

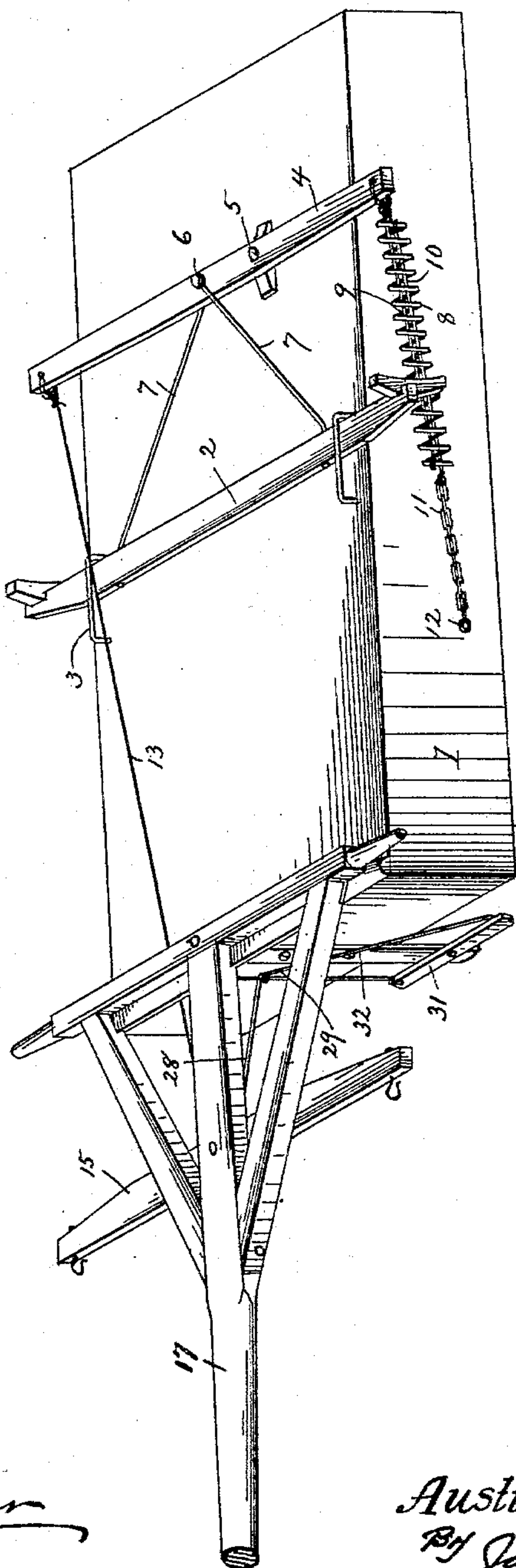
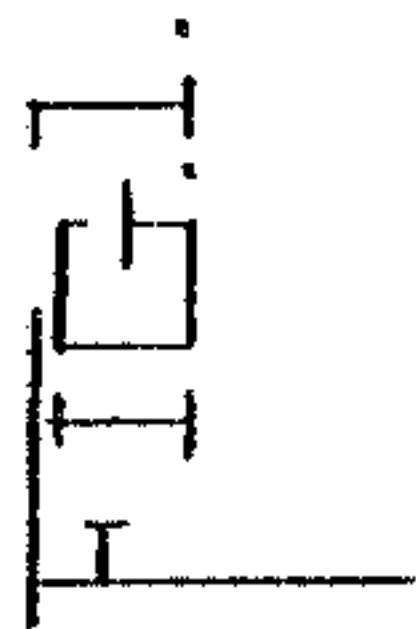
(No Model.)

2 Sheets—Sheet 1.

A. McGLATHERY.  
AUTOMATIC BRAKE.

No. 598,000.

Patented Jan. 25, 1898.



*WITNESSES*

Saml R. Turner  
Am. Captain

*INVENTOR*

Austin M. Glathery.  
By John Hedderburn  
Attorney

(No Model.)

