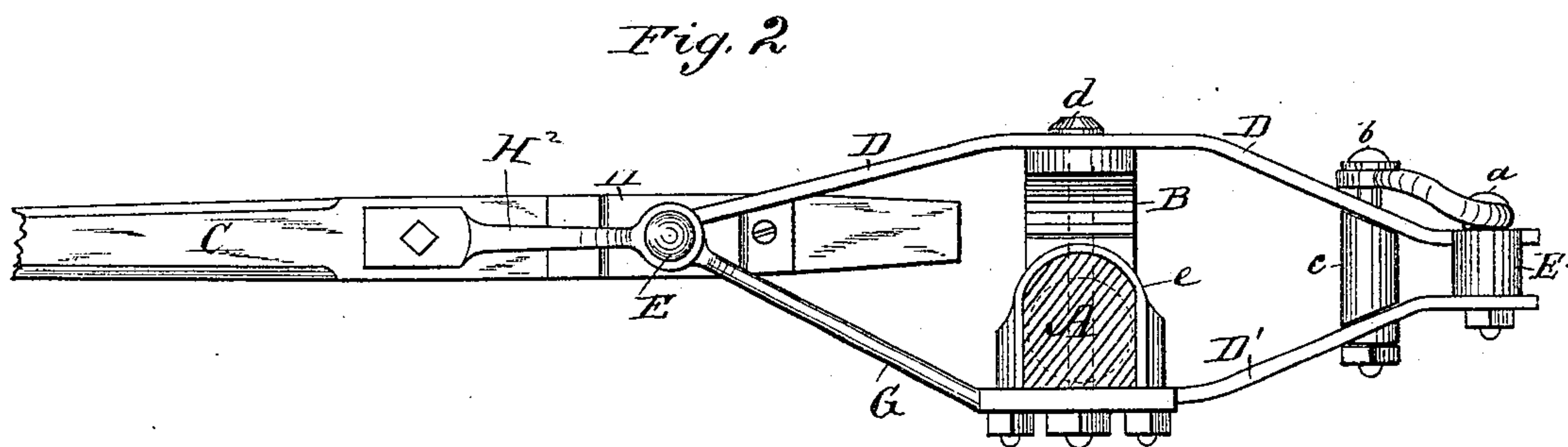
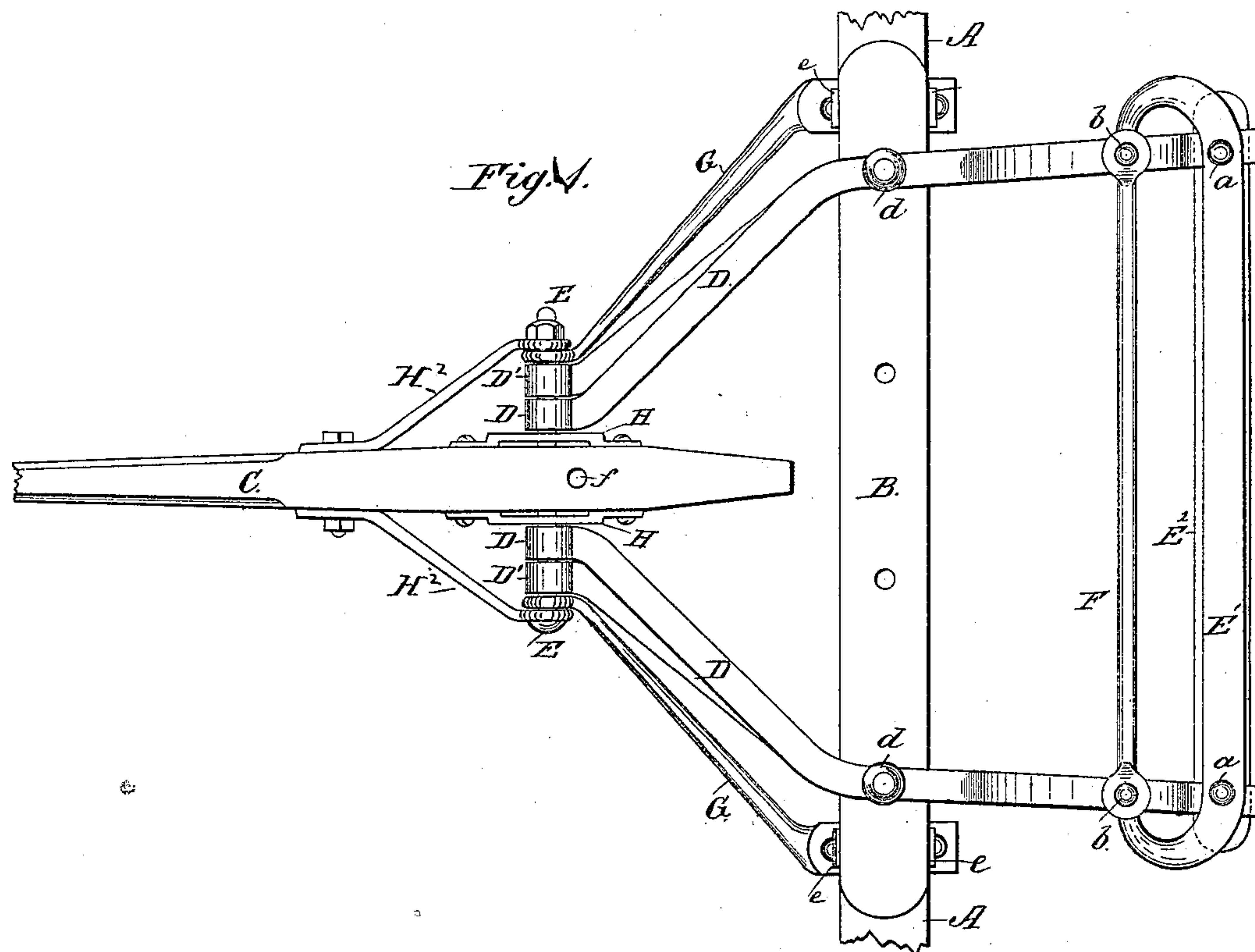


