

H. W. BALLARD.

Wagon Spring.

No. 12,475

Patented Mar. 6, 1855.

Fig: 1.

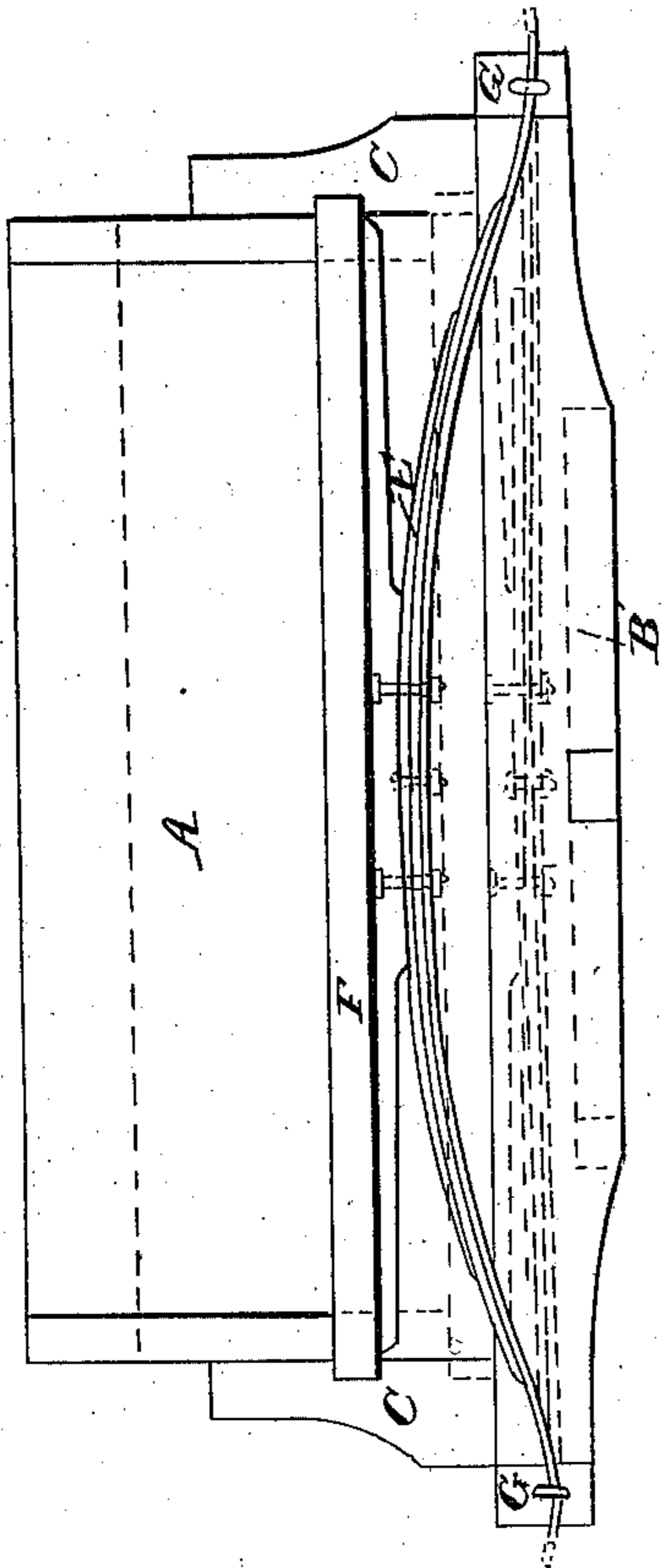
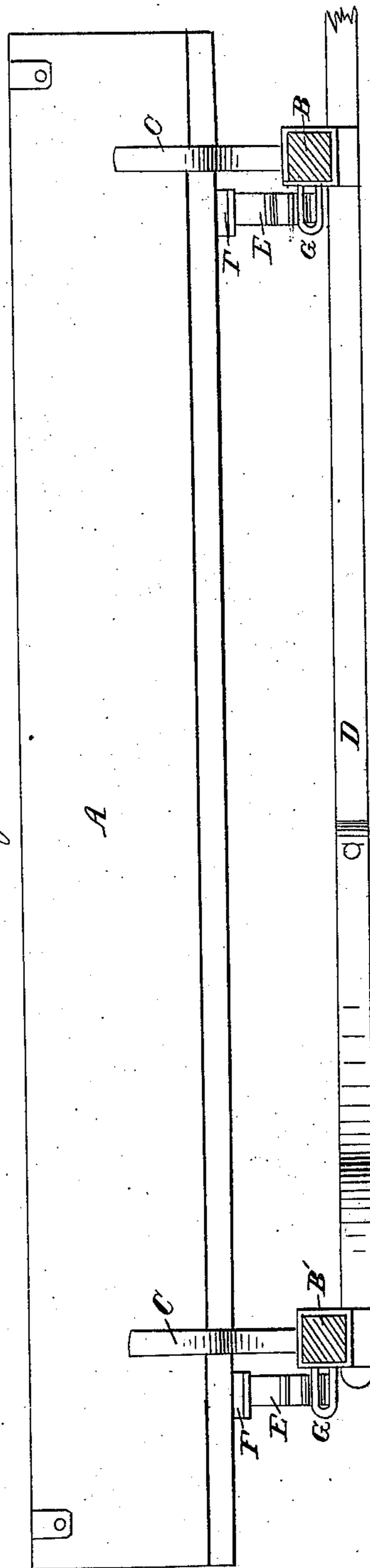


