(No Model.)

A. KOEHLER.

WAGON TONGUE ATTACHING DEVICE.

No. 406,515. Patented July 9, 1889.

Fig. 1.

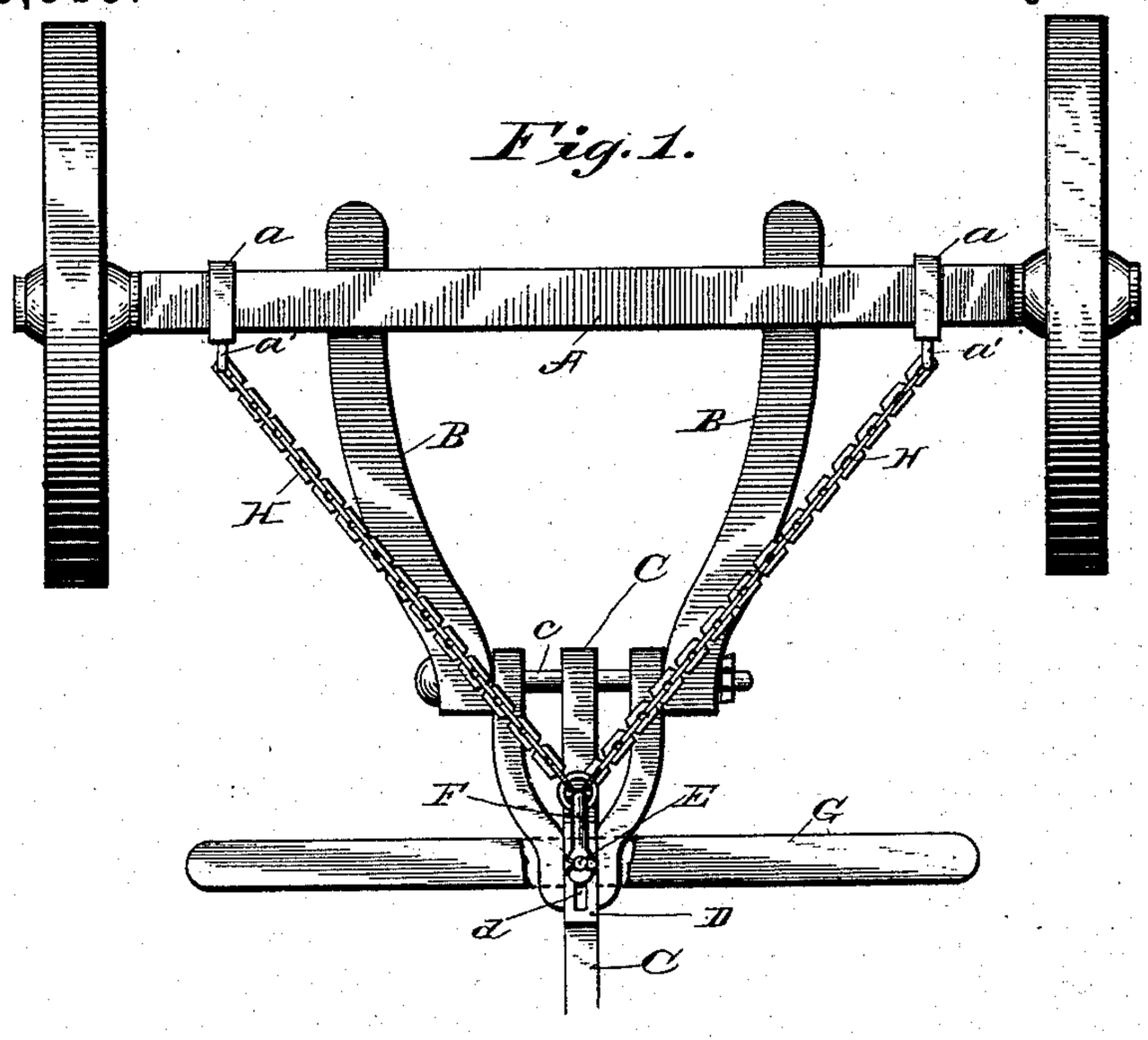


Fig. 2.

