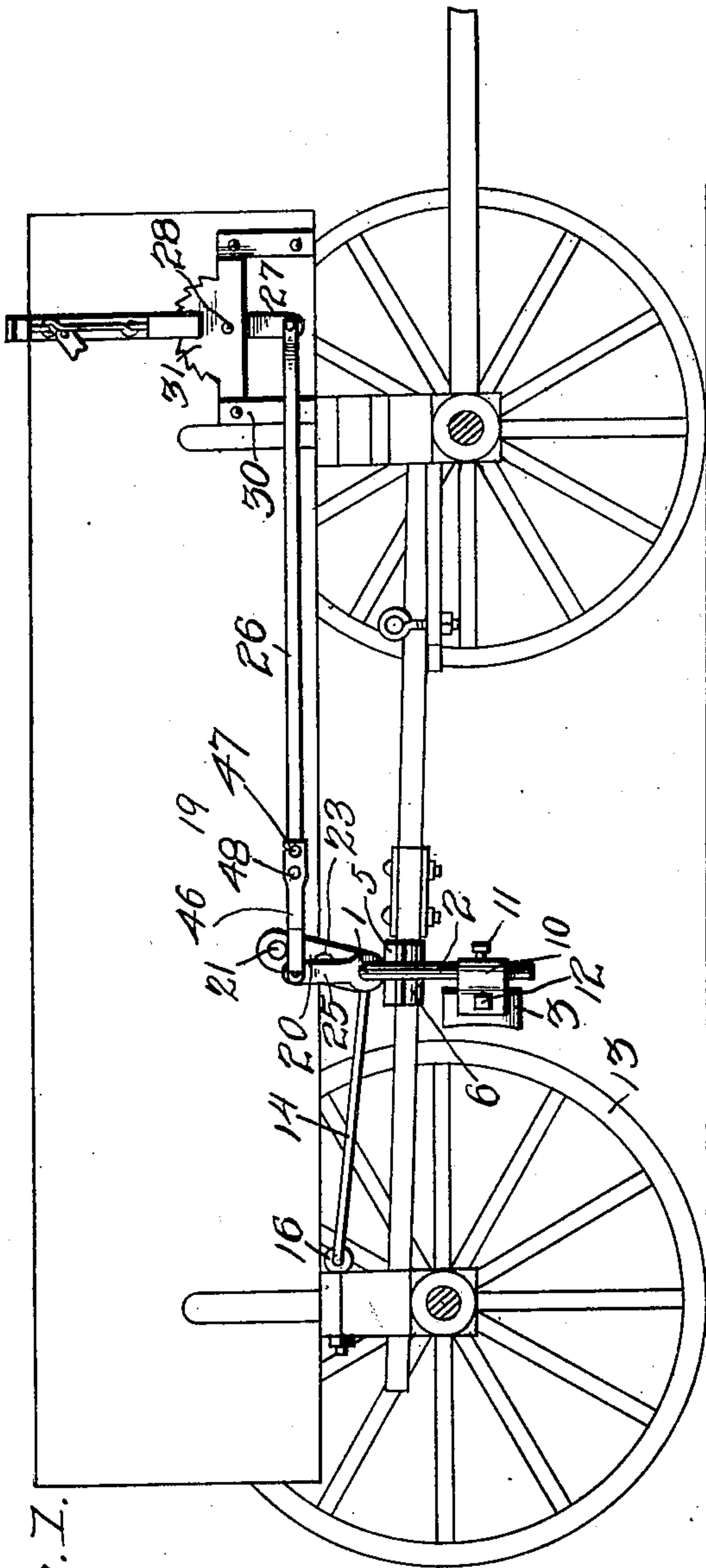


Fig. 1.