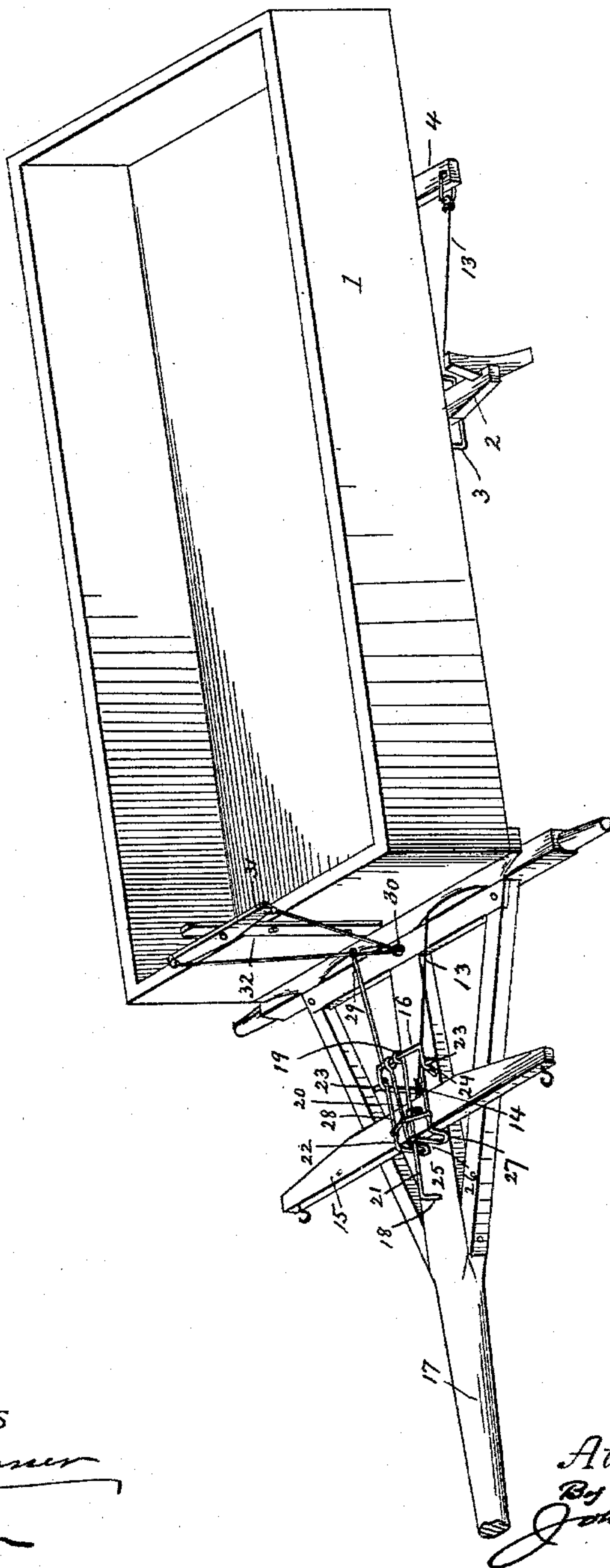
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FIG. 2.



WITNESSES

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INVENTOR

*Austin M. Glathery.*  
*By John Hetherburn*  
Attorney



# UNITED STATES PATENT OFFICE.

AUSTIN McGLATHERY, OF NORMAN, OKLAHOMA TERRITORY.

## AUTOMATIC BRAKE.

SPECIFICATION forming part of Letters Patent No. 598,000, dated January 25, 1898.

Application filed March 18, 1897. Serial No. 628,118. (No model.)

*To all whom it may concern:*

Be it known that I, AUSTIN McGLATHERY, a citizen of the United States, residing at Norman, in the county of Cleveland and Territory of Oklahoma, have invented certain new and useful Improvements in Automatic 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 automatic brakes for wagons and other vehicles, the object being to provide, in connection with a suitable brake, means whereby the brake-shoes may be automatically set in descending grades, means also being provided whereby the brakes may be locked in engagement with the wheels.

