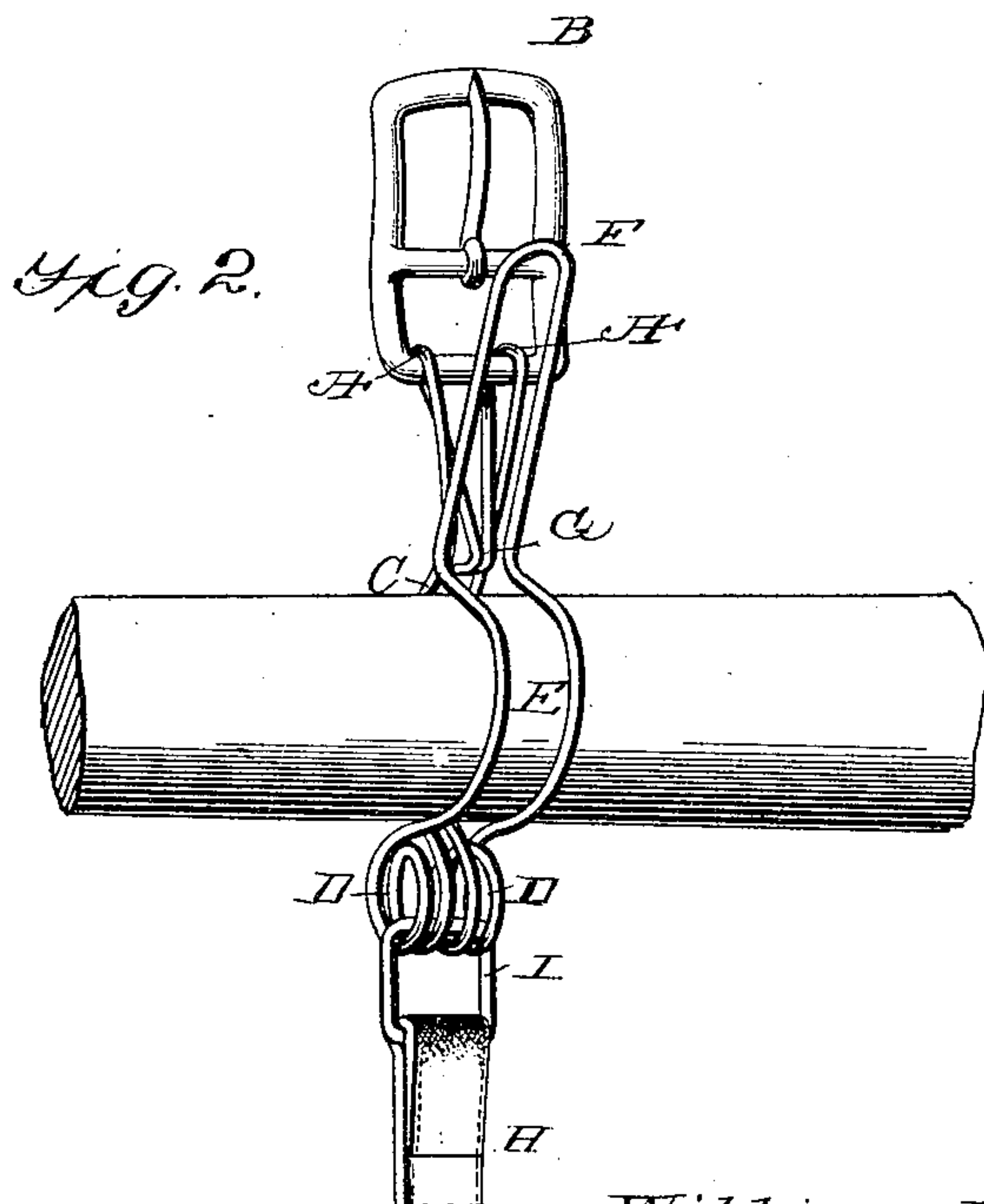
