

J. M. King,
Belt Tightener.

N^o 85,012.

Patented Dec. 15, 1868.

Fig. 1.

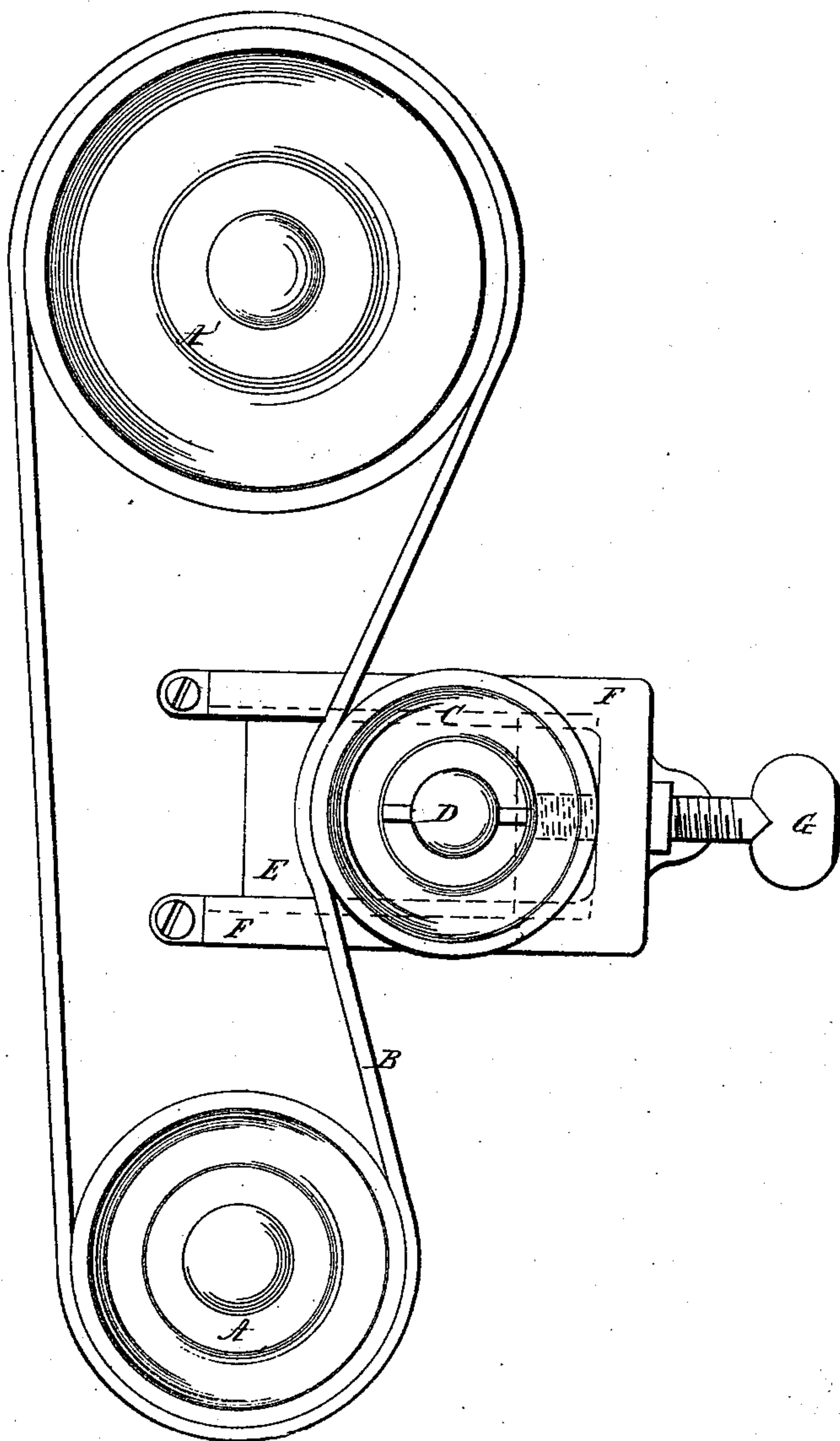
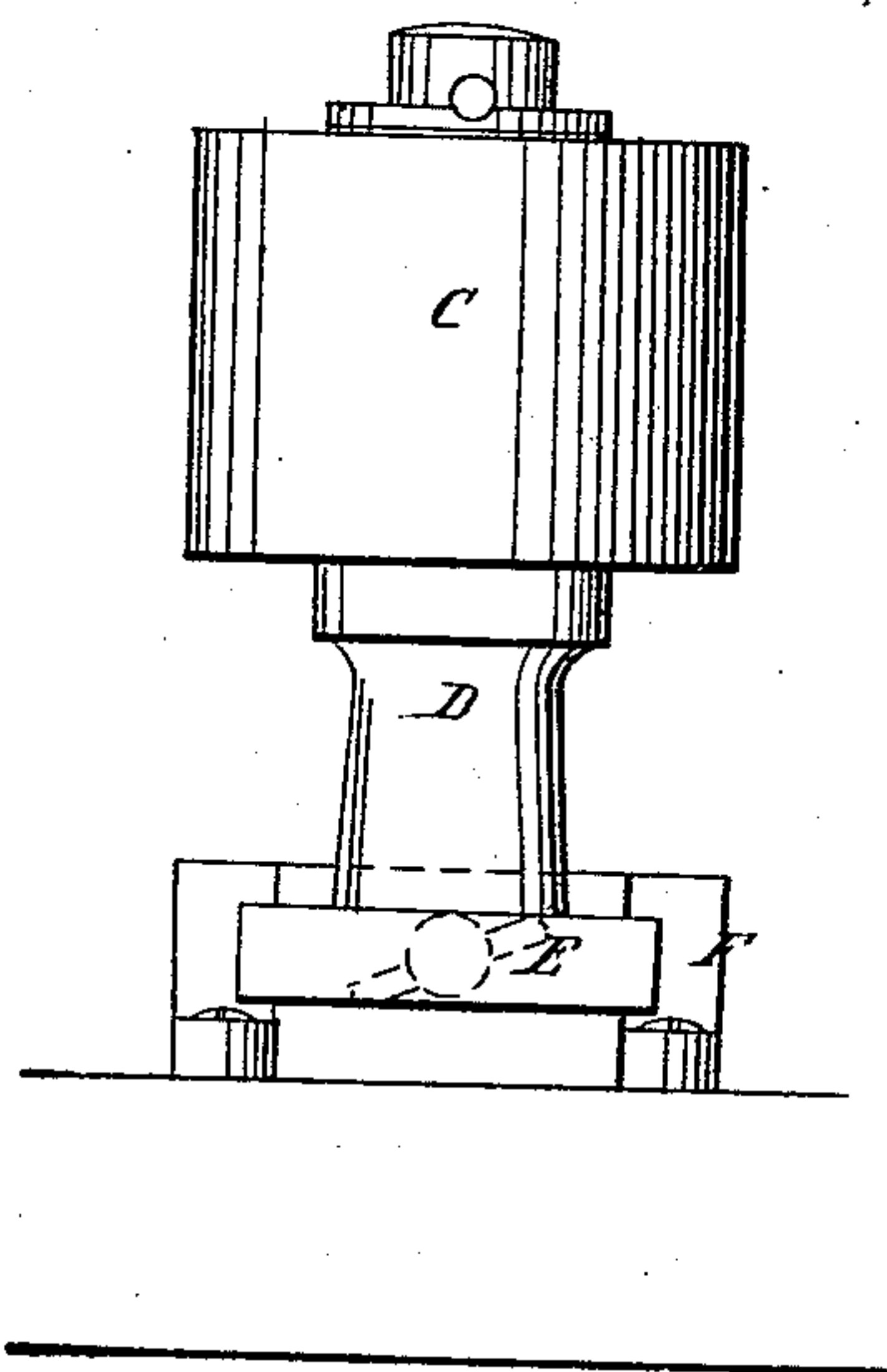


