

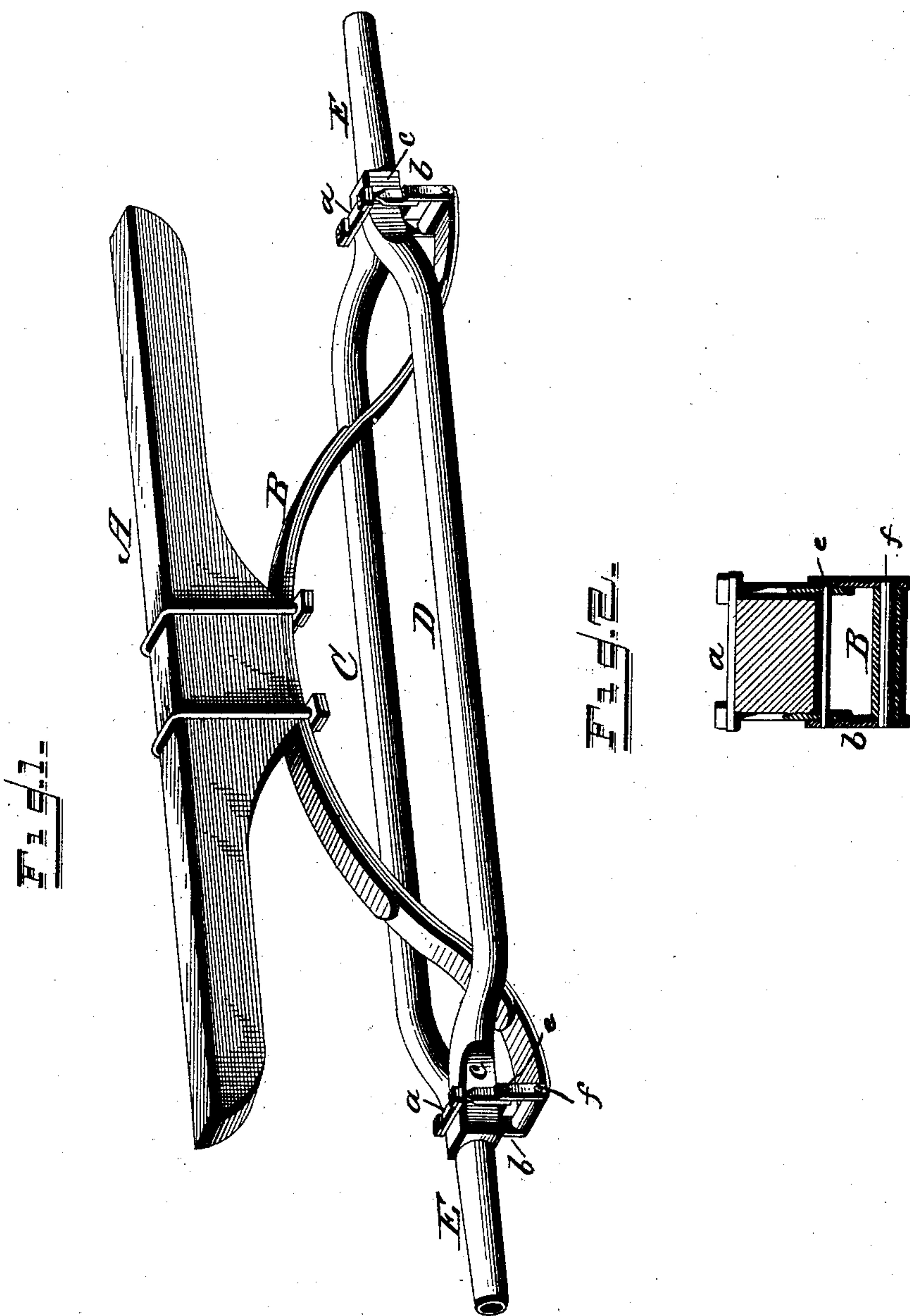
(No Model.)

G. S. HEFFLON.

RUNNING GEAR.

No. 362,077.

Patented May 3, 1887.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE S. HEFFLON, OF DEEP RIVER, CONNECTICUT.

RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 362,077, dated May 3, 1887.

Application filed February 21, 1887. Serial No. 228,384. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. HEFFLON, a citizen of the United States, residing at Deep River, in the county of Middlesex and State of Connecticut, have invented certain new and useful Improvements in Running-Gear; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of my improved axle for vehicles, showing the spring connected thereto and to the bolster, and Fig. 2 a cross-section, on an enlarged scale, through the end of the axle and means for connecting the ends of the spring thereto.

The present invention has relation to that class of axles for vehicles with double arms, to form a space in which the spring may extend and freely work, or, if preferred, drop toward a common center, so as to give a bearing at the extreme length of the axle instead of the wheel, thereby providing a superior construction of axle in which the spring may work in different positions, as will be hereinafter described and claimed.

The object therefore of this invention is to improve the manner of attaching the ends of the spring to the ends of the axle, whereby the spring will have a motion longitudinally of its length, which object I attain by the construction substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents the bolster, and B the usual leaf-spring, connected by means hereinafter described. The axle consists of the two longitudinal and parallel arms C D, terminating at their extremities in the usual spindles, E, of any desirable and well-known construction, to form an axis for the hubs of the wheels.

The extremities of the arms C D, at a point where they join each other, are formed square or flat sided, as shown at *c*, for attaching thereto suitable clips, *a*, and to these clips are pivoted hangers *b*, for connecting thereto the

ends of the spring B, as shown. By the employment of the hangers *b*, and pivoting them to the clips *a*, the spring is enabled to have a slight longitudinal movement to compensate for the angle which the wagon would assume when going over rough roads or side-hills.

I do not seek to claim, broadly, a spring suspended from the axle by pivoted hangers, as I am aware that such is not new with me; neither do I claim an axle with double arms, between which the spring works, but limit myself to my particular construction, attaching special importance to the fact that the extensions of the arms C D are square-sided, and that the clips which support the hangers embrace these extensions and serve to more firmly bind them together, the rod *e*, which serves as a pivot for the hangers *b*, passing through the ends of the clip and serving in a measure to stiffen the united ends of the arms C D; also, to the pendent parallel hangers *b*, through the lower ends of which passes the rod *f*, around which the end of the spring B is bent, as shown, the said parallel straight hangers preventing side-play of the spring.

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

The combination, with the bolster A and the axle formed of the arms C D, curved as shown, to leave a space between them, and flattened at their united ends, of the clip *a*, embracing said flattened ends, the rod *e*, connecting said clips beneath the axle, the straight parallel hangers *b*, pendent from said clips and pivoted on the rod *e*, the rod *f*, connecting the lower ends of said hangers, and the leaf-spring B, secured to said bolster, with its ends bent around the rods *f* between said hangers, substantially as shown and described, and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE S. HEFFLON.

Witnesses:

M. E. LYMAN,

A. M. HEFFLON.