

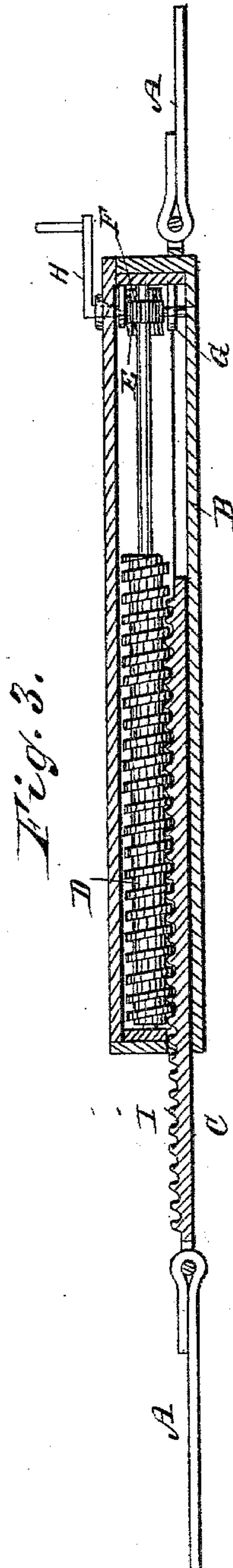
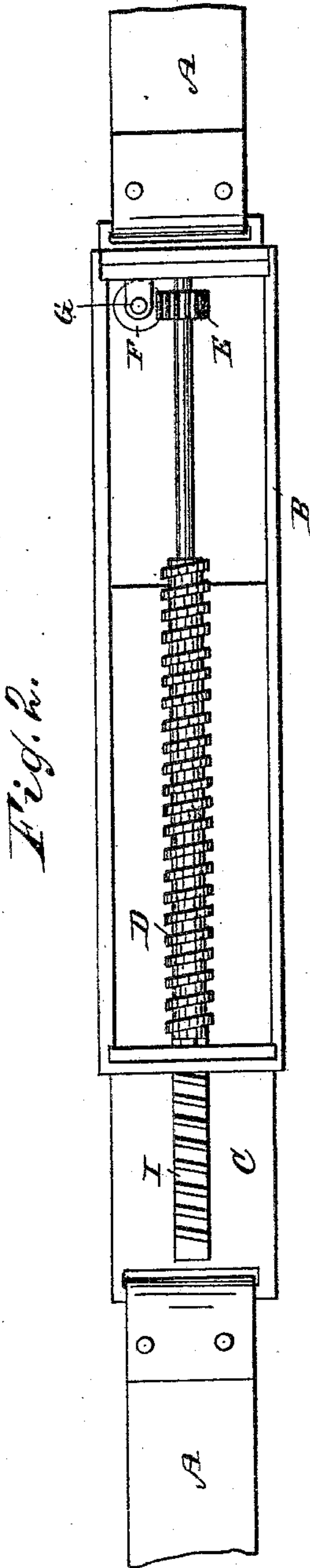
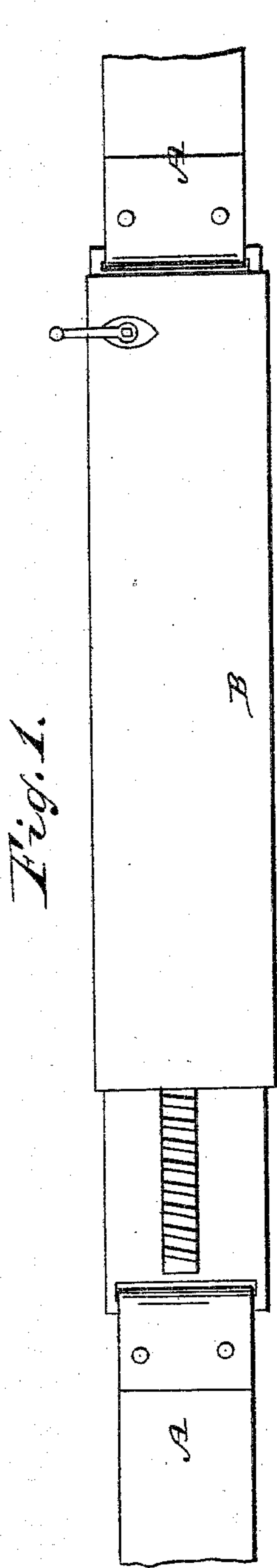
(No Model.)

N. K. PEARSON.

TIGHTENING DEVICE FOR TRUNK STRAPS.

No. 303,039.

Patented Aug. 5, 1884.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

NELS K. PEARSON, OF SAN FRANCISCO, CALIFORNIA.

## TIGHTENING DEVICE FOR TRUNK-STRAPS.

SPECIFICATION forming part of Letters Patent No. 303,039, dated August 5, 1884.

Application filed February 15, 1884. (No model.)

*To all whom it may concern.*

Be it known that I, NELS KNUT PEARSON, of San Francisco, in the county of San Francisco and State of California, have invented a new and Improved Tightening Device for Trunk-Straps, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved device for taking up the slack of trunk-straps or other straps and tightening them as much as may be desired.

The invention consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a face view of my improved device for tightening trunk-straps. Fig. 2 is a face view of the same with the top plate removed. Fig. 3 is a longitudinal sectional elevation of the same.

One end of the strap or band A is secured in some suitable manner to one end of an elongated casing, B, and the opposite end of the strap is secured on the outer end of a plate, C, adapted to slide into that end of the casing opposite the one to which the other end of the strap is fastened. The plate C is provided on its upper surface with a longitudinal worm-rack, I, which engages with a worm-gear formed on a spindle, D, journaled in the end piece of the casing.

On one end of the spindle D a worm-wheel, E, is mounted, which engages with a worm-wheel, F, mounted on a shaft, G, at right angles to the spindle D, and provided with a squared end for receiving a crank or other key, H, which is passed through an aperture

in the face of the casing. The strap is provided with a buckle for adjusting it in length before tightening it.

The operation is as follows: The strap or band A is passed around the trunk, and if desired the greater part of the slack can be taken up by means of the buckle. The slide-plate C is drawn into the casing B by turning the worm-thread of spindle D. The strap or band can be tightened as much as may be desired, and is locked in position by the worm-spindle D and the rack C. To loosen the strap the worm-spindle is turned in the inverse direction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a strap, of a casing held on one end of the same, a sliding plate fitting in the casing and secured to the opposite end of the strap, a longitudinal worm-rack on the inner surface of the sliding plate, a worm-spindle journaled longitudinally in the casing and engaging with the worm, and means for turning the worm-spindle on its longitudinal axis, substantially as herein shown and described.

2. The combination, with the casing B, of the strap A, having one end secured to the casing, the sliding plate C, secured to the opposite end of the strap, and provided with a worm-rack, I, the worm-spindle D, journaled in the casing, the worm-wheel E on the spindle D, the worm-wheel F on the shaft G, and a key fitting on the end of the shaft G, substantially as herein shown and described.

NELS K. PEARSON.

Witnesses:

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