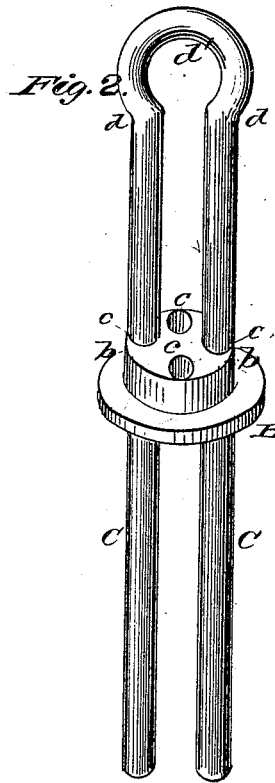
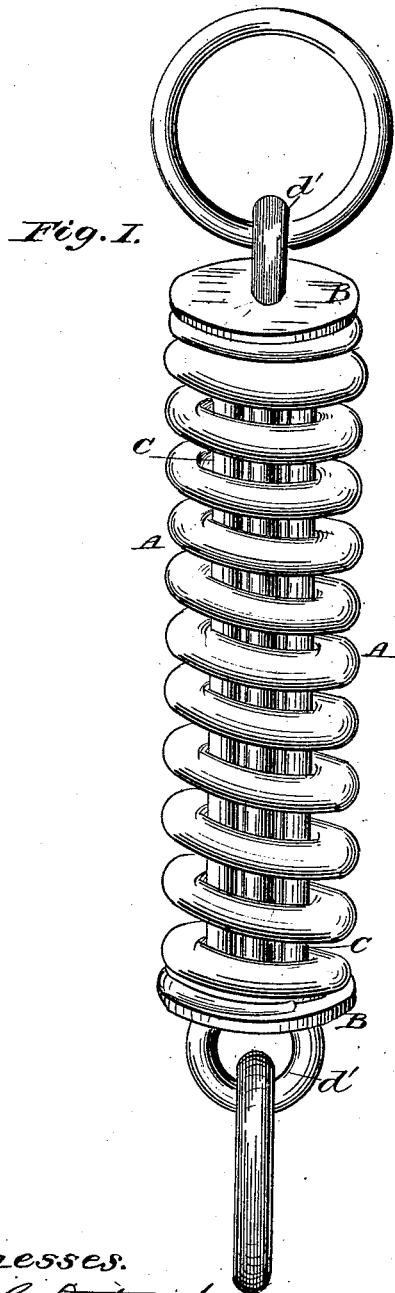


J. DABUS.
Draft-Spring.

No. 211,710.

Patented Jan. 28, 1879.



Witnesses.
Wm. G. Dutcher
George Pinkenburg

Inventor
John Dabus
by Louis Prager & Co.
his Attorneys

UNITED STATES PATENT OFFICE.

JOHN DABUS, OF PIQUA, OHIO.

IMPROVEMENT IN DRAFT-SPRINGS.

Specification forming part of Letters Patent No. **211,710**, dated January 28, 1879; application filed December 16, 1878.

To all whom it may concern:

Be it known that I, JOHN DABUS, of Piqua, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Draft-Springs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved draft-spring, and Fig. 2 is a detailed perspective view of the hitching-staples and their securing plates or heads.

The same part in the two figures is denoted by the same letter.

This invention relates to certain improvements in that class of devices termed "draft-springs" or "spring draft-tugs;" and it consists in constructing the staples which work within the barrel of the spring with shouldered heads, abutting against the outer faces of the perforated disks, through which the said staples are inserted, the object of this improvement being to limit the outward movement or spreading apart of said disks, and thereby prevent slipping of the free ends of the spring from off the shouldered disks between which the spring works.

In the annexed drawings, A refers to a single coiled or barrel spring, each end of which impinges upon a plate or disk, B B. These disks or plates are formed upon their inner surfaces with inwardly-projecting heads or shoulders *b b*, extending sufficiently far into the spring at its ends to enable them (the said heads or shoulders) to prevent the lateral displacement of the ends of the springs, and at the same time strengthen it. These shoulders or heads also obviate the securing of the ends of the spring to the plates or disks B.

C C are the staple-rods, whose ends are secured in opposite disks or plates B, and passing through holes or perforations *c c*, extending through the said disks and their internal heads or shoulders, as clearly seen in the figures, by which each plate, with its attached

staple, is allowed a limited movement or play back and forth upon the opposite staple, set at right angles thereto, as the spring is distended and compressed in the starting and stopping of the team or horse, the spring being applied to the shafts of a vehicle, usually to the shafts of heavy draft-vehicles. Each staple-rod is formed with a shoulder, *d*, and an eye, *d'*, to receive the ring, hook, or other medium for connecting the spring to the traces or tug-chains.

It will be seen that the shoulders *d d* of the staple-rods serve to limit the outward movement or the spreading too far apart of the disks or plates B B, and consequently avoid the slipping of the free ends of the spring off the heads or shoulders *b b* of the plates or disks B B.

It will be further observed that by means of these heads *b b* the spring is prevented from hugging or coming into contact with the sliding staple-rods C C to that extent that would interfere with the proper or easy movement of said rods.

I am aware that it is not new to construct a draft-spring consisting, essentially, of a coiled spring, staples, and disks or heads, combined and arranged substantially as herein described, and lay no claim to such construction, broadly; but

What I claim as my improvement, and desire to secure by Letters Patent of the United States, is—

In combination with the coiled spring A and perforated shouldered disks B B, arranged as described, the staples C C, when provided at their doubled or bent part with shoulders *d d*, abutting against the exterior faces of the disks B B, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN DABUS.

Witnesses:

SAMUEL B. GARVEY,
JOHN W. KING.