The detailed objects and advantages of the invention will appear in the course of the subjoined description.

The invention consists in a brake embodying certain novel features and details of construction and relative disposition of parts, as hereinafter fully described, illustrated in the drawings, and incorporated in the claims hereto appended.

In the accompanying drawings, Figure 1 is a reverse perspective view showing a wagon-body and the improved brake mechanism applied thereto. Fig. 2 is a perspective view of the front end of the body, showing also a portion of the tongue, the whiffletree, and the means for locking said whiffletree either in its rearward or forward position.

Similar numerals of reference designate corresponding parts in the figures of the drawings.

For the purpose of illustrating the present improvements I have shown the same as applied to a wagon-body, although it will be apparent as the description proceeds that said improvements may be applied to any vehicle.

Referring to the drawings, 1 designates an ordinary wagon-body, and 2 a transverse brake-beam carrying brake-shoes at its ends adapted to be brought into contact with the wheels, the brake-beam being shown as mounted adjacent to its ends in longitudinally-elongated hangers 3, which permit said

brake-beam to move transversely or in a direction lengthwise of the wagon-body.

4 designates a lever which is fulcrumed at 5 intermediate its ends on the bottom of the wagon-body, the fulcrum 5 being at one side of the center of the wagon-body. Connected pivotally to said lever 4, at the point 6, which is approximately in the longitudinal center of the wagon-body, are the convergent ends of a pair of braces 7, which connect at their opposite ends to the brake-beam 2, whereby as the lever 4 is vibrated the brake-beam 2 is moved so as to throw the brake-shoes into and out of engagement with the wheels.

Connected to one end of the lever 4 (the shorter end) is a spring 8. This spring is shown to be of spiral form and has passing therethrough a pair of rods or connections 9 and 10, the connection 9 being secured at one end to the end of the lever 4 and at its opposite end to the farther extremity of the coiled spring 8. The connection 10 is attached at one end to the opposite end of the coiled spring 8 and at its other end to a chain 11 or other flexible connection, which is in turn secured at its opposite end to a stud 12 or other projection on the side of the wagon-body. The spring is preferably located at one side of the wagon and serves to vibrate the lever 4 in a direction which will move the brake-lever and the brake-shoes toward the wheels. Connected to the opposite end of the lever 4 is a chain, rope, or cable or other suitable flexible connection 13. This connection extends forward and passes under the bolster of the wagon and connects at its forward end to an eye 14 on the whiffletree 15, the eye 14 being located, preferably, centrally of the whiffletree and the whiffletree being movable forward and backward, whereby the connection 13 may be drawn upon for releasing the brake-shoes.

16 designates an inverted-U-shaped bracket which is secured to the upper side of the wagon-tongue 17 and which, in addition to its function as a bracket, also constitutes a rear stop for limiting the backward movement of the whiffletree.

18 designates a guide or keeper consisting of a rod superposed above the tongue and having its forward end turned downward and



secured to the tongue, while its rear end is secured to the upper horizontal or connecting portion 19 of the bracket 16. The whiffletree is adapted to slide back and forth within said keeper and is provided with an eye or staple 20, which embraces the horizontal portion 21 of the keeper, thus preventing endwise movement of the whiffletree, while permitting said whiffletree to slide in a forward or backward direction.

