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Patented Feb. 5, 1901.

J. M. ADKINS & W. G. BLAIR.  
VEHICLE.

(Application filed Sept. 8, 1900.)

(No Model.)

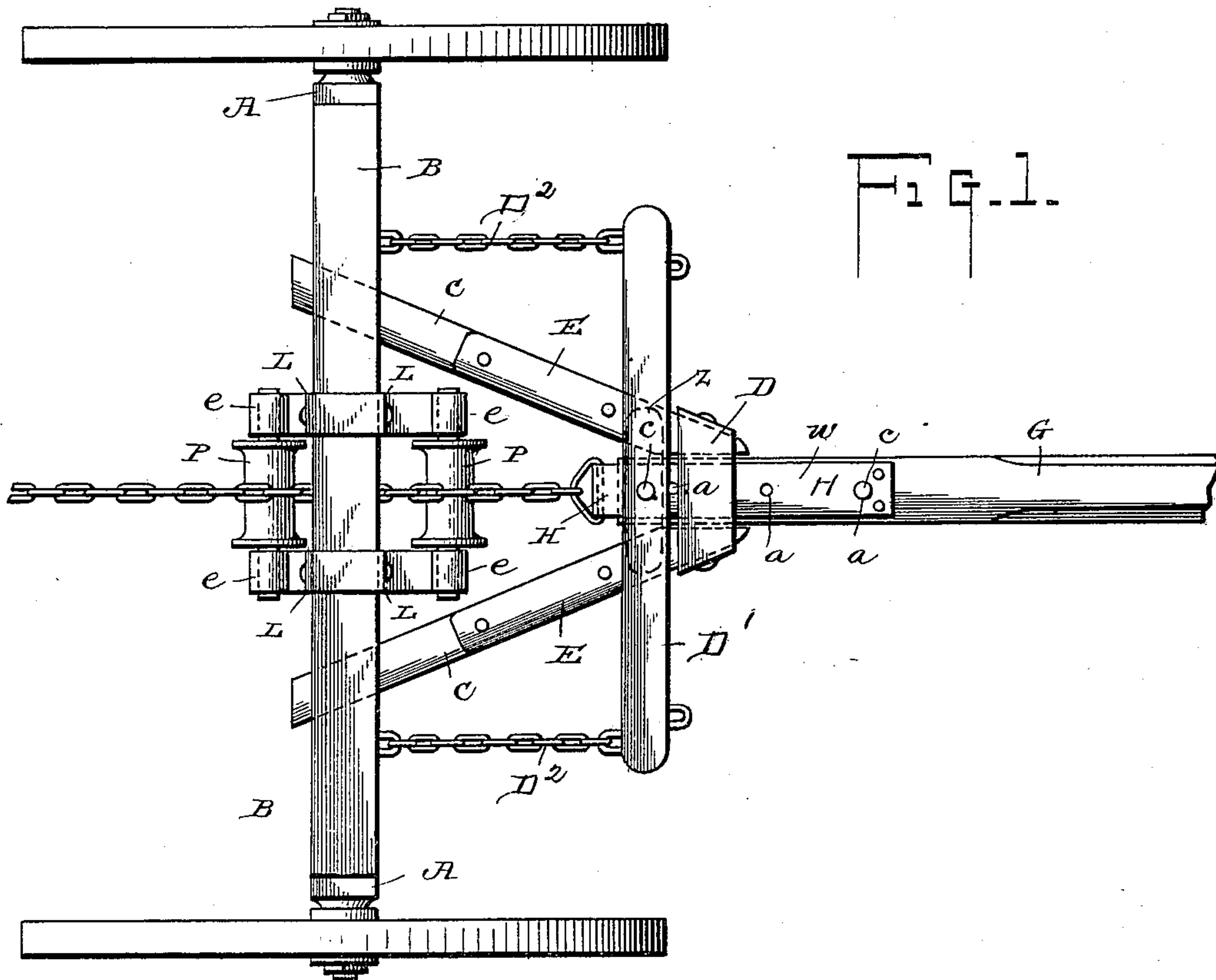


FIG. 1.