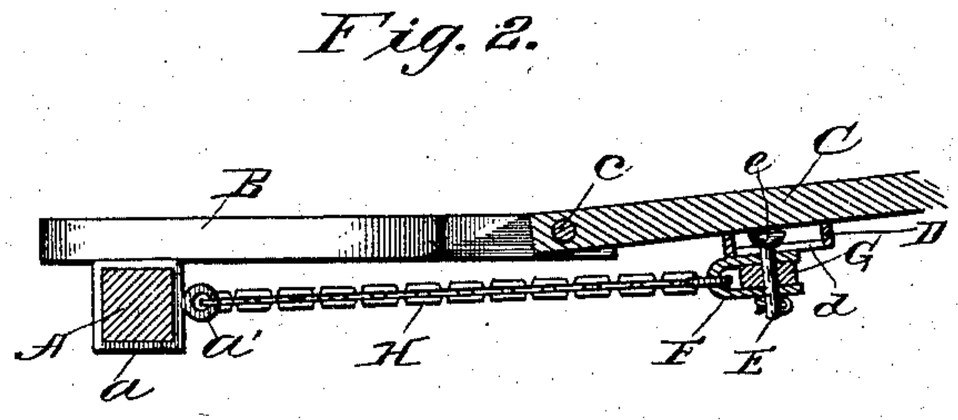
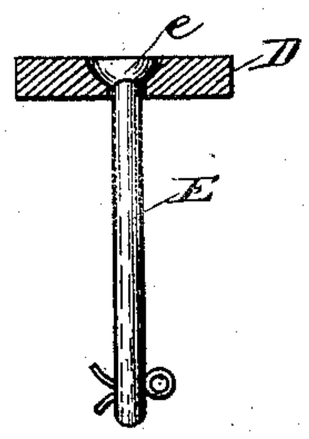


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT KOEHLER, OF FREEPORT, ILLINOIS.

WAGON-TONGUE-ATTACHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 406,515, dated July 9, 1889.

Application filed October 30, 1888. Serial No. 289,510. (No model.)

To all whom it may concern:

Be it known that I, ALBERT KOEHLER, a resident of Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Tongue-Attaching Devices; 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 pertains to make and use the same.

My invention relates to improvements in tongue-attaching devices for wagons, and is fully described and explained in this specification, and shown in the accompanying drawings, in which—

Figure 1 is a bottom plan of a wagon-tongue and axle connected by my improved device. Fig. 2 is a central longitudinal vertical section of the tongue with its connections. Fig. 3 is a transverse section of a king-bolt supporting-plate D, forming part of the device.

In the views, A is the front axle, of ordinary construction. B B are the hounds, attached thereto in the usual manner; and C is a tongue connected with the hounds by means of a transverse pivot *c*. On the under side of the tongue, at a suitable distance from the axle, is fastened a plate D, formed with a longitudinal slot *d*, the upper face of the plate being grooved out to receive the preferably hemispherical head *e* of a king-bolt E, which passes through the slot and is supported by the plate. The king-bolt E passes through a clevis F and through the doubletree G, which lies between the arms of the clevis, a suitable key being passed through the lower end of the king-bolt to hold up the clevis and doubletree. The clevis is connected with the axle by a chain H, the clevis being preferably passed through a ring at the center of the chain, and the outer ends of the chain being fastened to eyes *a'*, formed integrally with bands *a*, encircling the axle or fastened thereto by other suitable means.

From the foregoing description it is evident that the plate D supports the weight of the doubletree, but bears no part of the strain of draft, this being transmitted to the axle through the chain H. The slot in the plate D permits the king-bolt to move forward and back, and the chains, which are more or less elastic, take up a certain portion of the jar or shock incident upon starting. I have found in practice that when the doubletree is under heavy strain, as in drawing a wagon uphill or on a level, the king-bolt remains constantly at the forward limit of motion allowed to the chain, but that when the strain is removed, as in going downhill, the chains become slack and the king-bolt moves back in the slot *d*, thus bringing the doubletree and the singletrees attached to it nearer to the wagon and farther from the horses than they would be if the king-bolt were stationary, as in the ordinary construction. This is a material advantage attained by the use of the device.

Another advantage which this device possesses as compared with the ordinary king-bolt connection is that the doubletree is suspended below the tongue instead of above it, so that the strain of draft tends to raise the front end of the tongue and thereby take its weight entirely off the shoulders of the horses when drawing a load. That this makes an important difference in the labor of drawing a wagon is evident to any person at all familiar with the subject.

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

The combination, with the axle A, of the hounds B and tongue C, pivotally secured thereto, the slotted plate D, recessed upon its upper surface and secured to the lower surface of the tongue in front of the tongue-pivot, the bolt E, passing through the slot with its head resting in the recess, the doubletree-clevis F, supported by the bolt, and the chain H, fastened at its middle to the clevis and having its ends secured to the axle near the ends thereof, substantially as set forth.

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

ALBERT KOEHLER.

Witnesses:
R. H. WILES,
J. A. CRAIN.