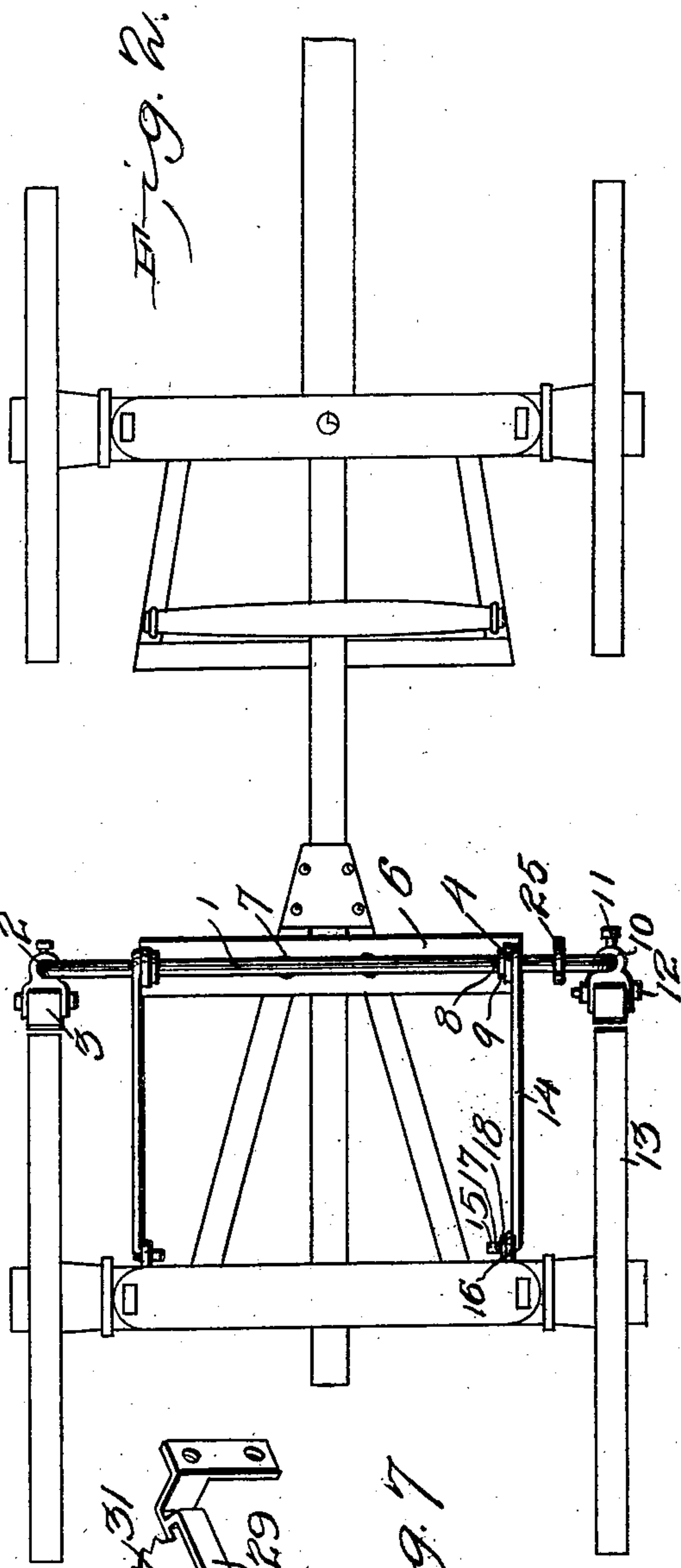


Fig. 2.

