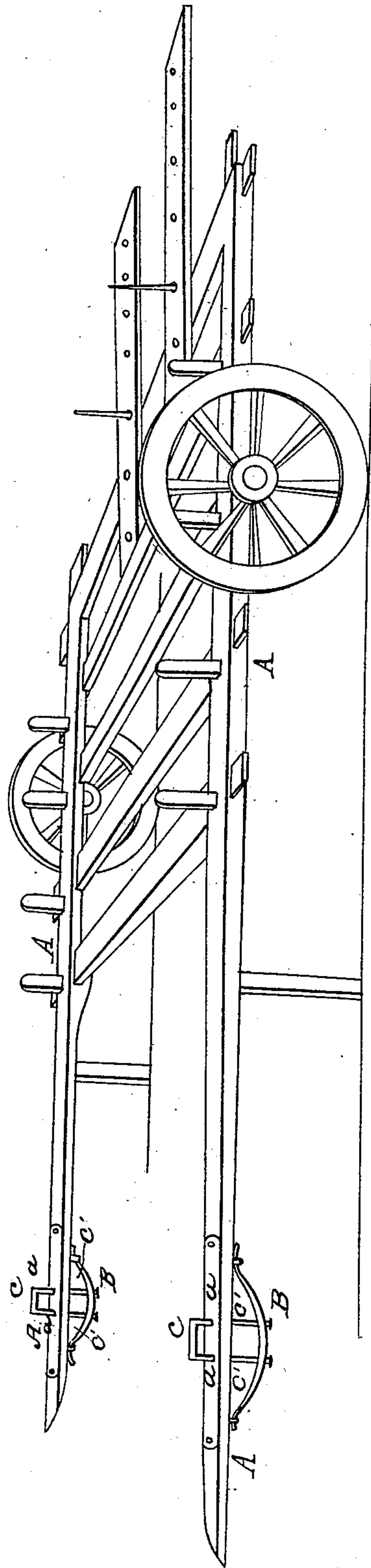


T. S. SPEAKMAN.

Dray.

No. 5,673.

Patented July 18, 1848.



N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS S. SPEAKMAN, OF PHILADELPHIA, PENNSYLVANIA.

COMBINATION OF SPRINGS WITH THE BACK-CHAIN OF CARTS, &c.

Specification of Letters Patent No. 5,673, dated July 18, 1848.

To all whom it may concern:

Be it known that I, THOMAS S. SPEAKMAN, of the city of Philadelphia, in the State of Pennsylvania, have made a new and
5 useful improvement in the manner of constructing drays, carts, and other vehicles of a like character, by means of which improvement the horse is greatly relieved from the injurious effect of the numerous and incessant jolts occasioned by the passing thereof
10 over the paving-stones and other inequalities of the road; and I do hereby declare that the following is a full and exact description thereof.

15 My improvement consists in the combining of elliptic, semi-elliptic, or other suitable springs with the back-chain which passes over the back of the horse, and sustains the pressure of the load. Under each shaft
20 there is one of these springs, to which are attached iron staples that pass through suitable holes in the shafts, and the upper ends of which are attached likewise to the back-chain.

25 In the accompanying drawing A, A, show the shafts of an ordinary dray. B, B, are two semi-elliptic springs, that are attached to the lower ends C', C', of two staples C, C, which have shoulders or enlargements at a, a,
30 to prevent their descending beyond that point. Plates of iron are riveted on the upper and lower sides of the shaft, where the staples pass through, for the purpose of strengthening them, and to serve as bearings for the semi-elliptical or other springs.
35

Horses employed to draw drays and carts, as these vehicles are now constructed, suffer great inconvenience, and are not infrequently ruinously injured from the want of that elasticity which is supplied by the
40 above described device, which affords the same relief in these vehicles that is afforded by the ordinary elliptic springs, when placed under the body of a wagon, or other carriage.
45

Having thus fully described the nature of my improvement in the manner of constructing drays, carts, and other vehicles of a like character, what I claim therein as new, and desire to secure by Letters Patent, 50 is—

1. The combining with each end of the chain that passes over the back of the horse, of a semi-elliptical, or other suitable spring, which spring is to bear against the under
55 side of each of the shafts, in the manner and for the purpose herein fully made known.

2. I do not claim as new the spring, or any other individual part of the apparatus herein described, but I do claim that combination and arrangement of such parts as
60 set forth, by means of which a new and very useful effect is produced.

THOMAS S. SPEAKMAN.

Witnesses:

C. BRAZER,
H. ROBERTS.