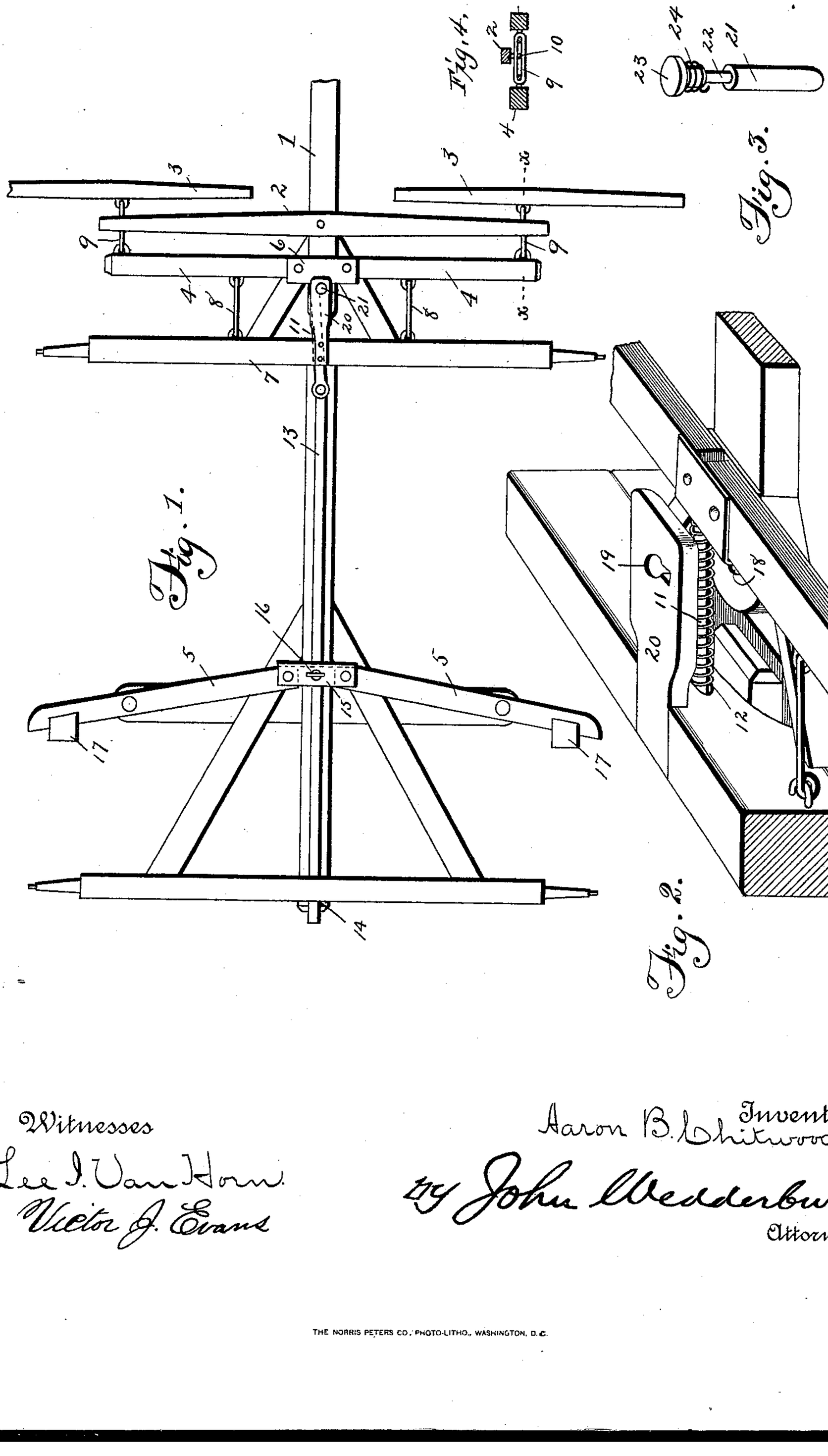
No. 607,341. Patented July 12, 1898.

A. B. CHITWOOD.

WAGON BRAKE.

(Application filed July 12, 1897.)

(No Model.)



Witnesses
Lee I. Van Horn.
Victor J. Evans

Inventor
Aaron B. Chitwood
by John Wedderburn
Attorney

UNITED STATES PATENT OFFICE.

AARON BIRDWELL CHITWOOD, OF LITTLE ROCK, ARKANSAS.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 607,341, dated July 12, 1898.

Application filed July 12, 1897. Serial No. 644,206. (No model.)

To all whom it may concern:

Be it known that I, AARON BIRDWELL CHITWOOD, of Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Wagon-Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in brakes, and has more particular relation to brakes for vehicles which are automatically set by the action of the draft-animals.

The invention consists of certain novel constructions, combinations, and arrangements of parts, all of which will be hereinafter more particularly set forth and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 represents a top plan view of my improved running-gear for vehicles. Fig. 2 represents an enlarged detail perspective view of the middle portion of the front axle of a draft-equalizer, the locking-pin being removed. Fig. 3 represents a detail perspective view of said locking-pin. Fig. 4 is a detail sectional view on the line *x x* of Fig. 1.