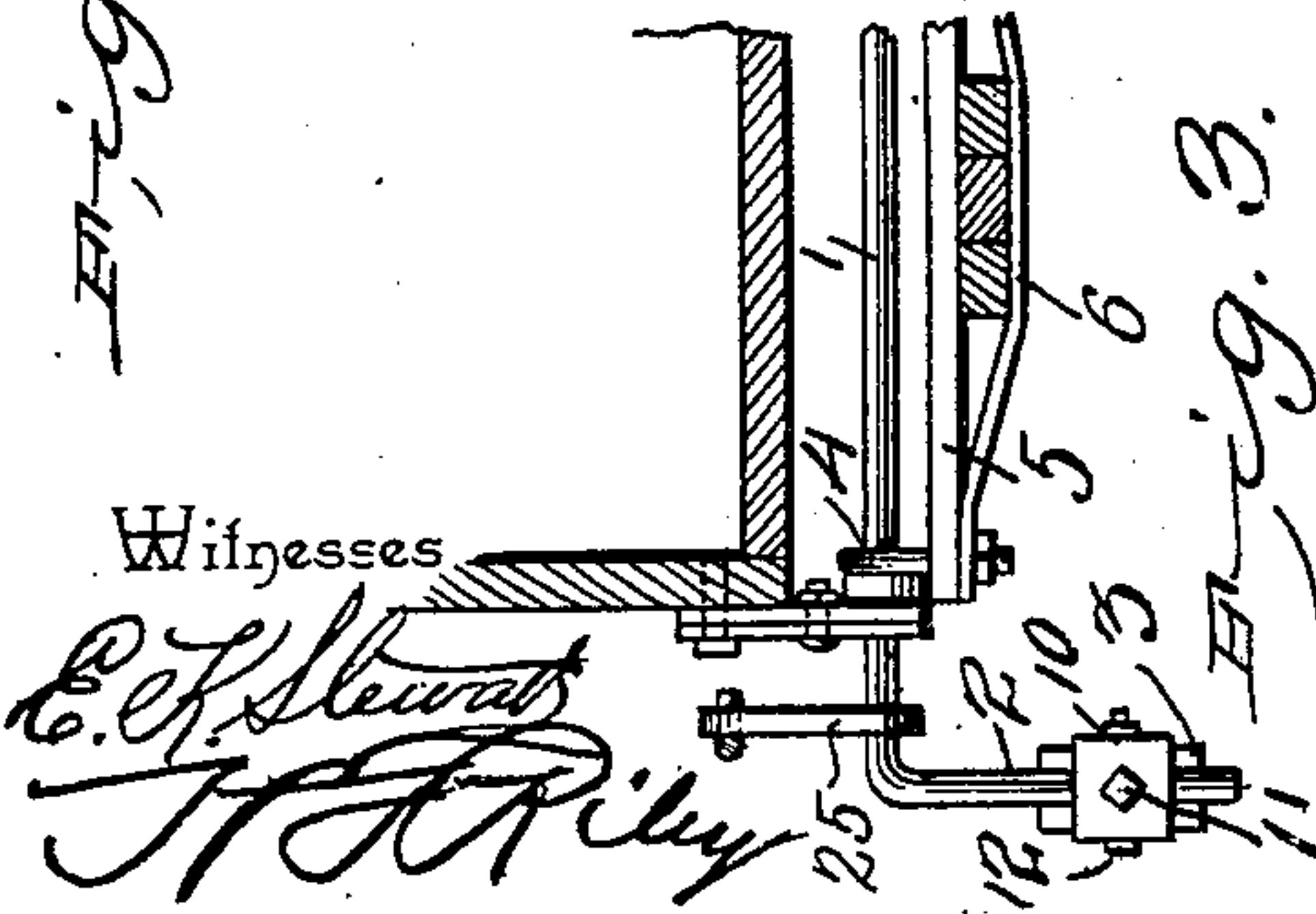


Fig. 3.

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No. 731,117.