(No Model.)

A. J. HARPER.
WAGON HOUND.

No. 271,631.

Patented Feb. 6, 1883.



WITNESSES :

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UNITED STATES PATENT OFFICE.

ANDREW J. HARPER, OF UNIONVILLE CENTRE, OHIO.

WAGON-HOUND.

SPECIFICATION forming part of Letters Patent No. 271,631, dated February 6, 1883.

Application filed June 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANDREW JACKSON HARPER, of Unionville Centre, in the county of Union and State of Ohio, have invented a new and useful Improvement in Wagon-Hounds; and I do hereby declare that the following is full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view; and Fig. 2 is a side view, with the axle in section.

My invention relates to an improved wagon-hound designed to avoid all cutting of the axle and bolster, and thus secure greater strength in the same.

It consists in the peculiar arrangement of iron hound-bars with respect to the axle, the tongue, and its pivot-rod, as will be hereinafter fully described.

In the accompanying drawings, A represents the axle, B the bolster, and C the tongue.

D D D' D' are four iron hound-bars, each formed at their front ends with eyes, through which passes the pivot-bolt E that couples them to the tongue, which pivot-bolt is made much longer than usual. Two of these bars, D D, pass over the top of the bolster, and two of them, D' D', pass underneath the axle, which two sets then converge toward each other in the rear of the axle, and are bolted at *a a*, respectively, to the top and bottom of a wooden cross-bar, E². The same bolts, *a*, that secure the bars D and D' to the cross-bar E² also pass through and secure to the top of bar E² in a parallel position the metal bar E', the outer ends of which are turned in and connected to a parallel cross-bar, F, by bolts *b b*, that pass through bar F, the bent ends of E', the bars D and D', and intermediate spools, *c c*, that separate the upper and lower sets of bars D and D'. The bars D and D' cross the bolster and axle without any notch being cut in the same; but they are fastened to these parts by long vertical bolts *d d*, that pass entirely through the same.

Outside the bars D D' are other supple-

mental bars, G, which at their rear ends terminate at and are fastened to the axle by clips *e*, and at their front ends are provided with eyes that encircle the pivot-bolt of the tongue.

Between the hound-bars D and the tongue are interposed metal plates H of malleable cast-iron, which are fastened by screws or bolts to the tongue and constitute face or wear plates for said tongue in its vertical movement. The tongue transmits the draft-strain to the hounds through the long pivot-bolt E, and the latter is braced and enabled to resist bending by the bracket-irons H², which at one end are bolted to the tongue, and at the other are secured to the outer ends of the pivot-bolt E, thus stiffening the tongue and more strongly connecting it to the hound to resist the said draft-strain.

With the construction of wagon-hound described I am enabled to locate the connection of the double-tree at *f*, or a point in rear of the pivot-bolt for the tongue, thus taking off the weight from the horse's neck and securing a better point for the application of the draft-strain.

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

1. The combination, with the wagon-axle, bolster, and tongue, of the long pivot-bolt E, the hound-bars D D', hung upon said bolt, and extended above and below the said axle and bolster and bolted thereto, the wooden cross-bar E², parallel bar E', with curved ends, the cross-bar F, the bolts *a* and *b*, and the spools *c*, substantially as shown and described.

2. The combination, with the axle and the tongue, of the hound-bars D D' G, having eyes at their front ends, the long pivot-bolt E, passing through them, the face-plates H, and the bracket-irons H², fastened to the tongue at their front ends and connected at their rear ends to the long bolt outside the hound-bars, substantially as shown and described.

ANDREW JACKSON HARPER.

Witnesses:

T. B. BENTON,

THOMAS MUNDAY.