

G. A. BRICE.
Spring-Wagons.

No. 143,958.

Patented Oct. 28, 1873.

Fig. 1.

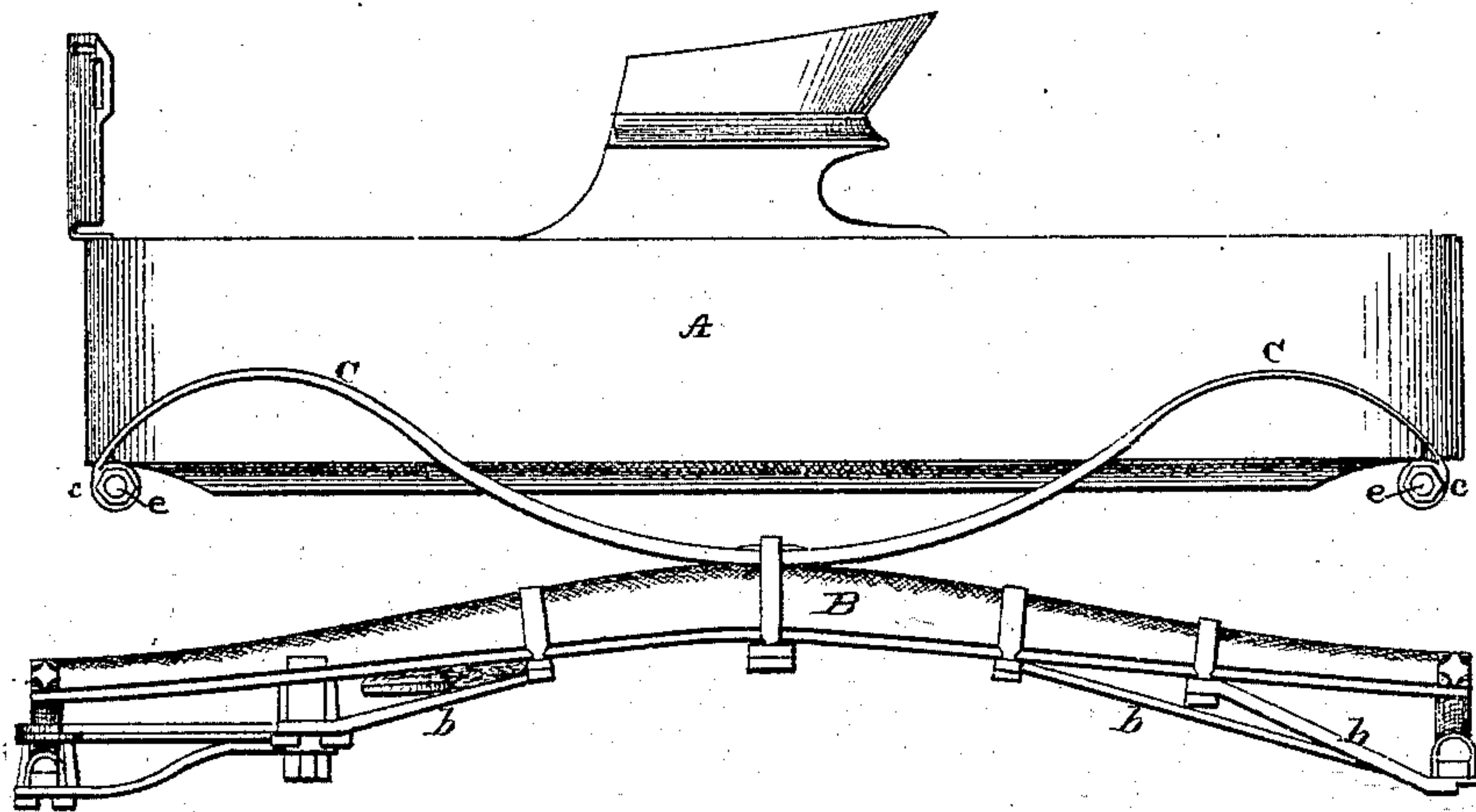


Fig. 2.