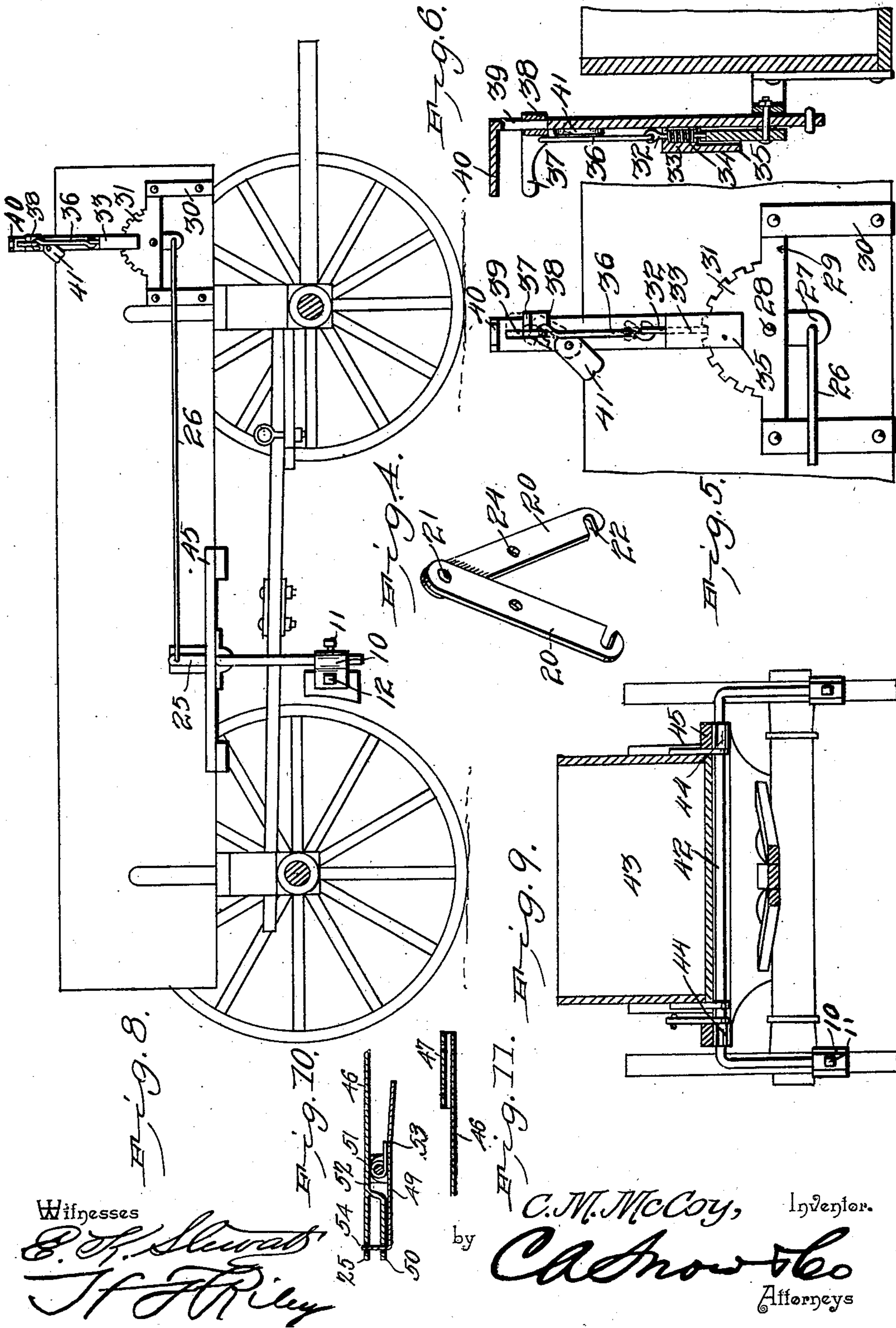
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2 SHEETS—SHEET 2:



THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CYRUS MILTON MCCOY, OF STANHOPE, IOWA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 731,117, dated June 16, 1903.

Application filed August 22, 1902. Serial No. 120,660. (No model.)

To all whom it may concern:

Be it known that I, CYRUS MILTON MCCOY, a citizen of the United States, residing at Stanhope, in the county of Hamilton and State of Iowa, have invented a new and useful Wagon-Brake, of which the following is a specification.

The invention relates to improvements in wagon-brakes.

The object of the present invention is to improve the construction of wagon-brakes and to increase the strength, durability, and efficiency of the same and to provide a simple and comparatively inexpensive construction adapted to be applied to the running-gear or to the body or box of a wagon and capable when applied to the running-gear of enabling the body or box to be readily detached when it is desired to use the running-gear for other purposes.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a side elevation of a wagon-brake constructed in accordance with this invention and shown applied to a wagon, the brake-shaft being mounted on the running-gear. Fig. 2 is a plan view of the same, the wagon body or box being removed. Fig. 3 is a transverse sectional view of the same, illustrating the manner of mounting the brake-shaft. Fig. 4 is a detail perspective view of the separable hanger for detachably connecting the brake-shaft with the wagon body or box. Fig. 5 is an elevation of the operating-lever and the ratchet mechanism for locking the lever in its adjusted position. Fig. 6 is a vertical sectional view of the same. Fig. 7 is a detail perspective view illustrating the construction of the toothed segment and the supporting-frame in which the operating-lever is fulcrumed. Fig. 8 is a side elevation illustrating the manner of mounting the brake-shaft. Fig. 9 is a transverse sectional view of the same. Fig. 10 is a detail sectional view illustrating the construction for detachably securing the connecting rod or bar to the arm of the brake-shaft. Fig. 11 is a similar view