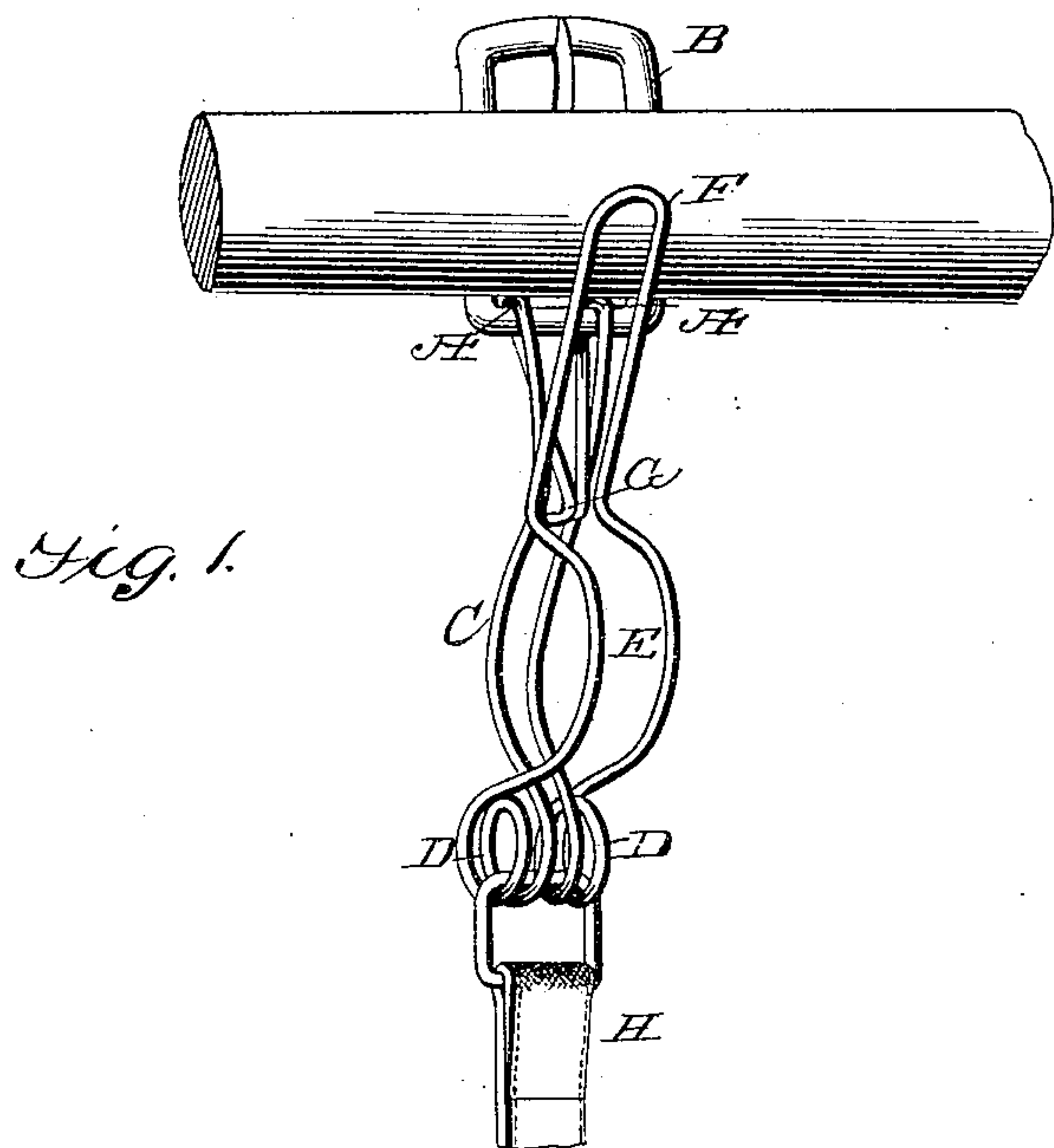