Fig. 2.



Witnesses:
B. F. Dodge.
L. Hailer.

Inventor:
J. M. King
by Dodge & Munson
Attys

United States Patent Office.

JAMES M. KING, OF QUINCY, MINNESOTA.

Letters Patent No. 85,012, dated December 15, 1868.

IMPROVED APPARATUS FOR TIGHTENING BELTS.

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, JAMES M. KING, of Quincy, in the county of Olmsted, and State of Minnesota, have invented certain new and useful Improvements in Apparatus for Tightening Belts of Machinery; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention consists in a novel arrangement of devices for tightening or adjusting the driving-belts of machinery, by means of which the belts may be quickly brought to any required tension, and which permits of this being done when the belt is in motion as readily as when at rest, all as hereinafter explained.

In the accompanying drawings—

Figure 1 is a front view of my tightener in position, being applied to a belt running over two wheels or pulleys.

Figure 2 is a front-end view of the device shown by itself.

My tightener consists of a small wheel or pulley, which bears against the face of the belt at any point between the pulleys connected by the said belt, and which is forced against it by means of a thumb-screw, thus bringing the belt to any required tension.

A A' represent two wheels or pulleys, driven, one from the other, by means of a belt, B, passing around them.

C is a roller or pulley lying across the face of the belt, and being mounted upon the stud D, which stud is rigid on and projects from the face of the flat iron plate E, as clearly shown in fig. 2.

The plate E is mounted within an iron frame, F, which

frame is U-shaped, and secured in position with its open end towards the belt C, as shown in fig. 1. The inner parallel faces of this frame are grooved longitudinally, and into these grooves is slid the block or plate E, bearing its roller, as before described.

Through the back end of the metal frame F is tapped the thumb-screw G, which bears against the plate E, and which screw, as it is set up, carries the plate E towards the belt, and forces the roller C against it, thus tightening it to any required degree, according as the screw is turned forward.

This tightener may be applied to belts running in any direction, either horizontally, vertically, or in any intermediate direction.

This device will also be found to be very useful in places where it is necessary to vary the distance between the pulleys over which the belt passes, as often happens, as, by its use, the necessity is avoided of having to "take up" or change the belt each time that the pulleys are adjusted.

The belt may be run in either direction without changing or setting the tightener, as is necessary with those made by pivoting an arm at some distance from the belt, providing its inner end with a roller, and allowing it to lie against the belt.

Having thus described my invention,

What I claim, is—

The belt-tightening device, consisting of the loose pulley C, mounted on a stud, D, attached to the plate E, arranged to slide in the frame F, and adjusted by the set-screw G or its equivalent, all substantially as herein described.

JAMES M. KING.

Witnesses:

JOHN M. COOL,
S. H. BROWN.