illustrating the manner of securing the sections of the connecting bar or rod together.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a transverse brake-shaft designed to be constructed of either tubular or solid metal and provided at its ends with depending arms 2, which may be formed by bending the ends of the shaft downward, as clearly illustrated in Fig. 3; but the depending arms 2, which carry brake-shoes 3, may consist of separate pieces coupled to the body portion of the shaft, if desired. The brake-shaft is journaled in bearing-eyes 4 of bolts which extend through a transverse bar or beam 5 and which also form fastening devices for securing a bowed brace 6 to the bar 5, as clearly shown in Fig. 3. The transverse bar 5 is secured by bolts 7 or other suitable fastening devices which pass through the front portions of the rear hounds and through the bowed brace 6, which forms a truss for supporting the brake mechanism. The brake-shaft is held against longitudinal movement by means of keys 8 and washers 9, the keys being passed through the shaft and the washers 9 being interposed between the keys and the bearing-eyes. The brake-shoes are mounted in vertically-adjustable clamps 10, having recesses to receive the brake-shoes and provided with eyes for the reception of the arms 2. The clamps, which are secured at the desired adjustment on the arms 2 by means of set-screws 11, are provided at opposite sides of the brake-shoe-receiving recesses with perforations for the reception of bolts 12. By this construction the brake-shoes may be readily adjusted to enable them to effectively engage the wheels 13.

The brake-shaft is held against movement longitudinally of the running-gear by means of bracing-rods 14, provided at their front ends with eyes to receive the brake-shaft and extending rearward therefrom to the rear bolster and provided at their rear ends with inwardly-extending engaging portions 15. The inwardly-extending engaging portions 15 project through eyes 16 and are secured to the same by means of keys 17 and washers 18. The eyes are provided with threaded

shanks to form eyebolts which pass through the rear bolster.

The brake-shaft is detachably connected with the wagon body or box 19 by separable hangers composed of two bars or members 20, pivoted at their upper ends by bolts 21 or other suitable fastening devices to the sides of the wagon body or box and depending therefrom to the brake-shaft and provided at their lower ends with recesses 22, extending inward from their inner edges and forming an eye to receive the brake-shaft when the bars or members 20 are closed. The bars or members are secured in their closed position by means of a bolt 23, located beneath the wagon body or box and passing through perforations 24 of the bars or members. The bolt 23 is adapted to be readily removed to permit the bars or members to be swung apart, as illustrated in Fig. 4, for releasing the transverse brake-shaft to permit the removal of the wagon body or box. The hangers or connecting devices assist in holding the wagon body or box in position and at the same time operate to support the brake mechanism and the running-gear.

The brake-shaft is provided at one end with a rigid upwardly-extending arm 25, which is connected by a rod or bar 26 to the lower end of an operating-lever 27, and the said connecting rod or bar 26 is composed of front and rear sections or members, the rear section or member 46 being provided at its front end with a cuff 47, receiving the rear end of the front section. The adjacent ends of the sections or members are provided with perforations for the reception of a fastening device 48, whereby the connecting rod or bar is adapted to be varied in length to regulate the movement of the brake-shoes. The rear section is provided at its rear end with a spring-actuated catch 49, and it has a plate 50 interposed between the engaging end of the catch and the rear end of the section 46 and secured to the latter. The plate 50 is angularly bent, and its outer portion is spaced from the rear end of the section or member 46 to receive the arm 25 of the rock-shaft. The catch is provided between its ends with perforated ears for the reception of a pivot 51, which also passes through similar ears 52 of the section or member 46. A coiled spring 53 is disposed on the pivot and is adapted to hold the catch in engagement with the arm 25 of the rock-shaft. The catch is provided at its engaging end with a lug or projection 54, which extends through an opening of the plate 50 and engages an aperture of the arm 25, whereby the said arm 25 is secured to the connecting device. The front or inner end of the catch is adapted to be depressed to throw the engaging end outward from the arm 25 to separate the parts when it is desired to remove the wagon body or bed.

