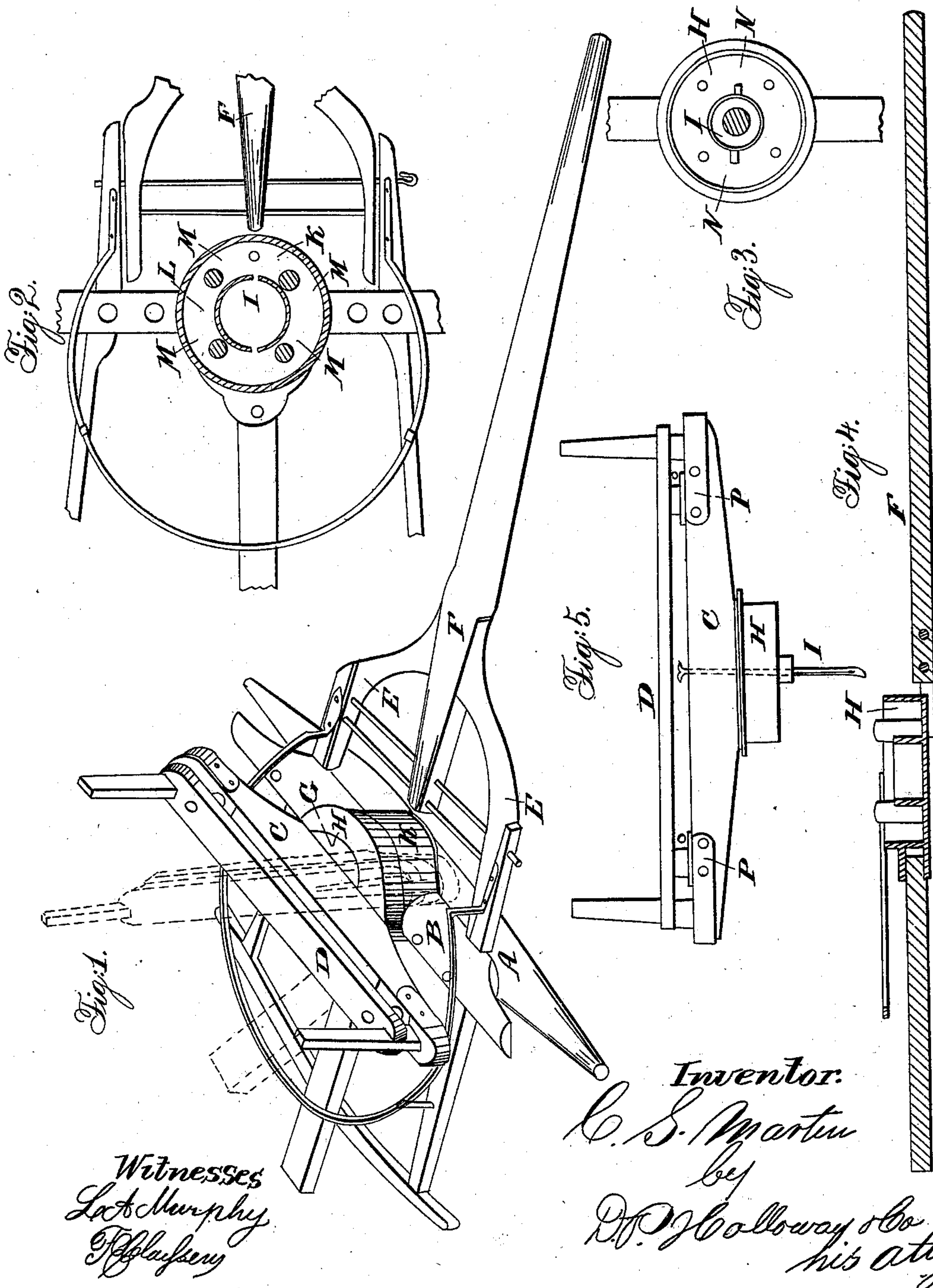


C. S. MARTIN.
Carriage-Spring.

No. 56,074.

Patented July 3, 1866.



Witnesses
L. A. Murphy
J. H. Hays

Inventor.
C. S. Martin
by
D. D. Holloway & Co.
his attys.

UNITED STATES PATENT OFFICE.

C. S. MARTIN, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN WAGON-SPRINGS.

Specification forming part of Letters Patent No. 56,074, dated July 3, 1866.

To all whom it may concern:

Be it known that I, C. S. MARTIN, of the city and county of Milwaukee, and State of Wisconsin, have invented a new and useful Improvement in Springs for Wagons; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in placing on the forward axle-tree of a wagon a hollow cylinder, in which I put springs on which the bolster of the forward part of the wagon rests; and also in putting springs under each end of a cross on top of the bolster for the purpose of easing the load and preventing the sudden jolts which are so destructive to common wagons.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 is a view of the forward gear of a wagon with my improvement as in use; Fig. 2, a view of the same with the bolster and cylinder-cap removed; Fig. 3, the cap of the cylinder which rests on the spring; Fig. 4, a transverse sectional view of the forward axle-tree of a wagon with my improvement; Fig. 5, a front elevation of the bolster.

A is the axle-tree; B, sand-board; C, bolster; D, bolster-bar; E, reach; F, tongue; G, plate on the under side of the bolster; H, cap of the cylinder which incloses the springs; I, bolts running through bolster-bar down into the bolster; K, cylinder inclosing the springs; L, circular partition in the base of the cylin-

der; M, springs made of rubber, cone-shaped. These springs may be made of wire in spiral form. N are spurs attached to a rim on the cylinder-cap H, which pass down into slots in partition L to keep cap H from turning round. O are springs under bolster-bar D, resting in cups, and through which bolts I pass. When weight enough is placed on bar D these springs, made cone-shaped, will sink into the cups, so that the bar may rest on the bolster. These springs may be made also of wire, in spiral form. P are cups in bolster for springs O to rest in.

In my drawings there are but four springs shown under the bolster, though more may be added if found necessary—one between each of those shown and one in the center for the king-bolt to pass through, making nine in all.

The rim on the cap H is smaller in diameter than rim L, and when in place fits inside the latter.

The operation of my improvement is obvious. When the wagon is loaded the springs are pressed down more or less according to the load, and as the wheels pass over uneven ground the sudden jolt which occurs in wagons without my improvement is avoided.

What I claim as my invention, and wish to secure by Letters Patent, is—

The springs O, in combination with bolster C, bar D, bolts I, and cups P, substantially as described.

C. S. MARTIN.

Witnesses:

I. B. SMITH,
H. GURNEY.