(Model.)

W. B. BROOKS.

SHAFT TUG.

No. 257,546. Patented May 9, 1882.

Fig. 1.

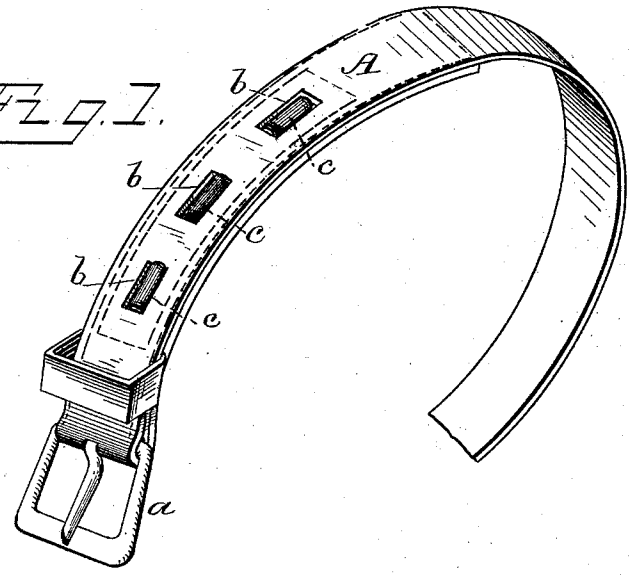


Fig. 2.

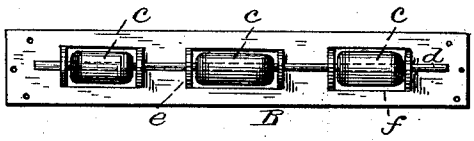
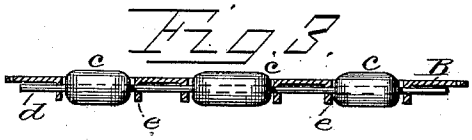


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM B. BROOKS, OF WEST DENNIS, MASSACHUSETTS.

SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 257,546, dated May 9, 1882.

Application filed March 18, 1882. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM B. BROOKS, a citizen of the United States, residing at West Dennis, in the county of Barnstable and State of Massachusetts, have invented certain new and useful Improvements in Shaft-Tugs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of my invention; Fig. 2, a plan view of the metallic plate, with friction-rollers connected thereto; and Fig. 3 is a longitudinal section through the plate.

The present invention has relation to that class of shaft-tugs provided with friction-rollers; and it consists in certain new and useful improvements therein, substantially as shown in the drawings and hereinafter described.

In the accompanying drawings, the shaft-tug is composed of the usual strap, A, of leather, having connected to one end a suitable buckle, *a*. The strap A has cut through it a series of elongated openings, *b*, through which protrude the periphery of friction-rollers *c*. These friction-rollers *c* are connected to a metal plate, B, by a continuous rod, *d*, which passes through the rollers and through ears *e*, extending from one side of the plate, thereby making one continuous journal for the series of rollers. The plate B is stamped or otherwise formed from sheet metal, with elongated openings *f* to correspond with the openings in the leather strap A, and the ears are formed by turning up at right angles the slitted portions of the metal plate. The plate B, with its rollers, is placed between the strap A and overlapped portion, and retained in place by sewing the leather together, as shown in Fig. 1. This is a very cheap, durable, and effective means of securing the friction-rollers to the tug, and takes off all wear of the shaft, as it is prevented from coming in contact with the leather by the friction-rollers.

A shaft-tug constructed in accordance with my invention can be produced at a very small cost, thereby bringing it within the reach of all requiring such articles.

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

1. A shaft-tug consisting of the leather strap A, provided with buckle *a* and the friction-rollers *c*, connected to a suitable plate secured between the folds of said strap, substantially as and for the purpose set forth.

2. In a shaft-tug, the combination, with the strap A, of the plate B, having ears *e*, rod *d*, and rollers *c*, connected to the strap, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM BAXTER BROOKS.

Witnesses:
JOHN E. BAXTER,
W. H. BAXTER.