The brake-lever is fulcrumed between its ends on a bolt 28 to enable its upper or han-

dle portion to be drawn backward in applying the brake, thereby rendering the operation of the brake more convenient for the driver than those brakes which are applied by throwing the upper portion of the brake-lever forward. The said lever 27 is fulcrumed within a supporting-frame consisting of a central longitudinal oblong portion 29 and approximately L-shaped arms 30, having upright portions for attachment to the wagon-body and provided with horizontal portions which are angularly bent for offsetting the central oblong body portion from the wagon-body. The outer side of the central portion 29 of the supporting frame or bracket is provided with an upwardly-extending toothed segment 31, forming a ratchet and adapted to be engaged by a spring-actuated pawl or detent 32 of the operating-lever. The spring-actuated dog, which is located above the ratchet, passes through a casing or housing 33, in which the coiled spring 34 is arranged and which is provided with a depending arm or lug 35, located at the outer face of the toothed segment. The toothed segment may be provided with beveled teeth, as shown in Fig. 1, to permit the dog or detent to slide forward freely over the segment; but the teeth of the segment may be provided at each of their faces with a shoulder, as illustrated in Fig. 7. The spring-actuated pawl is connected by a rod 36 with a vertically-movable handle 37, having an inner portion or shank 38, which is slidably mounted in a slot 39 of the upper portion of the lever. The shank 38 may be secured in the slot in any desired manner, and the handle 37 is located beneath a handle or grip 40, formed by bending the upper end of the operating-lever outward. The two handles 37 and 40 are adapted to be simultaneously grasped for enabling the operating-lever and the spring-actuated pawl to be simultaneously operated. The pawl is locked out of engagement with the toothed segment by means of a pivoted heart-shaped plate 41, having a recess at its free end and adapted to be swung upward longitudinally of the operating-lever to support the movable handle 37 in an elevated position.

In Figs. 8 and 9 is illustrated a modification of the invention, in which the brake-shaft 42 is mounted on the body or box 43 in suitable bearings 44, which are secured to the side steps 45, but which may be mounted in any other desired manner. The brake-shaft, which is provided with brake-shoes similar to those heretofore described, is connected by a rod with a brake-lever constructed and arranged similar to that heretofore described.

What I claim is—

1. In a device of the class described, the combination with a vehicle, of a transverse bar mounted upon the rear hounds and located above the same, a transversely-disposed

5 bowed brace extending beneath the hounds
and having its terminals arranged beneath
the ends of the transverse bar to form a truss,
fastening devices securing the brace to the
bar and provided at the upper face of the lat-
ter with bearings, a transverse brake-shaft
arranged in the bearings and located at the
upper face of the transverse bar and provided
with brake-shoes, and a lever for operating
10 the brake-shaft, substantially as described.

15 2. In a brake of the class described, the com-
bination with a vehicle, of a transverse bar
mounted upon the rear hounds at the upper
faces thereof, a bowed brace extending be-
neath the hounds and having its ends ar-
ranged at the ends of the transverse bar, fas-
tening devices securing the ends of the brace
and the bar together and provided at the up-
per face of the latter with bearings, a trans-
verse brake-shaft arranged in the bearings
and provided at its ends with brake-shoes,
longitudinal rods provided at their front ends
with eyes receiving the brake-shaft, said rods
being secured at their rear ends to the rear
25 bolster, and a lever for operating the shaft,
substantially as described.

30 3. In a brake of the class described, the com-
bination with a vehicle, of a brake-shaft
mounted on the running-gear, a lever for op-
erating the brake-shaft, and a separable
hanger connecting the brake-shaft with the
body of the vehicle and composed of two piv-
otally-connected sections or members pro-
vided with recesses arranged to receive the

brake-shaft and forming an eye when the sec- 35
tions or members are closed, said hanger be-
ing provided with a fastening device for se-
curing the sections or members in their closed
position, substantially as described.

4. In a brake of the class described, the com- 40
bination with a shaft having an arm, and an
operating-lever, of a connecting-bar, a plate
secured to the connecting-bar and provided
with an opening, said plate being spaced
from the bar to receive the said arm, and a 45
spring-actuated catch extending longitudi-
nally of the bar and provided with a lug pro-
jecting through the opening of the plate and
engaging the arm, substantially as described.

5. In a brake of the class described, the com- 50
bination of a shaft having an arm, an oper-
ating-lever, a connecting-bar provided at its
rear end with an opening receiving the arm,
a catch consisting of a lever pivoted between
its ends and provided at one end with an arm 55
extending through the adjacent side of the
opening and through the arm of the shaft for
detachably connecting the rod with the arm
of the shaft, and a spring for holding the
catch in engagement with the arm of the shaft, 60
substantially as described.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

CYRUS MILTON MCCOY.

Witnesses:

W. C. WILSON,
E. A. HANEY.