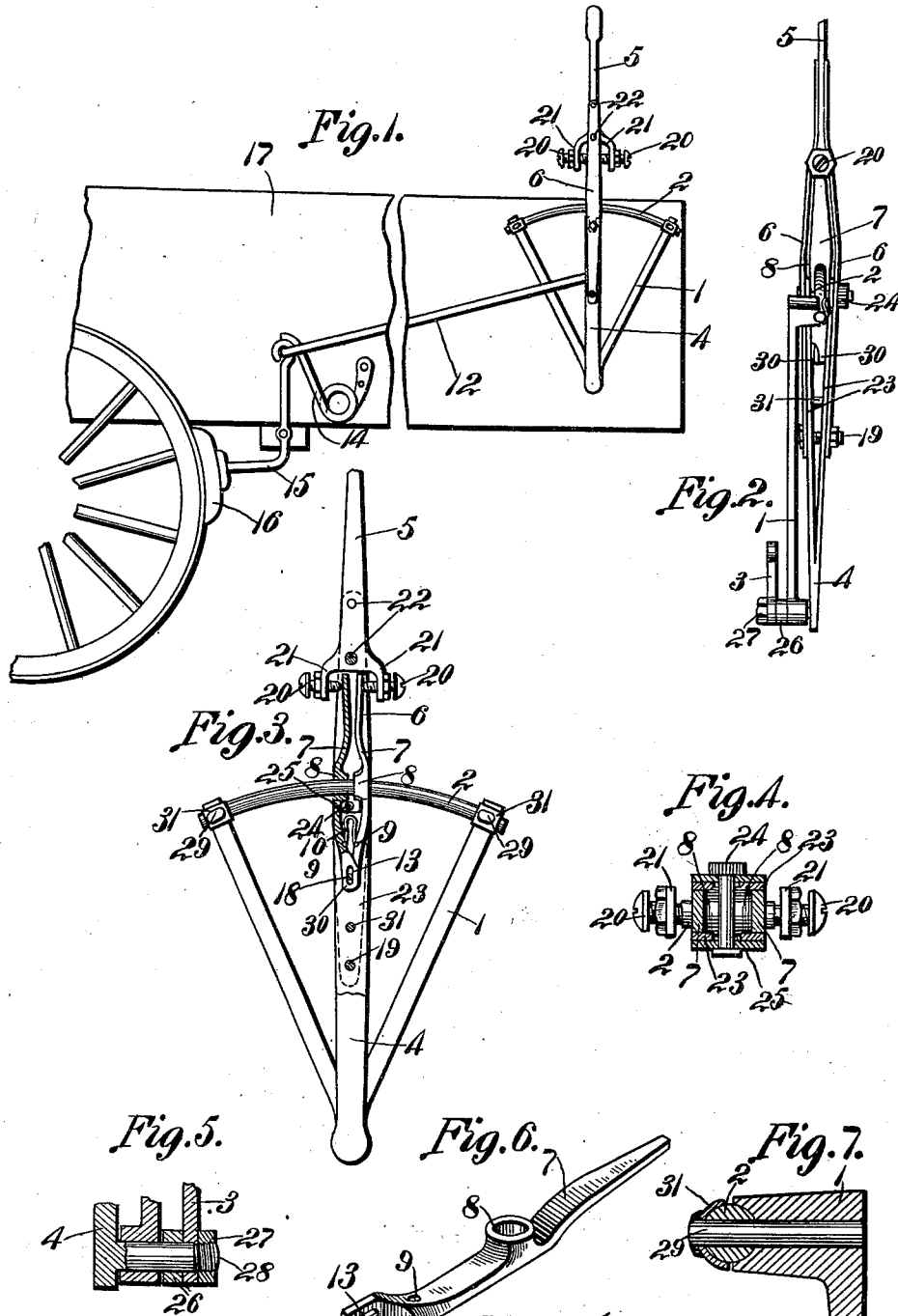


J. M. CUSTER.
LOCKING LEVER.
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1,043,206.

Patented Nov. 5, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH M. CUSTER, OF COPPER HILL, VIRGINIA.

LOCKING-LEVER.

1,043,206.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed December 12, 1911. Serial No. 665,375.

To all whom it may concern:

Be it known that I, JOSEPH M. CUSTER, a citizen of the United States, residing at Copper Hill, in the county of Floyd and State of Virginia, have invented a new and useful Locking-Lever, of which the following is a specification.

This invention relates to locking levers, such as are employed in connection with wagon brakes and which are adapted to cooperate with an arcuate rod by means of binding members to lock the lever at any position to which it is swung.

The object of the present invention is to provide a lever of this character embodying a novel construction and combination of parts to adapt it in an efficient manner for the purposes to which it is designed, and which is simple and durable in construction.

The invention is illustrated in the accompanying drawings, wherein similar reference characters indicate similar parts, and wherein—

Figure 1 is a side elevation of the lever as applied to a wagon. Fig. 2 is an end elevation of the lever on an enlarged scale, parts broken away. Fig. 3 is a side elevation of the lever, parts being broken away. Fig. 4 is an enlarged sectional detail of the lever. Fig. 5 is a sectional detail taken through the lower end of the lever, on an enlarged scale. Fig. 6 is a perspective view of one of the binding members. Fig. 7 is an enlarged sectional detail taken through the upper end of one arm of the frame for the lever.

