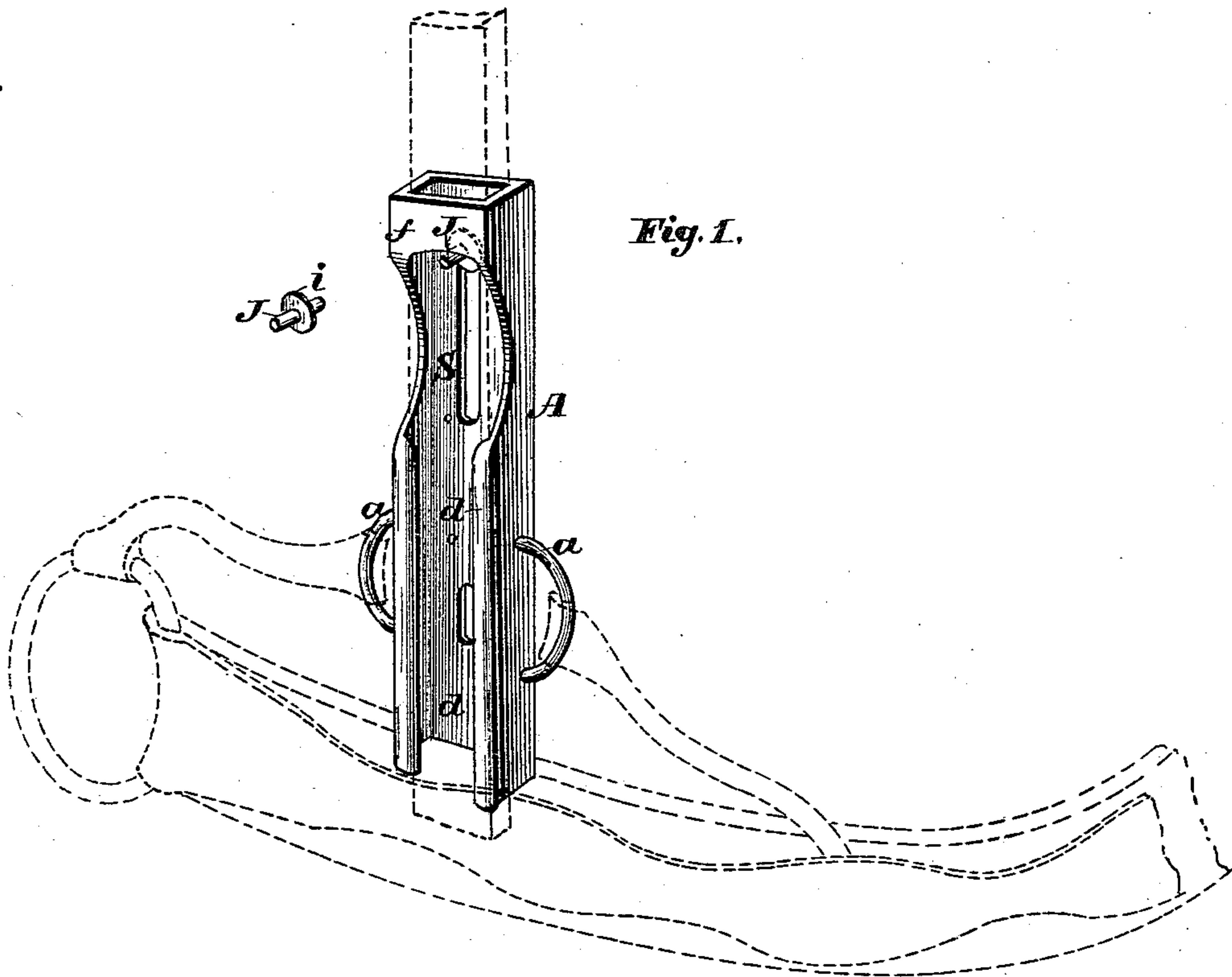


P. S. MILLER.
Harness.

No. 226,241.

Patented April 6, 1880.



WITNESSES.

J. Henry Kaiser.
J. A. Rutherford

INVENTOR

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PHILIP S. MILLER, OF SAN FRANCISCO, CALIFORNIA.

HARNESS.

SPECIFICATION forming part of Letters Patent No. 226,241, dated April 6, 1880.

Application filed September 2, 1879.

To all whom it may concern:

Be it known that I, PHILIP S. MILLER, of San Francisco, in the county of San Francisco and State of California, have invented certain
5 new and useful Improvements in Harness; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to certain improvements in the construction and manufacture of
10 what is known in the harness trade as the "buckle-piece or tug for hip-strap."

The invention consists, essentially, in a tug-frame made of metal and of a peculiar form; and, further, in a novel construction and combination, with the tug-frame and the strap connecting therewith, of a stud or tongue serving
15 as a substitute for a buckle.

The accompanying drawing represents the manner of carrying out my invention, and the
20 figure represents a perspective view of the tug-frame, with the tug and hip straps shown in dotted lines.

The tug-frame A is made in one piece of metal, and is provided with rings *a*, for the attachment of the braces or straps which support the hip-strap. These rings *a* project from
25 opposite sides or edges of the tug-frame, as shown in the drawing.

The tug-frame A is provided with overhanging ribs or flanges *d*, which extend inward toward each other, and are of a length and width sufficient to confine the end of the strap, and serve as a substitute for the ordinary loop or keeper commonly used in connection with
35 a buckle.

At the upper end of the tug-frame is a loop, *f*, through which the tug or strap passes. This loop *f* is made in one piece with the tug-frame, and is therefore stationary and rigid.

In the flat part of the tug-frame, between
40 the flanges *d* and the loop *f*, is a slot, *s*, in which works a stud, pin, or tongue, *J*, which serves as a substitute for the tongue of a buckle. The stud *J* is provided, about mid-way of its length, with a circular flange or
45 disk, *i*, which slides on the tug-frame, on either side of the slot *s*, and holds said stud in place.

In using this tug-frame the braces from the hip-strap are connected to the rings *a*, and the tug or strap from the crupper or back-strap
50 passes through the loop *f* and under the ribs or flanges *d*, as shown in dotted lines, and the stud *J* engages with one of the holes in the tug or strap and with the edge of the loop *f*, and thus serves in lieu of a buckle and tongue.
55

What I claim as new, and desire to secure by Letters Patent, is—

1. A tug-frame, A, made in one piece of metal, and provided on its end or sides with a ring or loop for the attachment of the breech-
60 ing-braces, and having on its upper end a loop for the passage of the strap, and serving as a stop for a pin or tongue which engages with one of the openings in the tug or back-strap, substantially as herein described.
65

2. The combination of the tug-frame A, stud *J*, and stationary loop or stop *f*, substantially as shown and described.

3. The combination, with the tug-frame having a slot in its back, of the pin or tongue *J*,
70 and a suitable stop for limiting the movement of said pin or tongue, substantially as described.

PHILIP S. MILLER.

Witnesses:

THOMAS HAGERTY,
MENZO SPRING.