Fig. 2.



UNITED STATES PATENT OFFICE.

HARMON W. BALLARD, OF BURLINGTON, VERMONT.

ARRANGEMENT OF THE SPRINGS ON WAGONS.

Specification of Letters Patent No. 12,475, dated March 6, 1855.

To all whom it may concern:

Be it known that I, HARMON W. BALLARD, of Burlington, in Chittenden county and State of Vermont, have invented certain
5 new and useful Improvements in Box-Wagons; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms part of
10 this specification, and in which—

Figure 1, is a view of the rear or tail end of a wagon body with axletree and spring. Fig. 2, is a side view of a wagon body, with the hind axletree, the rocker or
15 bolster, reach, and both springs.

The same letters of reference occurring in both figures indicate corresponding parts.

The nature of my invention consists in a peculiar arrangement of the springs, so that
20 they may be affixed to any common box wagon without altering it in any way, and at trifling cost, in order to make it an easy riding wagon, while from the position of the springs, they admit of the body coming
25 down to its bearings on the rocker or bolster, and axletree, when under heavy burden without injuring the springs, thus doubling its utility.

To enable others to construct wagons with
30 my improvement, I will proceed to describe it.

In the accompanying drawing, (A) represents the box or body part of the wagon; (B), the rocker or bolster, over the front
35 axletree, and (B') the hind axletree, each having side pieces (C) projecting upward, on either side of the body to keep it in place, that is, to prevent any lateral or longitudinal motion of the body on the running gear,
40 while they admit of its moving vertically; (D) is the reach which connects the hind axletree with the rocker or bolster over the front axletree, all of which may be constructed in any well known manner; having the wagon thus or similarly constructed,
45 I attach a long semielliptical spring (E), (round, or arch side upward,) to the underside of the body, immediately in front, or in rear of the bolster (B), or both, with a

piece of timber (F) extending from side 50 of the body, between it and the spring or springs to stiffen the bottom; the ends of the springs rest in staples or hooks (G), on the side or sides of the bolster near its ends, in such manner as to admit of their extension, when the spring is borne down or
55 straightened by a heavy load, as represented by the red lines in Fig. 1. A spring or springs are arranged in like manner on either or both sides of the hind axletree, 60 thus when the load is too heavy for the springs to bear, they straighten down on either side of the bolster and hind axletree, and the wagon body rests upon its solid bearings, without straining the springs to 65 too great an extent. The elliptical or double spring may be used with similar action, by attaching the upper half to the wagon body in the manner before described, and the lower half to a side projection at the center 70 of the bolster near its lower edge; or the single spring before described may be used inverted, by securing it at the center to the side of the bolster or axletree, with its ends bearing against the underside of the 75 body.

Having thus described my invention I wish to be understood, that I do not claim a spring wagon having solid bearings, to take the weight of the load when it becomes 80 too heavy for the springs to bear, as this has been accomplished before in other ways, but

What I do claim as new and useful, and desire to secure by Letters Patent, is— 85

The arrangement of the springs, as herein described, on either or both sides of the rocker, bolster or axletree of a wagon, cart or other vehicle, as and for the purposes 90 specified.

In testimony whereof, I have hereunto subscribed my name this 18th day of October 1854.

H. W. BALLARD.

Witnesses:

WM. G. SHAW,
WM. M. MILLER.