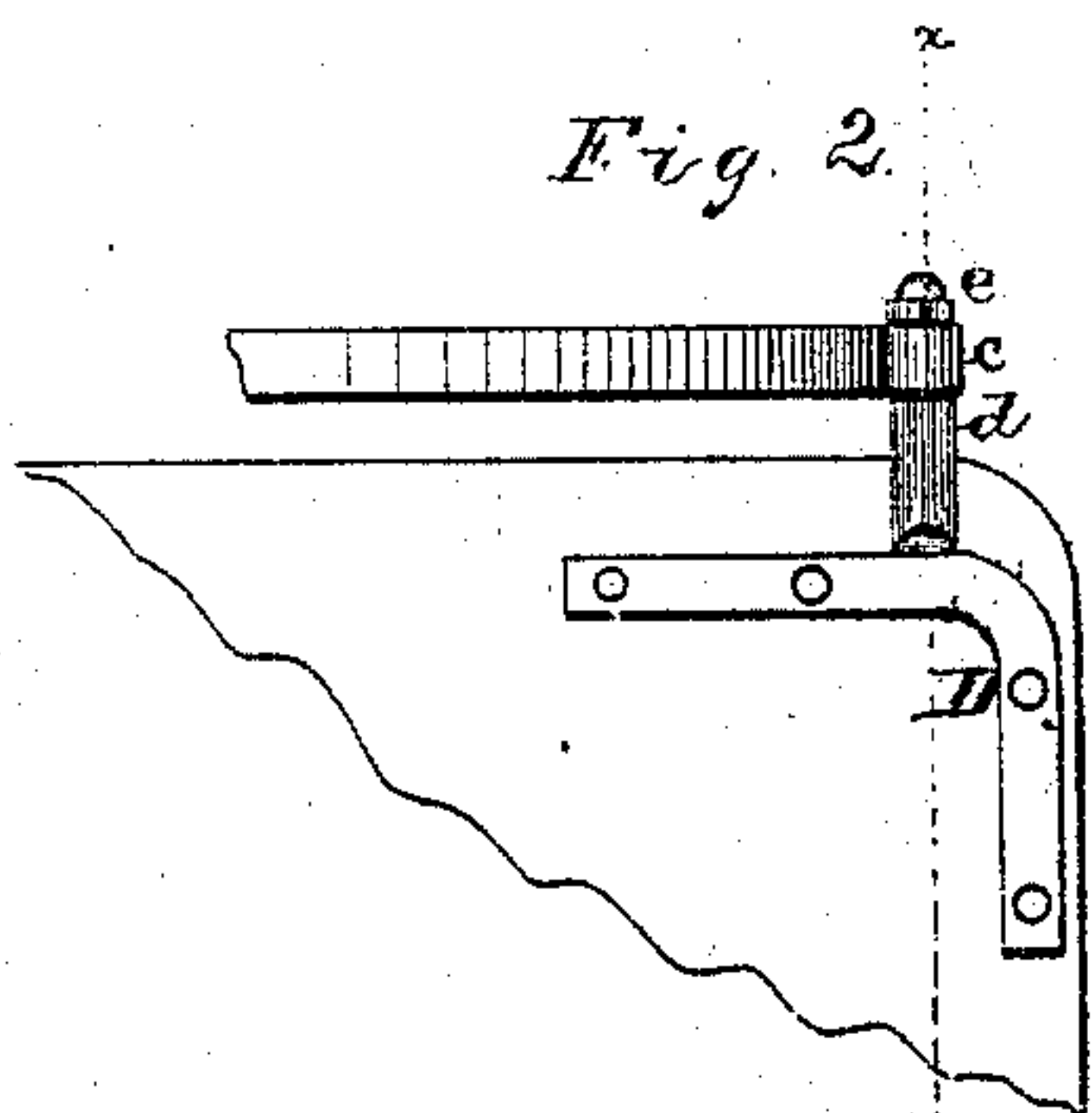
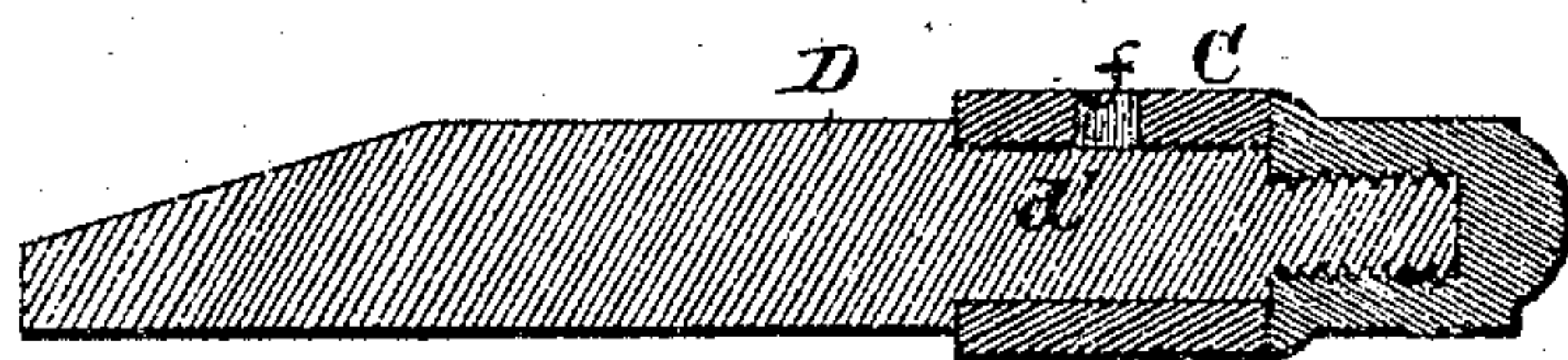


