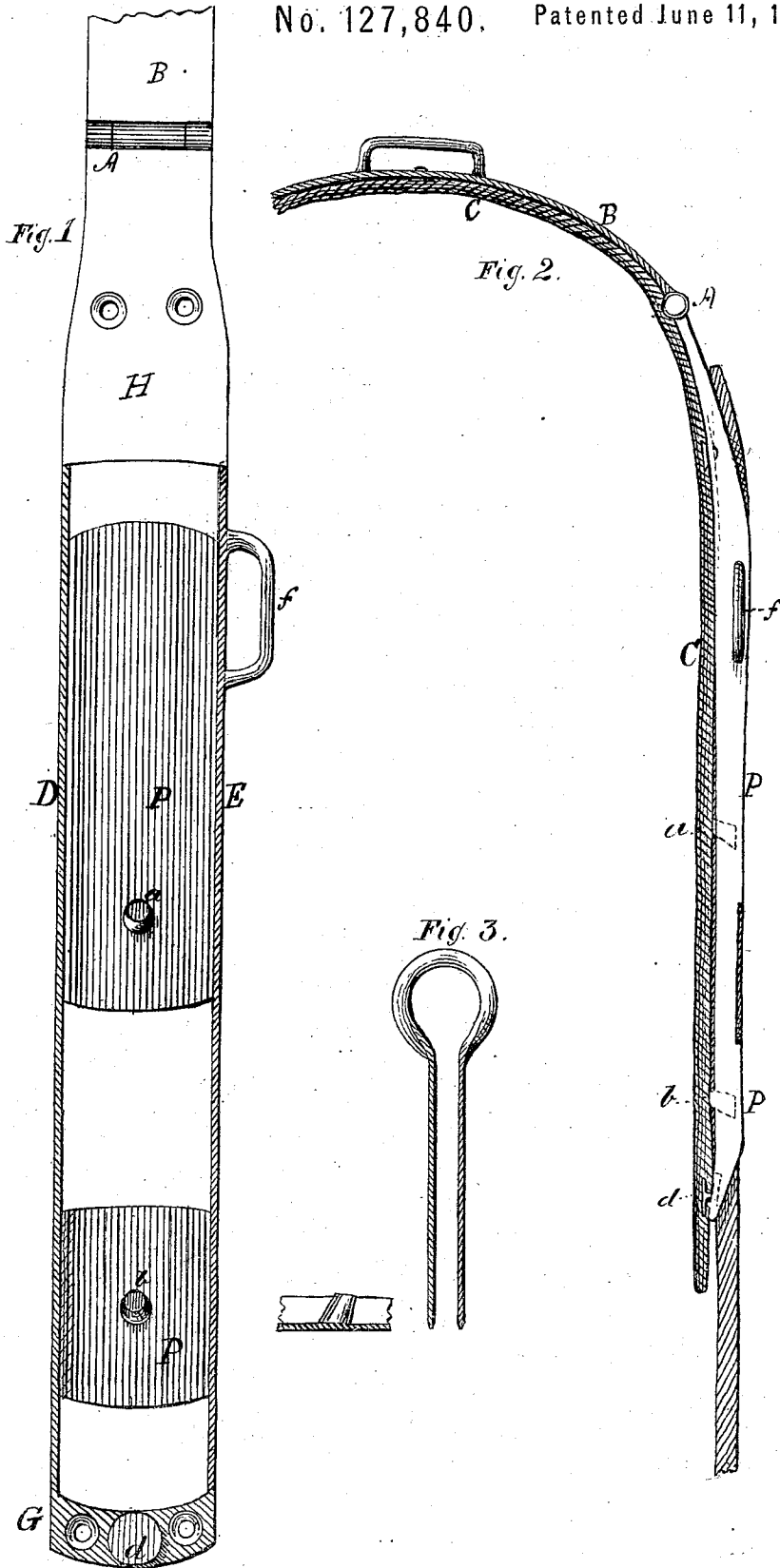


N. BOTSFORD.
Tugs for Harness.

No. 127,840. Patented June 11, 1872.



Witnesses,
H. P. K. Peck
Calvin Cole

Nathan Botsford
Inventor

UNITED STATES PATENT OFFICE.

NATHAN BOTSFORD, OF LOCKPORT, NEW YORK.

IMPROVEMENT IN TUGS FOR HARNESS.

Specification forming part of Letters Patent No. 127,840, dated June 11, 1872.

To all whom it may concern:

Be it known that I, NATHAN BOTSFORD, of Lockport, in the county of Niagara and State of New York, have invented a new and useful Improvement in Tugs for Harness; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 represents the inner side of my tug. Fig. 2 represents the upper edge of the same with the pad and breast-collar attached, a portion of the latter being removed; and Fig. 3 represents a clip.

My present invention relates to a useful improvement upon the hame-tug for which a patent was granted to me June 14, A. D. 1870. In the specification of that patent my metallic hame-tug is described as having such a curved form as to prevent chafing or galling the shoulder of the animal upon which it is used. It was provided with several loops and two hinged angular buckle-tongues, by means of which the necessary parts of the harness were fastened to the tug. In the present invention I employ the curved metallic tug, provided with two or more loops, as represented in the drawing, and instead of the hinged tongues or buckles I use studs *a b*, which are cast upon and with the face-plates *P P*, whereby the construction of the tug is greatly simplified, strengthened, and cheapened, and all the advantages resulting from dividing the draft or strain upon the trace equally between two supports or tongues which are in the central longitudinal line of the trace are still availed of. The front loop *A* is provided for connecting the hinged breast-strap *B* to the tug. The strap *B* may be a thin flexible metal strap provided with a shoulder pad or lining, *C*. This pad may be made to extend across the breast of the animal and rearward to the studs *d*, upon the heads of which the pad can be but-

toned. The tug is made with two face-plates, *P P*, upon its outer side, each of which is provided with a stud, and the trace is held with these studs, which enter holes made for the purpose, as represented in Fig. 2. The two flanges, *D E*, which form edges of the tugs, and form a shield for the trace, are connected at their ends by the plates *G H*, which are upon the inner side of the tug, as represented in Fig. 1.

When my improved tug is to be used with hames the clip represented in Fig. 3 will be riveted to the plate *H*. The loop *f* is arranged in the proper position to fasten the neck-strap for supporting the tug and its appendages. The trace can readily be attached and detached by loosening the pad *C* at the button *d*, and when it is inserted between the flanges *D E* and the studs enter the holes made for the purpose it will be supported on the inner side by the plates *G H*, and its outer side will be embraced by the plates *P P*.

From the foregoing description it will be understood that my metal tug is equally well adapted for both the ordinary hame-collar and the breast-strap collar; also that it embraces and includes, as a single casting, all those elements or features which best adapt it for the purpose designed.

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

The metallic tug *P D*, hinged to the breast-strap at *A*, as described, and provided with studs *a*, *b*, and *d*, substantially as and for the purpose set forth.

In testimony hereof I have hereunto set my hand this 17th day of November, A. D. 1871.

NATHAN BOTSFORD.

Witnesses:

H. P. K. PECK,
CALVIN COLE.