1 in the drawings represents the tongue; 2, the main doubletree; 3 3, the singletrees; 4 4, the pivoted levers of the draft-equalizer, and 5 5 the pivoted brake-levers. The said levers 4 4 are pivotally connected at their meeting ends by a casting 6 and also pivotally connected to the forward axle 7 by a pivoted brace 8. The outer ends of said levers 4 4 are connected to the singletrees 3 3 by pivoted links 9, which pass through suitable guiding-staples 10, mounted upon the under side of the doubletree 2. Said casting 6 is provided with a rearwardly-extending rod 11, which passes through a suitably-apertured frame on the axle 7, a coil-spring 12 surrounding said rod, so that its opposite ends bear against said frame and the casting 6 to normally press the latter forward, and thus hold said rod 11 in its forward position. The rear end of said rod 11 is pivotally connected to a rod 13, which slides in a suitable aperture 14, formed in the rear axle. A casting 15 is loosely mounted upon said rod 13, and is provided with a thumb-screw 16, whereby it may be adjusted to any desired position upon said rod, so as to increase or decrease the tension of the brake-levers, as hereinafter described. Said brake-levers 5 are pivotally mounted upon the frame of the running-gear and have their respective ends pivotally connected to the casting 15, whereby they are operated upon the movement of said casting by rod 13. The apertured ends of said levers 5 are provided with suitable brake-shoes 17, adapted to contact with the peripheries of the wheels when said levers are operated.

The rear end of the tongue 1 is provided with a vertical aperture 18, which coincides in position with a keyhole-aperture 19, formed in an arm 20, which latter is secured to the front axle 7. A locking-pin 21 is formed with a contracted portion 22 and a head 23, so that it may be slipped through the apertures 18 and 19 and locked in position therein by pressing the contracted portion 22 into the narrow portion of the keyhole-aperture. A coil-spring 24 is preferably mounted upon the pin 21, so as to engage the upper side of the arm 20 and the under side of the head 23 to force the pin normally upward. The location of the apertures 18 and 19 is such that the pin 21 may be passed through the same, either in front of or to the rear of the casting 6, and thus hold the levers 4 in either of their positions with the brakes either on or off, as desired.

It will be observed from the foregoing description that the draft-animals attached to the singletree 3 upon starting forward will draw the ends of the levers 4 forward until they contact with the ends of the doubletree 2, when the latter will act in its usual capacity. As the movement of the levers 4 is against the tension of the coil-spring 12, they act as a draft-equalizer to prevent any sudden shock or concussion on the draft-animals starting suddenly forward. The coil-spring 12 is constructed of very heavy material, so that its tension will be sufficient to effectively apply the brakes when the forward draft upon the levers 4 is relaxed, as by the starting of the draft-animals. When said pressure is relaxed again, the device moves forward and, if so desired, the pin 21 may be inserted in the apertures 18 and 19 behind said casting, and thus prevent the team from starting forward again

until said pin is removed. The application of the brake is automatic and takes place whenever the pressure upon the pivoted levers 4 ceases.

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

1. The combination with the running-gear of a vehicle, of pivoted brake-levers mounted thereon, a rod connected to said levers, a spring connecting said rod and frame to the running-gear for normally forcing the levers into contact with the wheels, and pivoted levers connected to said rod and the singletrees, substantially as described.

2. In a brake apparatus for vehicles, the combination with the running-gear proper, of pivoted brake-levers mounted thereon, a sliding rod engaging said levers, a spring connecting said rod and the frame of the running-gear for normally forcing the brake-levers in contact with the wheels, pivoted levers mounted upon the frame and connected to said sliding rod for operating it against the tension of the spring, a doubletree pivotally mounted upon the tongue, singletrees, and means connecting the same to the last-mentioned levers and the doubletree, substantially as described.

3. In a brake apparatus for vehicles, the combination of the running-gear proper and brake-levers, of a sliding spring-pressed rod for operating said brake-levers, pivoted levers mounted upon the frame and connected respectively to said rod, singletrees connected to said latter levers, and a locking-pin for locking said latter levers in either of their adjusted positions to hold the brakes on or off, substantially as described.

4. In a brake apparatus for vehicles, the combination with the running-gear proper, of pivoted brake-levers mounted thereon, shoes mounted on said levers, a casting connecting said levers, a sliding rod connected to said casting, a spring connecting said rod to the frame, whereby the brake-shoes are normally applied to the wheels, pivoted levers mounted upon the frame, a casting connecting these latter levers together and to the sliding rod, and singletrees connected to said latter levers, substantially as described.

5. In a brake apparatus for vehicles, the combination with the running-gear proper, of pivoted levers mounted upon the frame, a doubletree pivotally mounted upon the tongue, links connected to the respective apertured ends of the pivoted levers and passing through guiding-staples upon the doubletree, singletrees connected to the outer ends of said links, a sliding spring-pressed rod connected to the pivoted levers, and brake-levers connected to said rod, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

AARON BIRDWELL CHITWOOD.

Witnesses:
J. S. ODOM,
JOHN FEETER.