

(No Model.)

H. METCALFE.

WAGON SPRING.

No. 345,162.

Patented July 6, 1886.

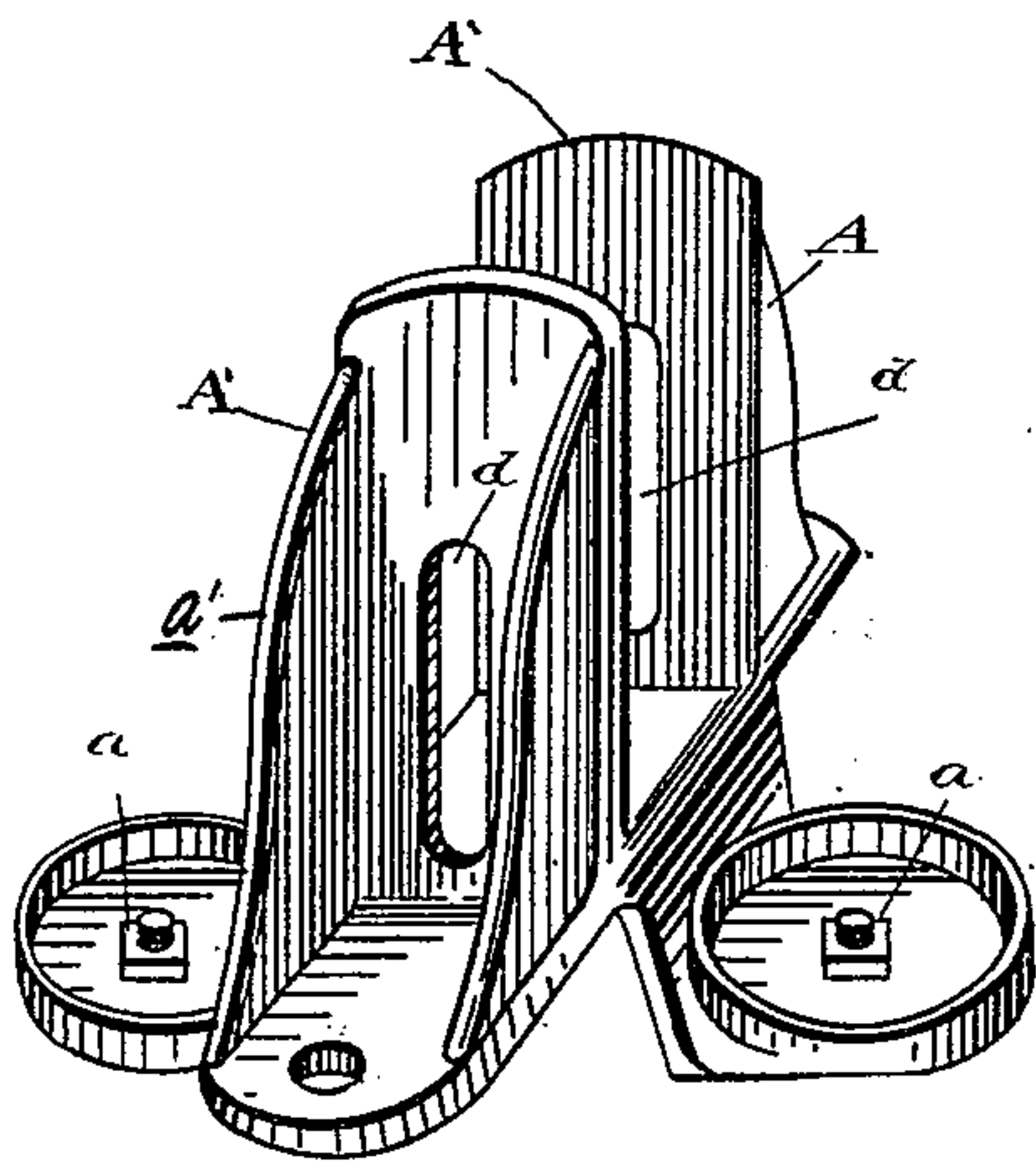


Fig. 2

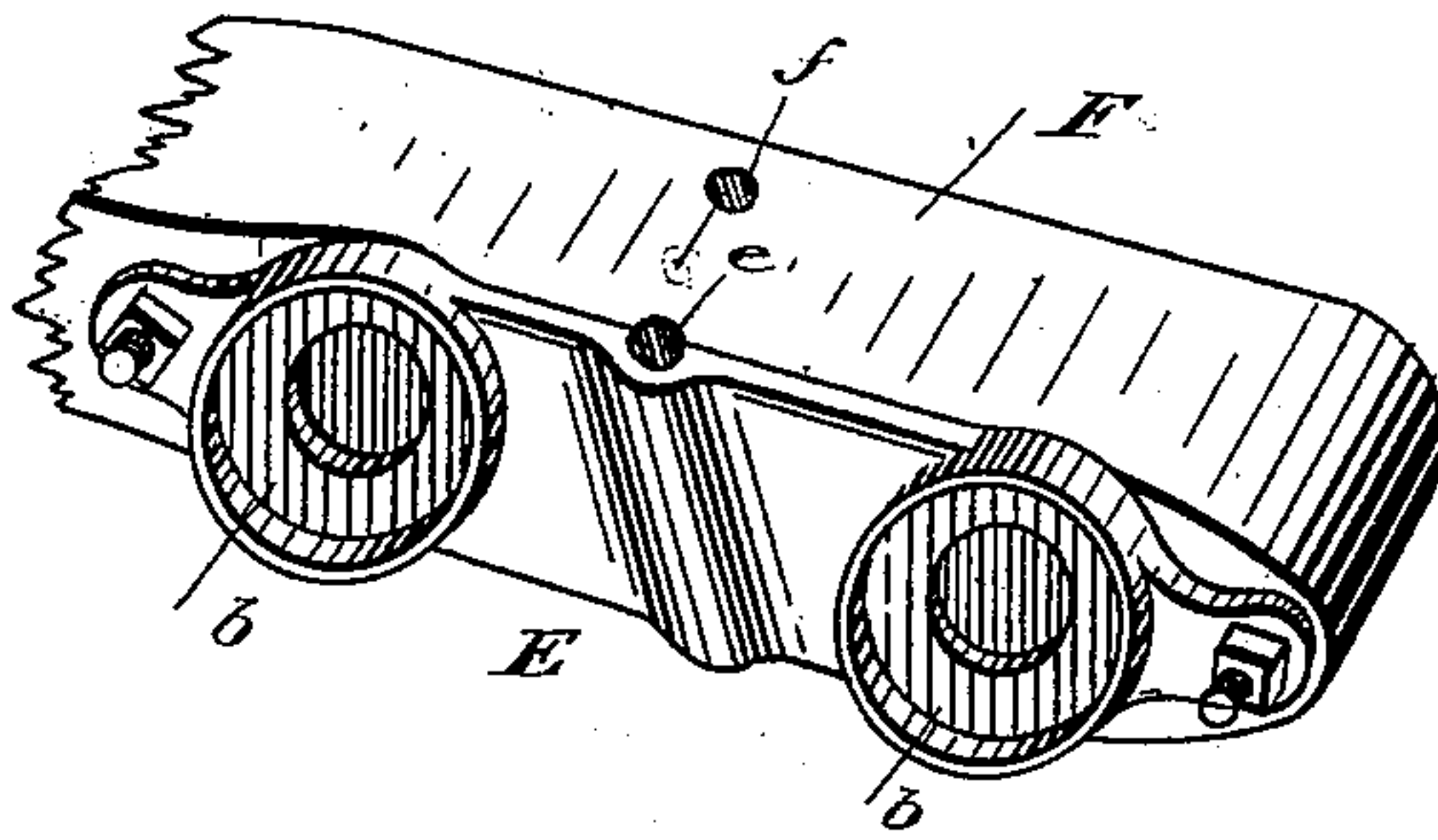


Fig. 3.

