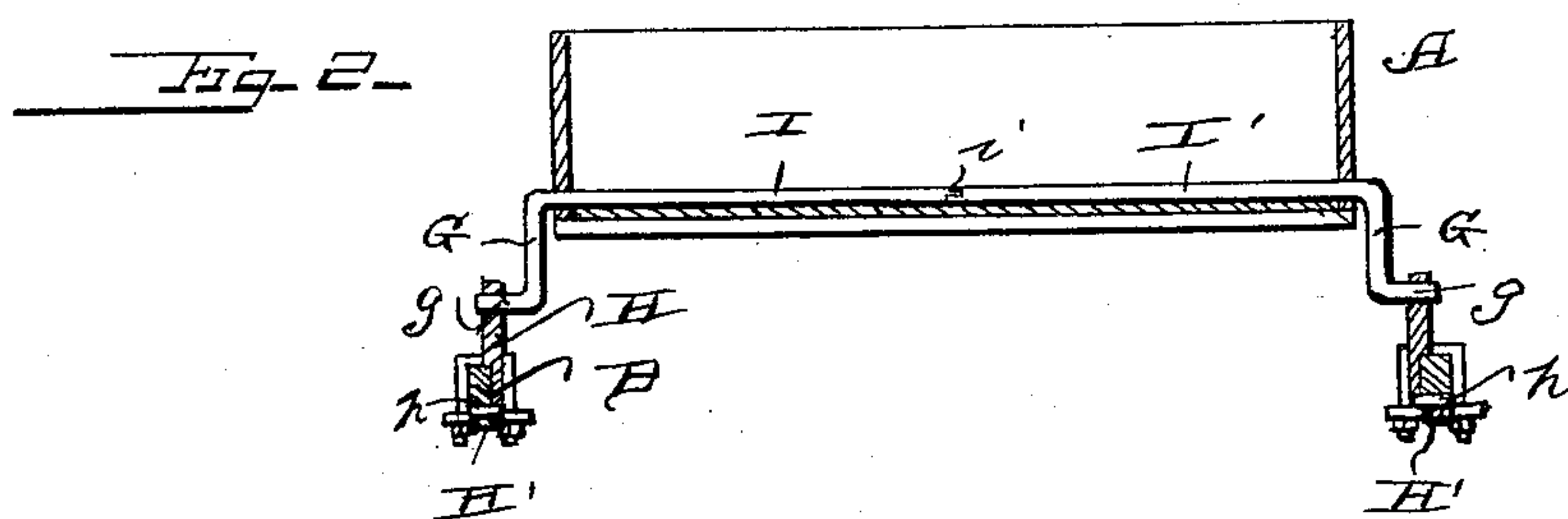
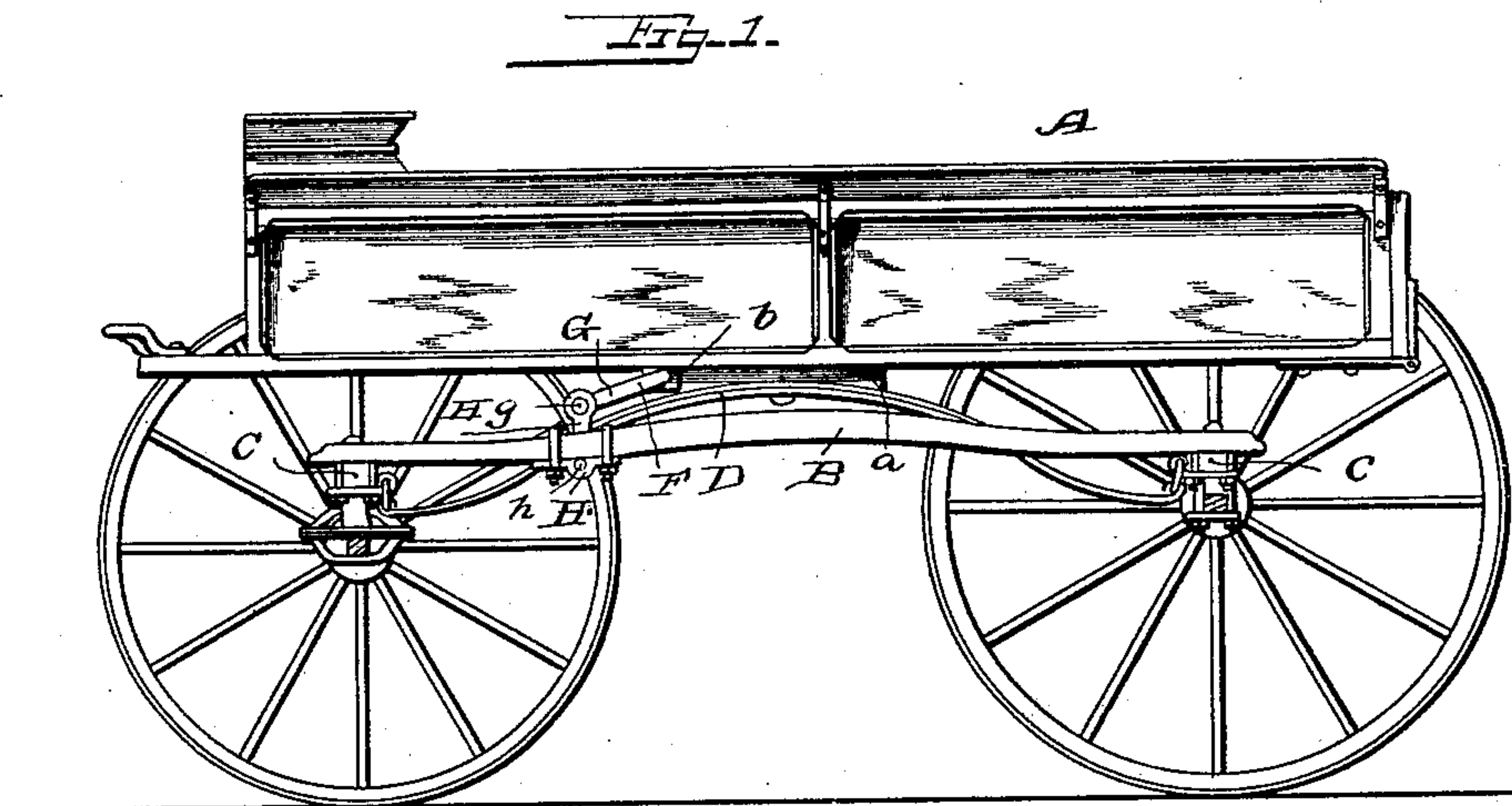