(No Model.)

W. E. A. PIPHER.
SHAFT TUG.

No. 547,029.

Patented Oct. 1, 1895.



Inventor

Witnesses

Jos. L. Stack
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UNITED STATES PATENT OFFICE.

WILLIAM E. A. PIPHER, OF PARKER'S LANDING, PENNSYLVANIA, ASSIGNOR
OF ONE-THIRD TO SAMUEL CRAIG, OF SAME PLACE.

SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 547,029, dated October 1, 1895.

Application filed January 19, 1895. Serial No. 535,531. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. A. PIPHER, a citizen of the United States, residing at Parker's Landing, in the county of Armstrong and State of Pennsylvania, have invented a new and useful Shaft-Tug, of which the following is a specification.

My invention relates to certain new and useful improvements in thill-tugs, and has for its object to provide such a device that will be simple in construction and at the same time greatly facilitate the operation of hitching a horse to a vehicle; and with these ends in view my invention consists in the details of construction and combination of elements hereinafter described in the specification and specifically set forth in the claims, reference being had to the accompanying drawings, forming a part of this specification, in which—
Figure 1 is a perspective view of my device, showing a thill in the act of entering the spring-guide. Fig. 2 is a similar view with the thill in proper position within the supporting-loop.

Similar letters of reference denote like parts in both the figures of the drawings.

The device, as shown, is made of a single piece of wire, which is bent in such manner as to form the several members or sections thereof. The two ends are bent in loops A around the eye of the buckle B, by which the device is attached to the back-band of the harness, and from thence the two wires extend downward parallel in a compound curve, forming the back C of the supporting-loop. The wires are then coiled to form the springs D and extend upward, forming the front or outer side E of the supporting-loop and terminating in a flared end F, for the purpose presently explained. The free ends of the wires, after forming the loops A, extend downward and terminate in a projection G, closing the space at the top of the supporting-loop. The girth-strap H is secured to the tug by means of an ordinary ring or link I, passing through the coils of the springs D.

The end or arm F is outwardly and upwardly inclined, being arranged at an angle to the extensions A, which have knuckle-receiving eyes, and the retaining projection G is located at the angle formed by the extensions A and

the outwardly-inclined end or arm F, and locks the thill in the circular loop. The stationary member or section of the thill-supporting loop conforms to the configuration of the inner side face of the thill, and the spring-actuated member or section conforms to the configuration of the outer side face of the thill.

From the foregoing description the operation of my improvement is obviously as follows: The tugs being secured to the harness and in place on the horse the thills are elevated and brought in proper position over the horse, and by lowering them they will come in contact with the flared ends F of the tugs, and it is then only necessary to exert sufficient pressure on the thills to overcome the resiliency of the springs D to force back the members F and allow the thills to drop within the loops, where they will be retained by the spring-pressure and prevented from accidental upward movement by the projections G.

By the use of my improvement the necessity of going from side to side of the horse in hitching is obviated, as the tugs automatically receive and retain the thills by the downward movement of the latter, and when thus in place the thills are held snugly by the spring-pressure.

On account of the simplicity of tugs made in accordance with my invention they have been found to be very durable, as there is no undue strain or wear on any portion thereof, and they will outwear many times the ordinary tugs.

While I have shown my device made of one piece of wire, it is obvious that it could be formed of two or more parts without departing from my invention.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having fully described the invention, what I claim as new and useful is—

1. In a thill tug, the combination with a girth strap, of a circular thill supporting loop conforming to the configuration of and adapted to receive a thill, and composed of a stationary section or member having a semi-cir-

cular portion and forming one half of said loop, a spring actuated section or member similarly curved and forming the other half of the loop and provided at its top with the
5 outwardly inclined end or arm, a connecting spring coil arranged at the bottom of the sections or members, and forming an eye for the attachment of the girth strap, and a retaining projection formed on one of the sections
10 and located at the top or entrance of the loop and closing the same to lock a thill therein, and a buckle arranged at the top of the stationary section or member and connected with the same, substantially as described.

15 2. In a thill tug, the combination with a girth strap, of a circular thill supporting loop constructed of a single piece of wire and composed of a stationary section or member curved and forming one half of the loop, and
20 conforming to the configuration of the inner face of a thill and provided at its top with extensions having buckle receiving eyes, a similarly curved spring actuated section or mem-

ber forming the other half of the loop and conforming to the configuration of the outer 25 side of a thill and provided at its top with an outwardly inclined end or arm arranged at an angle to the said extensions and forming an entrance loop, the retaining projection located at the angle formed by the extensions and 30 the arm and closing the loop at the top thereof, to lock the thill therein, and a spring coil arranged at the bottom of the loop and connecting the members or sections and forming an eye for the attachment of the girth strap, and 35 a buckle linked into the eyes of said extensions, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 40 the presence of two witnesses.

WM. E. A. PIPHER.

Witnesses:

ISAAC MILLER,

W. G. MCGLAUGHLIN.