Fig. 3.



WITNESSES.

P. Hannay
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INVENTOR.

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by A. McCallum
att'y.

UNITED STATES PATENT OFFICE.

GEORGE A. BRICE, OF TOWNVILLE, PENNSYLVANIA.

IMPROVEMENT IN SPRING-WAGONS.

Specification forming part of Letters Patent No. **143,958**, dated October 28, 1873; application filed August 20, 1873.

To all whom it may concern:

Be it known that I, GEORGE ASA BRICE, of Townville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Spring-Wagon; 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 it, reference being had to the accompanying drawings which form part of this specification.

My invention relates to springs of wagons and the method of attaching them to the body and frame; the invention consisting in a novel construction and arrangement of the springs with relation to each other and to the body of the wagon which they support, all as herein-after more fully set forth.

In the accompanying drawings, Figure 1 is a side elevation of a wagon-body having my improved spring. Fig. 2 is a plan view of a portion of the bottom, showing method of attaching the spring. Fig. 3 is an enlarged sectional view taken on the line *x x*, Fig. 2.

A represents the body of the wagon; B, side spring-bars, one on each side of the wagon. They are clipped or bolted to the forward and rear axletrees, to which they are also further secured by braces *b*. C is a spring made of a single piece of metal bent in the form of a bow and secured at its center to the center of the side spring-bar B, as shown in Fig. 1 of the drawing. The ends of the spring C are bent upward and then slightly downward, its extremities being formed or bent into circular loops *c*. Both sides of the wagon are provided with these springs C. D represents brackets, one of which is secured to the bottom of the wagon at each corner. The bracket is provided with an arm, *d*, which projects beyond the side of the wagon. A portion of this arm is rounded off to form a journal, *d'*, and its outer extremity is cut with a screw-thread to receive a nut, *e*. The ends of the spring C are made to fit the

journals *d'* loosely, and when placed in position on the journals the springs are kept to their proper bearings by the nuts *e*. *f* is a hole cut through the spring for the purpose of oiling the journals *d'*. It may be covered by a screw-cap or other device, if desired.

The operation of the spring is as follows: When weight is brought to bear on the springs C and they bend down from the middle it will cause the ends or short bends of the bow to bend upward or assume a more arched form, the loose connection of the extremities with the journals of the brackets D allowing it to turn on the journals, and thereby obviate any tendency of the spring to snap or break as its short bends arch.

With these single metal bow-shaped springs secured at the center to the spring side bars, and having their extremities turning freely on the bracket-journals, a strong yet sympathetic spring eminently suited for the requirements of spring-wagons is produced and a great saving effected in their construction.

I am aware that double-curved wing-shaped springs formed with separate leaves, secured to the axle and attached to the rear of the wagon-body by pivot-brackets, have before been invented; but I am not aware that single metallic springs of the form herein shown and described have before been known or used therefor.

What I claim as my invention is—

The single metal springs C, in combination with the journaled brackets D and side spring-bars B, all constructed substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of July, 1873.

GEORGE ASA BRICE.

Witnesses:

ROE REISINGER,
A. P. BARNES.