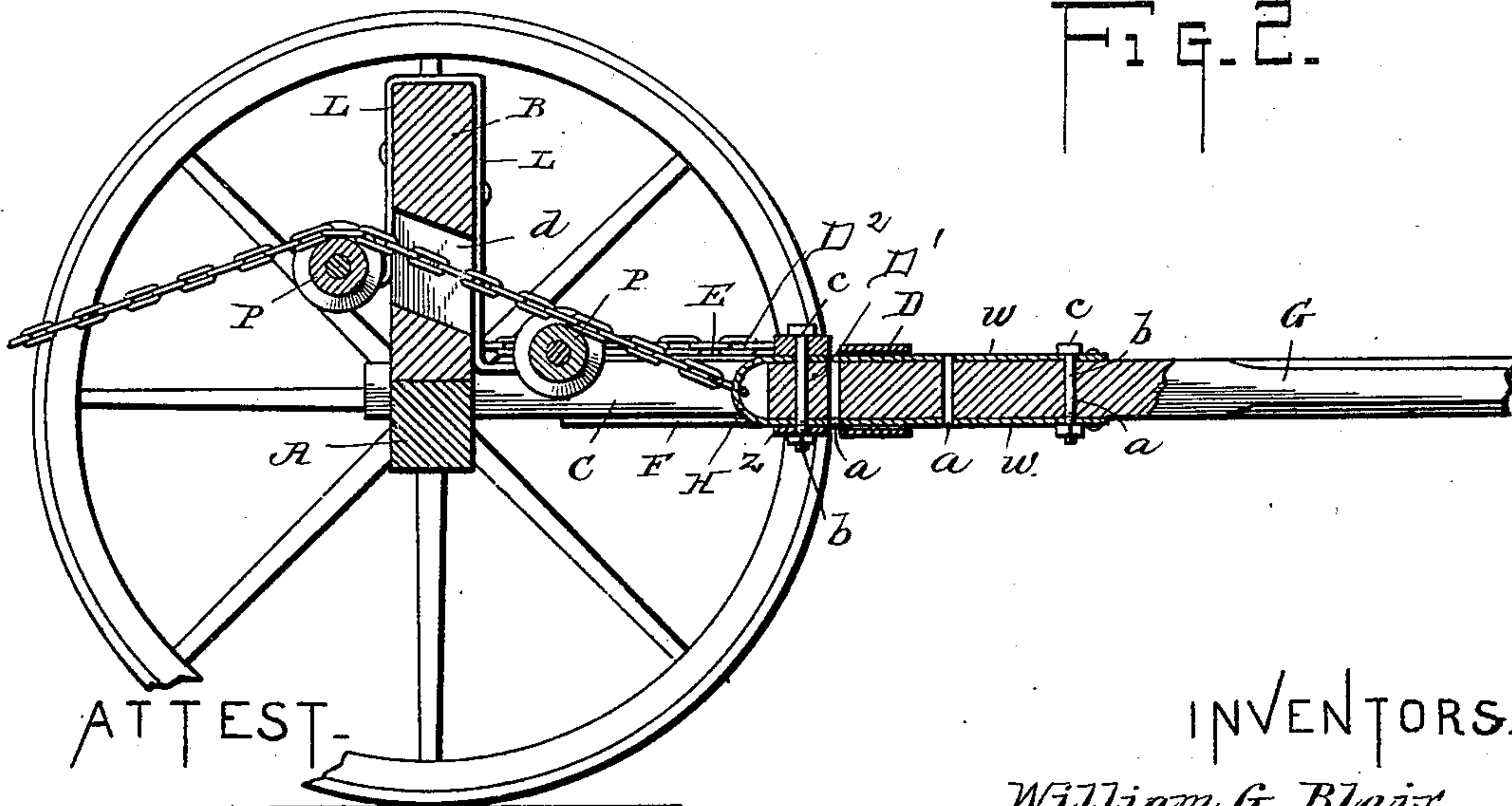


FIG. 2.

ATTEST-

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# UNITED STATES PATENT OFFICE.

JESSE M. ADKINS AND WILLIAM G. BLAIR, OF BLAIR'S MILLS, KENTUCKY.

## VEHICLE.

SPECIFICATION forming part of Letters Patent No. 667,280, dated February 5, 1901.

Application filed September 8, 1900. Serial No. 29,439. (No model.)

*To all whom it may concern:*

Be it known that we, JESSE M. ADKINS and WILLIAM GREEN BLAIR, citizens of the United States, residing at Blair's Mills, in the county of Morgan and State of Kentucky, have made a certain new and useful Invention in Vehicles; and we 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view of our invention as applied. Fig. 2 is a section on the line *x x*, Fig. 1.

The invention relates to logging carts or sleds; and it consists in the novel construction and combinations of devices, as hereinafter set forth. These vehicles are used to drag heavy logs and timbers, the heavy end of the log being chained to the sustaining bolster or bunk, which is supported by the axle, the axle and bunk being usually firmly and rigidly secured together. The strain of the draft is, therefore, on the bunk; and it is one of the objects of this invention to transfer this strain in the main to the tongue, which is given a sliding character to further relieve the tension and to facilitate the action of the draft-animals, oxen being usually employed.

In the accompanying drawings the letter A designates the axle, and B the bunk or sustaining-timber mounted thereon and secured thereto.

