

## UNITED STATES PATENT OFFICE.

JOEL L. HOYT, OF PORT JERVIS, NEW YORK.

## SHAFT-TUG FOR HARNESS.

Specification of Letters Patent No. 5,160, dated June 19, 1847.

To all whom it may concern:

Be it known that I, Joel L. Hoyr, of Port Jervis, town of Deerpark, county of Orange, and State of New York, have invented a new and useful Improvement on Shaft-Tugs; and I do hereby declare that the following is a full, clear, and exact description of the construction of the same, reference being had to the annexed draw-10 ings, making a part of this specification, in which-

Figure 1 is a perspective view. Fig. 2 intended to represent the inside with the flare. Fig. 3 a longitudinal form, and Fig. 4 giving

15 an end view.

Letter A Fig. 1 strap from the saddle Letter A Fig. 1 strap from the saddle (or pad) passing under loop, B, over the barrel C, under loop, D, to E, for the girth, when the tug is on the right side of the 20 harness. F, loop to receive strap from the breeching more fully represented by K at Fig. 3. A Fig. 3, strap from saddle to loop B, also strap from loop D to E for the belly band. R iron in the shaft M N Fig. belly-band. R, iron in the shaft M, N, Fig. 25 3, against which the tug will rest when holding back by strap from K to F. G, Fig. 4, strap from saddle (or pad) passing under loop B around the under side next the horse by H and passing under loop D 30 to I for the belly-band, when the tug is on the right side of the horse as in Figs. 1 and 4, one strap passing upon the outside of the barrel and the other strap passing upon the under side or next the horse, each serv-

35 ing the same purpose according to fancy. C, Figs. 1 and 3 the length of the barrel according to the different heft of harness. Loops B and D Figs. 1, 3, and 4 standing out from the barrel a sufficient space to re-40 ceive the strap in a flat condition. P, Figs. 1, 2, and 3 represent the inside of the barrel of sufficient size to receive the shaft.

As letter C Figs. 1 and 4 represent the outside or side from the horse, so does letter 45 O, of the same figures represent the under

side or side next the horse.

Loops B and D Fig. 4 are not directly opposite, for the convenience of passing the strap around either side of the barrel according to fancy. Loop F Fig. 4 about 50 midway (though not essential) between loops B and D.

Letter F Figs. 2 and 4 represents the loop projecting from the barrel sufficiently to receive a strap from the breeching with- 55

out producing any friction upon the shaft. Letter P, Fig. 2, not only represents the inside of sufficient size to receive the shaft, but also the flare of the barrel as being sufficient to allow the shaft to move with 60 freedom for convenience, or safety in time of accidents.

From the representation in Fig. 3 it is apparent that the shaft is permanently held in its proper position either in ascending 65 or descending a hill, also from the representation in Figs. 1 and 4 in which the strap passes half way around the outside or under side of the barrel through the loops sufficiently tight to keep the shaft in its proper 70 position. Letters s on Figs. 1, 2, and 3 representing the bead on each end of the barrel passing around the outside thereof cooperating with the loops in retaining the strap in its proper position (though not 75 essential) but added in part for fancy.

For the foregoing specified shaft-tug I would use wrought, cast, or malleable iron or brass or any other metallic substance which will produce the requisite strength 80

and durability.

What I claim as my invention and desire

to secure by Letters Patent is-

An improved shaft-tug for single harness which will be more durable and safe as 85 herein described, using for that purpose any metallic substance or compound which will produce the requisite safety and durability. JOEL L. HOYT.

Witnesses:

ALEX. T. JOHNSON, CHAS. HARDENBERGH.