G. W. RUNK.

BELT TIGHTENER.

No. 111,257. Patented Jan. 24, 1871.

Fig: 1.

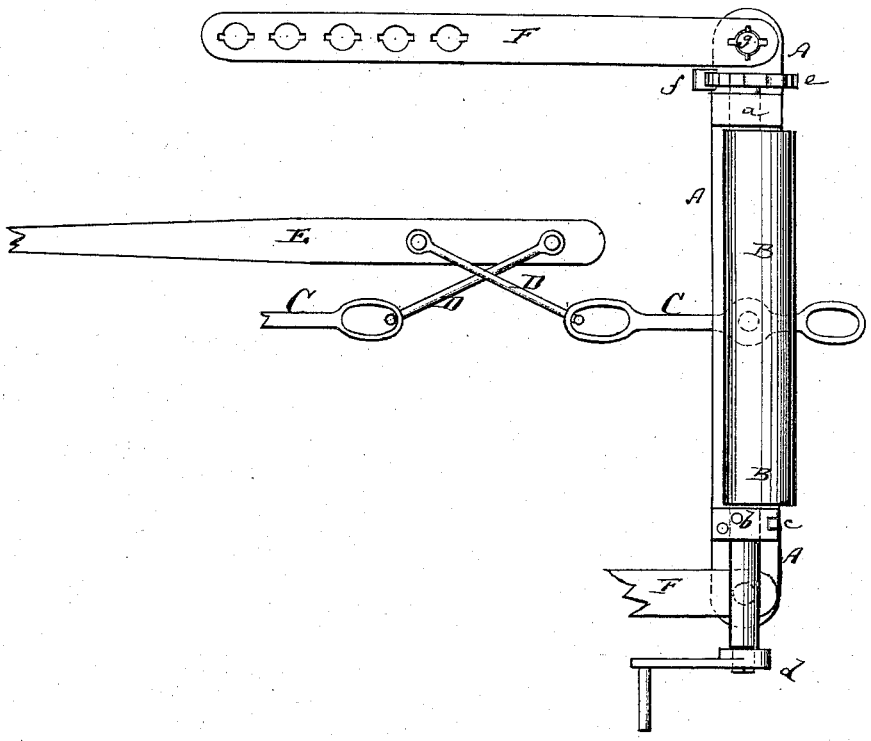
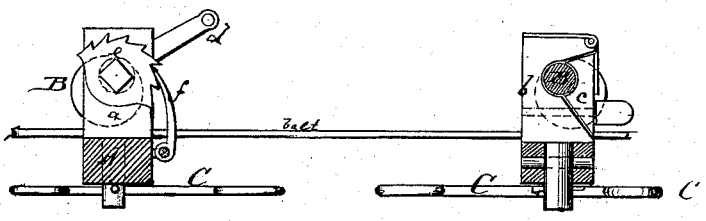


Fig: 2.



Witnesses:

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GEORGE W. RUNK, OF FRANKLIN, LOUISIANA.

Letters Patent No. 111,257, dated January 24, 1871; antedated January 14, 1871.

IMPROVEMENT IN BELT-TIGHTENERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE W. RUNK, of Franklin, in the parish of St. Mary and State of Louisiana, have invented a new and improved Belt-Tightener; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a plan or top view of my improved belt-tightener.

Figure 2 is an end view, partly in section, of the same.

Similar letters of reference indicate corresponding parts.

This invention has for its object to provide an apparatus for clamping belts while the same are on the pulleys, and for stretching the same so that they may be tightened. Belts will, by wear, gradually become slack and have to be tightened. It is, however, not always practicable to remove them, and under all circumstances it is difficult and important to tighten the belt to the proper length.

My invention consists in the use of a double clamp for taking hold of the belt and in the application of a tightener for stretching the same, as hereinafter more fully described.

A in the drawing represents a plate or bar somewhat longer than the belt is wide.

From it project the ears *a b*, which serve to support an eccentric shaft, B. One ear, *a*, is swiveled so that it can turn. The other, *b*, has a pivoted catch, *c*, which, when opened, allows the shaft to be swung out and to be turned on the ear *a*.

For applying the clamp the shaft B is swung aside, and then the belt fitted between the plate and shaft. Then the latter is replaced and locked in the ear *b*.

The shaft is provided with a crank, *d*, by means of which it is turned to clamp the belt with its eccentric portion.

A ratchet-wheel, *e*, mounted upon the shaft, receives a click, *f*, to be thereby locked when the belt is clamped.

Two clamps of the above construction are applied to each belt, and firmly secured to the same.

To the under side of each plate A is pivoted a link, C, with one or more slotted or perforated arms.

The belt is tightened by applying to the links C of the clamps the two crossed hooks, D D, that are secured to a lever, E, as shown in fig. 1. By swinging the lever E the clamps will be drawn together so as to properly stretch the belt. The two clamps are then locked together by two bars, F F, which are fastened to pins *g* that project from the ends of the plate A. The tighteners D E can then be removed to allow the cutting and lacing or riveting of the belt.

By means of this apparatus belts will be properly tightened without any danger of overstraining, whereby bearings are so frequently overheated and shafting bent or drawn out of shape, and the operation of clamping and tightening will become simple and readily performed.

Having thus described my invention,

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

1. The projecting ears *a b*, the first swiveled and the second having catch *c* to work therewith, combined with a swinging eccentric shaft, B, as and for the purpose described.

2. The arrangement of links C, cross-hooks D, and lever E, between the two belt-clamps, as and for the purpose described.

3. The combination, with the two supporting-plates A, having projections *g* on their ends, of the two apertured adjustable plates, F F, as and for the purpose described.

GEORGE W. RUNK.

Witnesses:

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