22 designates a latch which is pivotally connected to the bracket 16, said latch having oppositely-projecting pivots or trunnions 23, which enter and bear in eyes 24 on the bracket 16. The free or swinging end 25 of the latch is made in the shape of the letter W, the central portion 26 thereof being in the form of an open loop adapted to embrace the horizontal portion of the guide or keeper 18 and the depending portions 27 of the free end of the latch being adapted to engage either in front of the whiffletree 15 or in rear thereof, according to necessity. Connected to the latch 22 is a lever-arm 28, which extends backward and is attached at its rear end to a chain or other flexible connection 29, which passes through an eye 30 at the heel end of the tongue 17 and comprises upwardly-diverging portions which connect at their extremities to the opposite ends of a foot or operating lever 31. This lever 31 is fulcrumed at a suitable point on a standard 32 at the front of the wagon-body, so that the driver may readily place his foot upon either end of said lever for rocking the same in the desired direction. When the lever 31 is rocked in one direction, the connection 30 will depress the lever-arm of the latch and rock the free end of said latch upward, so as to permit the whiffletree to move back and forth. When the lever 31 is vibrated in the opposite direction, the connection 30 will elevate the lever-arm of the latch and force the free end of the latch downward, so as to engage either in front of or in rear of the whiffletree.

From the foregoing description it will be seen that when the latch 22 is lifted the whiffletree 15 is capable of moving back and forth, so that when draft is removed from the whiffletree the brakes will be automatically applied. In case the animals should attempt to run off the free end of the latch may be thrown downward in front of the whiffletree, thus preventing the animals from moving the whiffletree forward and releasing the brakes. In ascending inclines the latch may be thrown downward behind the whiffletree, so as to prevent said whiffletree from being drawn backward, which would result in applying the brakes. The mechanism described is extremely simple and is under the immediate and full control of the driver.

It will of course be understood that the brake and the several parts thereof hereinbefore described are susceptible of changes in the form, proportion, and minor details of

construction, which may accordingly be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a vehicle-brake, of a lever fulcrumed intermediate its ends and connected to the brake-beam, a spring connected to one end of said lever, a movable whiffletree, and a connection between said whiffletree and the opposite end of said lever, whereby the brakes are automatically applied when the draft ceases, substantially as described.

2. The combination with a vehicle-brake, of a lever fulcrumed intermediate its ends and connected to said brake, a coiled spring acting on one end of said lever, a chain or other flexible device at one end of said spring and connected to the wagon-body, a connection between said chain and the farther end of said spring, a second connection between the lever and the reverse end of said spring, a whiffletree movable back and forth on the tongue, and a connection between said whiffletree and lever, substantially as described.

3. In a vehicle-brake, the combination with a whiffletree movable back and forth on the tongue and having connection with the brake mechanism, of a guide for said whiffletree, a pivoted latch fulcrumed intermediate its ends for engaging and holding said whiffletree either in its forward or backward position, an operating-lever fulcrumed on the body of the vehicle, and a connection between said lever and one end of said latch, substantially as and for the purpose specified.

4. In a vehicle-brake, the combination with a whiffletree movable back and forth on the tongue, of a guide extending above said whiffletree, an eye on the whiffletree embracing said guide, connections between said whiffletree and the brake mechanism, a latch fulcrumed intermediate its ends for engaging and holding said whiffletree, and an operating-lever having connection with the rear end of said latch, substantially as described.

5. In a vehicle-brake, the combination with the brake mechanism, of a whiffletree movable back and forth on the tongue, a connection between said whiffletree and brake mechanism, a guide or keeper in the form of a rod extending longitudinally of and secured to the tongue and extending over the whiffletree, an eye or staple on the whiffletree embracing said guide, stops for limiting the forward and backward movements of said whiffletree, a latch pivoted intermediate its ends for engaging and holding the whiffletree, an operating-lever, and a connection between said lever and the rear end of said latch, substantially as described.

6. In a vehicle, the combination with the brake mechanism, of a whiffletree movable



back and forth on the tongue, a connection  
between said whiffletree and brake mechanism,  
a pivoted latch having its free end deflected  
to engage and hold the whiffletree, a  
5 lever-arm on said latch, an operating-lever  
fulcrumed at an intermediate point, and a  
flexible connection attached at its ends to the  
opposite ends of the operating-lever and passing  
at an intermediate point through a guiding-  
10 eye, said connection being attached to

the lever-arm of the latch, whereby the latter  
may be operated, substantially as described.

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

AUSTIN McGLATHERY.

Witnesses:

B. F. WILLIAMS,

A. T. ROSS.