C C are the hounds, secured to the axle and strapped together at their front ends, a loop connection or strap D being provided. Plates E and F are usually secured on the upper and lower surfaces of these hounds to serve as wear-plates.

G represents the tongue, which is properly formed at its rear end to have a sliding motion between the front ends of the hounds. The tongue is provided with a wear and draft strap H, which is usually in loop form, its upper and lower branches being secured to the upper and lower surfaces of the rear end of the tongue, the draft-loop H extending in

rear thereof, or the loop may be made separate and may be secured to the straps *w* or to the rear end of the tongue in any suitable and strong manner. Bolt-holes are provided at *a a* through the straps and tongue for the reception of the front and rear stop-bolts *b b*, there being a series of such bolt-holes in order to provide for some adjustment of the stop-bolts, so that the amount of sliding motion may be made to suit the requirements of the case. The stop-bolts have heads *c c* of sufficient size to engage the loop or connection-strap D of the hounds.

Through the middle portion of the bunk or sustaining-timber B is formed an opening or way *d*, and at the sides of said opening or way strong sustaining-irons or bracket-straps L L are secured to the bunk, said irons or straps passing over the top of the bunk and extending downward in front and in rear. The front and rear branches of each bracket-strap or iron L terminate, respectively, in bearings *e e* for the journals of the pulleys P P, which are in the median line in front and in rear of the opening or way *d*. The rear pulley is arranged at a higher level than the forward pulley in order to provide for the rise of the end of the log to which the logging-chain is attached, this chain passing from the log up over the rear pulley through the opening or way *d* of the bunk and over the front pulley to the loop H, to which it is secured.

When a log is to be moved, the tongue is moved back in its ways between the hounds to the rear limit, and the chain is then secured to the end of the log in the usual manner. The team of oxen being started, the yoke to which the tongue is attached sustains the draft which pulls the tongue forward, and at the same time pulling forward the chain causes the end of the log to which the chain is attached to rise in position for movement. Should the team stop or be caused to back for any reason, the tongue will be drawn to the rear by the weight of the log, which will descend to the ground, thus relieving the draft-animals and the cart of all strain until the hauling is resumed. Should the log start to move forward on the team, it will drop to the ground at once and remain there until started again by the draft.



When horses are used for draft, the tongues should be provided with a doubletree attached thereto.

The rear end of the tongue is provided with  
5 a cross-bar  $z$ , which extends on each side sufficiently to engage the under wear-plates of the hounds, or it may extend sufficiently on each side to form a whiffletree for horses.

$D'$  is the doubletree, bolted to the tongue at  
10  $c$  and connected with the bunk or axle by chains  $D^2$  at each end thereof, which chains are drawn taut when the tongue has arrived at the limit of its forward movement.

Having described this invention, what we  
15 claim, and desire to secure by Letters Patent, is—

1. A log cart or vehicle, having a sliding tongue between its hounds, pulleys secured to the sustaining-bunk in front and rear, a log-  
20 ging-chain connected to the rear end of the tongue, and passing over said pulleys, a doubletree secured to said tongue, and chains or cables connecting said doubletree and the cart proper, substantially as specified.

25 2. A log cart or vehicle, having a sliding tongue between its hounds, a sustaining timber or bunk secured to the axle and having an opening or way in its middle portion, front and rear pulleys secured to said bunk, means  
30 for connecting a logging-chain to the rear end of said tongue, a doubletree secured to said tongue, and chains or cables connecting said doubletree and the cart proper, substantially as specified.

35 3. In a log cart or vehicle, the combination

with the hounds, and their connecting strap-loop, of the slide-tongue, its stop-bolts, and draft-loop, the opening or way of the bunk, the front and rear pulleys thereof, the doubletree secured to said tongue and the chains or  
40 cables connecting said doubletree and the cart proper, substantially as specified.

4. In a log cart or vehicle, the combination with the bunk or sustaining-timber having a middle opening or way, of the sustaining-  
45 brackets extending over said bunk, and the front and rear pulleys, the hounds, their connecting-loop, a slide-tongue having means for attaching to its rear end, a logging-chain, a doubletree secured to said tongue, and chains  
50 or cables connecting said doubletree and the cart proper, substantially as specified.

5. In a log cart or vehicle, the combination with sustaining-brackets and pulleys for the logging-chain, of a slide-tongue between the  
55 hounds connected at their front ends, a cross-bar connected to the under side of the tongue, a strap-loop connected to the rear end of the tongue, for the attachment of said logging-chain, a doubletree secured to said tongue,  
60 and chains or cables connecting said doubletree and the cart proper, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

JESSE M. ADKINS.

W. G. BLAIR.

Witnesses:

ALEX WHITEAKER,

J. H. CARAWAY.