(No Model.)

C. GLATTLY.  
EQUALIZER FOR BUGGY SPRINGS.

No. 484,309.

Patented Oct. 11, 1892.



Witnesses  
*Jesse Hella*  
*Phil Massi.*

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# UNITED STATES PATENT OFFICE.

CHARLES GLATTLY, OF BUCK CREEK, IOWA.

## EQUALIZER FOR BUGGY-SPRINGS.

SPECIFICATION forming part of Letters Patent No. 484,309, dated October 11, 1892.

Application filed February 29, 1892. Serial No. 423,260. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES GLATTLY, a citizen of the United States, and a resident of Buck Creek, in the county of Bremer and State of Iowa, have invented certain new and useful Improvements in Equalizers for Buggies and Spring-Wagons; and I do 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view of a vehicle with invention applied. Fig. 2 is a detail view of bar in two sections.

This invention has relation to certain new and useful improvements in equalizer-bars for vehicle-springs; and it consists in the novel construction and combination of parts, as hereinafter specified.

The object of the invention is to provide a device which may be applied to the vehicles ordinarily in use for the purpose of keeping the box or body in a level position when unequally weighted or loaded, and also to prevent its tipping from side to side while traveling over rough and uneven ground.

In the accompanying drawings the letter A designates a vehicle-body, B B the parallel side bars, and C C the connecting end cross-bars.

D D are springs extending longitudinally of the body A on the under side thereof and secured thereto or to blocks *a a* at their central portions. These springs are shown as consisting of flat metal of double-curved form, loosely clipped at their ends to the cross-bars C C. It will be understood, however, that other well-known forms of springs may be used in connection with the equalizing-bar now to be described. This bar is designated by the letter F, and consists of a bar or rod extending transversely underneath the body and loosely supported in boxes *b b*. The boxes are usually of wood, bolted or clasped to the bed-pieces, and at their outer ends projecting slightly beyond the sides of the body,

having thereat a metal ferrule *b'* for the purpose of strengthening them. On each end of the bar or rod F is an arm or crank G, terminating each in a bent or transverse portion *g*, having a loose bearing in the upper end of an arm H, carried by the side bar. These arms H have each a transverse journal portion *h*, having a loose bearing in a box or block H' on the under side of the side bar. This permits them a forward-and-backward rocking movement under the oscillation of the bar F. Said arms project upwardly from the side bars to near the plane of the body, and as they are on the inner side of said bars the latter act as guards to prevent any lateral movement or sway of the arms.

In Fig. 2 I have shown a modified form of the bar, wherein it is formed in two parts or sections I and I'. The outer end of each section is the same as the outer ends of the bar first described; but the inner end of each is formed with an eye *i*, in order to permit the sections to be united by a bolt. The object of this modification is to adapt the device for attachment to vehicles that do not admit of running the rod under the box or body. In this case it is placed above the bed-pieces, extending out through the panels. This could not well be accomplished with a bar formed in one piece. It will also be seen that by slight modifications apparent to an ordinary skilled mechanic the bar may be connected to the axle of a vehicle not having side bars. The bearings of the various parts are usually lined with leather or other suitable material for the purpose of preventing rattling.

This equalizing device, arranged and constructed as above described, serves not only to keep the body or box in proper position, but compels the springs to act equally, the weight being equally borne by each.

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

The combination, with a vehicle-body having the side bars B B and the supporting-springs, of the equalizer-bar F, extending transversely of said body above the floor there-



of and formed in two sections having means  
for their connection, end cranks G on said bar,  
projecting through the sides of said body, jour-  
nal portions g, terminating said cranks, and  
5 the upwardly-projecting arms H, having loose  
bearings in the side bars and forming bear-  
ings for the journals g shortly below the plane  
of the body, said arms lying inside the side

bars, which serve as lateral guards therefor,  
substantially as specified. 10

In testimony whereof I affix my signature  
in presence of two witnesses.

CHAS. GLATTLY.

Witnesses:

G. P. LINN,

FRANK THULL.