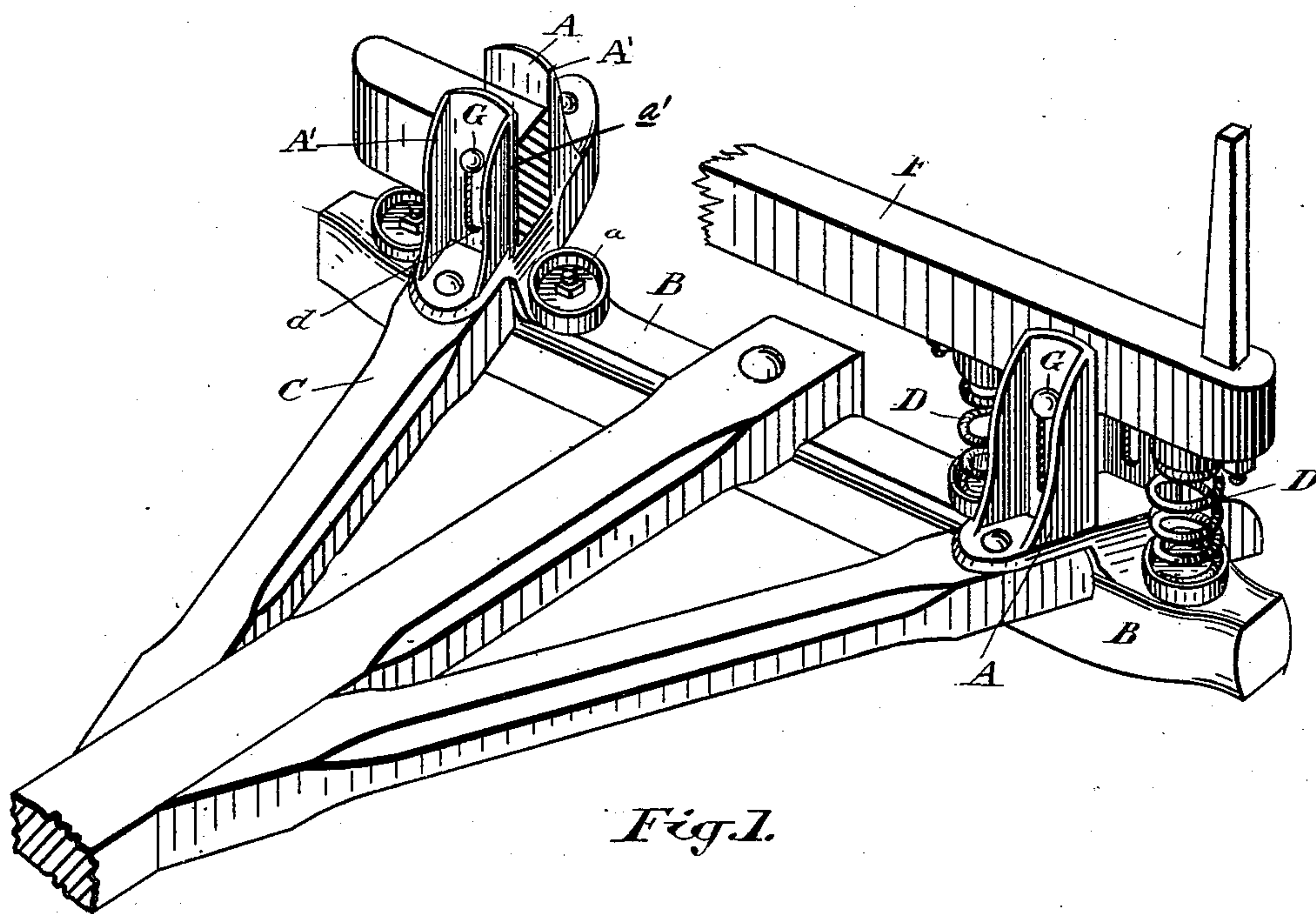


Fig. 1.

Witnesses.

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# UNITED STATES PATENT OFFICE.

HENRY METCALFE, OF PARIS, ONTARIO, CANADA.

## WAGON-SPRING.

SPECIFICATION forming part of Letters Patent No. 345,162, dated July 6, 1886.

Application filed April 2, 1886. Serial No. 197,556. (No model.) Patented in Canada March 31, 1886, No. 23,702.