Referring in detail to the drawings, there is designated by the numeral 1 a V-shaped frame, and an arcuate rod 2 is secured to the upper end of the V-shaped frame 1 by means of securing members 29 projecting from the upper ends of the arms of the V-shaped frame and passing through the ends of the arcuate rod 2. A curved washer 31 is arranged on the outer end of each of the securing members 29 and the outer ends of the members 29 are riveted to clamp the washers 31 securely against the ends of the rod 2.

The lever in its essentials embodies a pair of levers 4 and 5, the lever 4 being of V-shape having the arms 23 and the lever 5 forming the hand-lever and having tongues 6 overlapping the arms 23 of the V-shaped lever 4. These tongues 6 pass over the respective sides of the rod 2 and have their lower ends pivoted to the arm 23 of the

lever 4 by means of a bolt, or other securing member 19, passed through the ends of the tongues 6 and the arms 23. The upper ends of the arms 23 terminate slightly below the arcuate rod 2 and have notches 25 in the upper ends thereof, and a bolt or other securing member 24 is mounted in the tongues 6 and extends through the notches 25 to permit the lever 5 to swing with respect to the lever 4. The tongues 6 are preferably secured to the lever 5 by means of rivets or other securing members 22 which engage the upper ends of the tongues 6 overlapping the lower end of the lever 5 to the said lever. A stub shaft 28 projects from the lower end of the lever 4 and is journaled through the lower end of the frame 1 to pivot the lever concentric with the arcuate rod 2, and a short arm 3 is secured against rotation on the outer end of the stub shaft 28 by means of a key (not shown) or in any other suitable manner. A washer 26 is interposed between the arm 3 and the frame 1, and a nut 27 screw-threaded on the outer end of the stub-shaft 28 retains the relative parts in position.

A pair of binding members 7 are arranged between the arms 23 of the lever 4 and have eyes 8 at their intermediate portions cooperating with the arcuate rod 2, the said rod passing through the said eyes, and the upper ends of the said members extend upwardly between the tongues. These members 7 are provided at their lower ends with overlapped ears 30 having elongated longitudinal slots 13 therein, and a double leaf spring 10 is disposed between the members 7 and has the extremities thereof bent outwardly to engage in sockets 9 in the lower ends of the members 7, the said spring being compressibly disposed between the said members to give an outward tension thereto. The lever 5 is provided with opposite depending ears 21 overhanging the space between the tongues 6, and adjustable stops 20 are carried by the said ears and are adapted to strike the upper ends of the binding members 7 upon the lever 5 being swung. The arms 23 of the lever 4 are also secured together above the bolt 19 by means of a rivet 31 or the like.

As shown in Fig. 1, the lever is applied to a wagon, the wagon box being designated by the numeral 17, the brake shoe lever by the numeral 15 carrying the shoe 16, and a

suitable spring 14 bearing against the brake shoe lever 15 to normally swing the brake shoe away from the rear wheel of the wagon. The rivet 31 is connected to the brake shoe lever 15 by means of the connecting rod 12, whereby upon swinging the lever 5 the brake shoe may be swung to and from the rear wheel of the wagon. By swinging the lever 5 it will be noted that the stops 20 strike the respective binding members 7 to free the respective binding members and permit the lever 4 to be swung in the proper direction. The lever 4 is locked in any position to which it is swung by means of the binding members 7 which are spring-pressed to engage the rod 2, and the said binding members being pivoted to the lever 4 and having a longitudinal movement therein as permitted by the slots 13 to securely bind the lever 4 against swinging. In this case, therefore, it will be impossible for the lever 4 to be swung without the application of force to the lever 5 to bring the respective stop 20 into contact with the binding member which retains the lever 4 in position against reverse movement, it being understood that the oppositely disposed binding member 7 locks the lever in the respective opposite direction. It will thus be seen that the brake shoe lever 15 is positively held in any position to which it is swung by means of the binding member 7 engaging the arcuate rod 2, and that by the application of force to the lever 5 the lever 4 may be readily swung to also swing the brake shoe lever 15.

This invention is characterized by simplicity in construction, thereby rendering the same inexpensive to manufacture, by the compactness of the relative parts to attain the objects sought in an efficient manner, and by the convenience in the use thereof.

Although this device is shown and described as being applied to a wagon, it is understood that the same may be utilized for various purposes, as, for example, in automobiles to operate the brake thereof, in which event it is preferable to connect the

connecting rod or other member with the short arm 3.

What is claimed is:

1. In combination, an arcuate rod, a V-shaped lever pivoted concentric therewith, a hand lever having tongues overlapping the arms of the V-shaped lever over the respective sides of the rod and pivoted to the said arms, a pair of binding members arranged between the arms of the V-shaped lever and having their lower ends slidably and pivotally engaged between the arms of the V-shaped lever and having eyes intermediate their ends through which the said rod passes, a compression spring disposed between the binding members, said hand lever having a pair of ears overhanging the space between the tongues, and adjustable stops carried by the ears and designed to strike the upper ends of the respective binding members to free the same when the hand lever is swung.

2. In combination, an arcuate rod, a V-shaped lever pivoted concentric therewith, a hand lever having tongues overlapping the arms of the V-shaped lever over the respective sides of the said rod and pivoted to the said arms, a pair of binding members arranged between the arms of the V-shaped lever and having overlapped slotted ears at their lower ends and eyes intermediate the ends thereof through which the said rod passes, a member secured to the arms of the V-shaped lever and passing through the said slots in said ears, a compression spring arranged between the binding members, and a pair of adjustable stops carried by the hand lever and adapted to strike the upper ends of the respective binding members to free the respective binding members when the hand lever is swung.

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

JOSEPH M. CUSTER.

Witnesses:

G. L. REED,
H. L. STUMP.