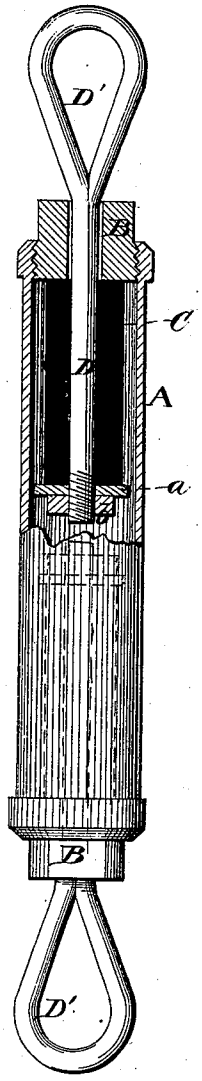
F. DAWSON.
Spring Draft-Tug.

No. 197,615. Patented Nov. 27, 1877.




WITNESSES
Franck L. Outand.
H. A. Toulmin

INVENTOR
Frank Dawson
Alexander Thomson
ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

FRANK DAWSON, OF WILLIAMSPORT, PENNSYLVANIA, ASSIGNOR TO C. D. BREWER, OF SAME PLACE.

## IMPROVEMENT IN SPRING DRAFT-TUGS.

Specification forming part of Letters Patent No. **197,615**, dated November 27, 1877; application filed October 30, 1877.

*To all whom it may concern:*

Be it known that I, FRANK DAWSON, of Williamsport, in the county of Lycoming, and in the State of Pennsylvania, have invented certain new and useful Improvements in Spring Draft-Equalizers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a spring draft-tug for attaching the traces to the hames of a horse-collar, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a side view of my spring trace-tug, with a portion of the case broken away to show the interior thereof.

A represents a round iron case or barrel, of any suitable dimensions, provided at each end with a head, B, screwed therein. Within the case A are inclosed two rubber springs, C C. Through the screw-head B and rubber spring C, at each end, is passed a rod, D, with an eye or hook, D′, on its outer end, to connect the case or barrel with the trace. On the inner end of each rod is a washer, *a*, and nut *b*, to prevent the rod from drawing through the rubber spring and screw-head. The rods D D are loose in the heads B B, and act as swivels.

This spring-tug is intended to be attached to the hames and traces, so that, in pulling, the animals will be relieved from sudden jerks and strains, and it is specially designed for street-car horses and cart-horses.

It will be noticed that all the working parts are completely inclosed within the case or barrel, so as to be fully protected from dust, dirt, snow, and ice.

By having two independent springs and two independent swivels, either can be removed without disturbing the other in case any part should become broken or out of order. It may also become advantageous, in many cases, to change the tension in the thickness of the rubber on one or both draw-bars, so as to adjust the device to the work required.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a spring trace-tug, the swiveled rods D D, each provided with an eye or hook, D′, rubber spring C, washer *a*, and nut *b*, in combination with the closed case or barrel A, having heads B B screwed into the ends thereof, all constructed as described, whereby the rods are made entirely independent and free from each other, and all the parts protected from dust and dirt, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of October, 1877.

FRANK DAWSON.

Witnesses:
T. J. HUMES,
C. D. BREWER.