*To all whom it may concern:*

Be it known that I, HENRY METCALFE, of the town of Paris, in the county of Brant, in the Province of Ontario, Canada, have invented a certain new and useful Improvement in Wagons, of which the following is a specification.

The object of my invention is to design a simple device by which a wagon may be readily changed from a dead to a spring wagon, or vice versa, and be equally as serviceable as either.

Figure 1 is a perspective view showing one axle, hound, and bolster provided with my improved mechanism. Fig. 2 is a perspective detail of the bracket to be attached to the axle. Fig. 3 is a perspective detail of the bracket to be attached to the bolster, showing a portion of the bolster to which it is attached.

A is a bracket designed to rest upon the axle B and clasp the hound C. This bracket is formed with downwardly-projecting portions designed to embrace the sides of the hound, and formed with the cups *a*, and also with upwardly-projecting jaws A', formed with strengthening-ribs *a'*, whereby guides for the bolsters, which have heretofore been formed on or attached to the axle, are dispensed with. Four such brackets are provided for each wagon, and have cups *a* formed in them to receive the springs D.

*b* are cups similar to the cups *a*, and formed in the plate E, one of which plates is placed over each bracket A, and attached to the bolster F, which fits between the jaws of the bracket A, as shown. Slots *d* are made in the jaws A' of the bracket A to permit the bolt G to pass through. When the springs D are inserted, as shown on the right-hand side of Fig. 1, the bolt G through each bracket A passes through the hole *e*, and securely holds the bolster F in position between the jaws A' of the bracket A, thereby retaining the springs D in position, while the slots *d* permit the bolster F to move vertically, so that the full benefit from the elasticity of the springs is secured. Of course it will be understood that I have four sets of springs in the wagon—that is to say, two brackets A on each axle, with their respective springs and attachments.

In order to change the wagon from a spring to a dead wagon, I simply remove the bolts G from the holes *e* and raise the bolster sufficiently to permit the withdrawal of the springs D, when each bolster will rest on the hound, or rather the bottom of the plate E will rest on the bottom of the jaws formed on the bracket A. The bolts G are then inserted into the holes *f*, formed in the bolster F, when the wagon will be an ordinary springless or dead wagon. From this it will be seen that the change can be made very rapidly, and the mechanism being so extremely simple any ordinary farmer can alter his wagon from a spring to a dead one.

It is well known that a spring-wagon is easier upon the horses and more agreeable to ride in, and is capable of carrying breakable stuff which could not be carried in a dead-wagon. At the same time, for carrying hay or grain from the fields, a dead-wagon is preferred by most farmers; consequently it is customary with those who can afford it to keep both spring-wagons and dead-wagons on hand.

By the adoption of my wagon a wagon which may be termed a "general-purpose" wagon is secured, and the change from one kind to the other is so readily and rapidly done that there is practically no trouble involved in making the change.

What I claim as my invention is—

1. The combination, with the bolster and the plate E, secured thereto, of the bracket A, secured to the axle, and formed with vertical jaws A', designed to embrace and guide said bolster, and said plate formed to serve with said bracket, either with or without the springs D, substantially as described.

2. The combination, with the axle B and the bracket A, secured thereto, and provided with cups *a* and jaws A', provided with slots *d*, of the bolster F, plate E, secured thereto, and provided with cups *b*, holes *e f* in said bolster, springs D, and removable bolts G, substantially as and for the purpose specified.

3. As an improved article of manufacture, the bracket A, comprising in a single element a base-plate to rest upon the hound, downwardly-projecting flanges to embrace the sides

of the same, and provided with cups *a*, and upwardly-extending jaws *A'*, to receive and guide the bolster, substantially as described.

4. The bracket *A*, comprising in a single  
5 piece a base-plate to rest upon the hound, and downwardly-projecting flanges to embrace the sides thereof, and formed with cups *a*, and upwardly-extended jaws *A'*, having strengthen-

ing-ribs *a'*, substantially as and for the purposes specified.

Paris, March 11, 1886.

HENRY METCALFE.

In presence of—

R. BROCKBANK,  
C. W. PALMER.