(No Model.)

P. H. BINET.

BELT TIGHTENER.

No. 332,867. Patented Dec. 22, 1885.

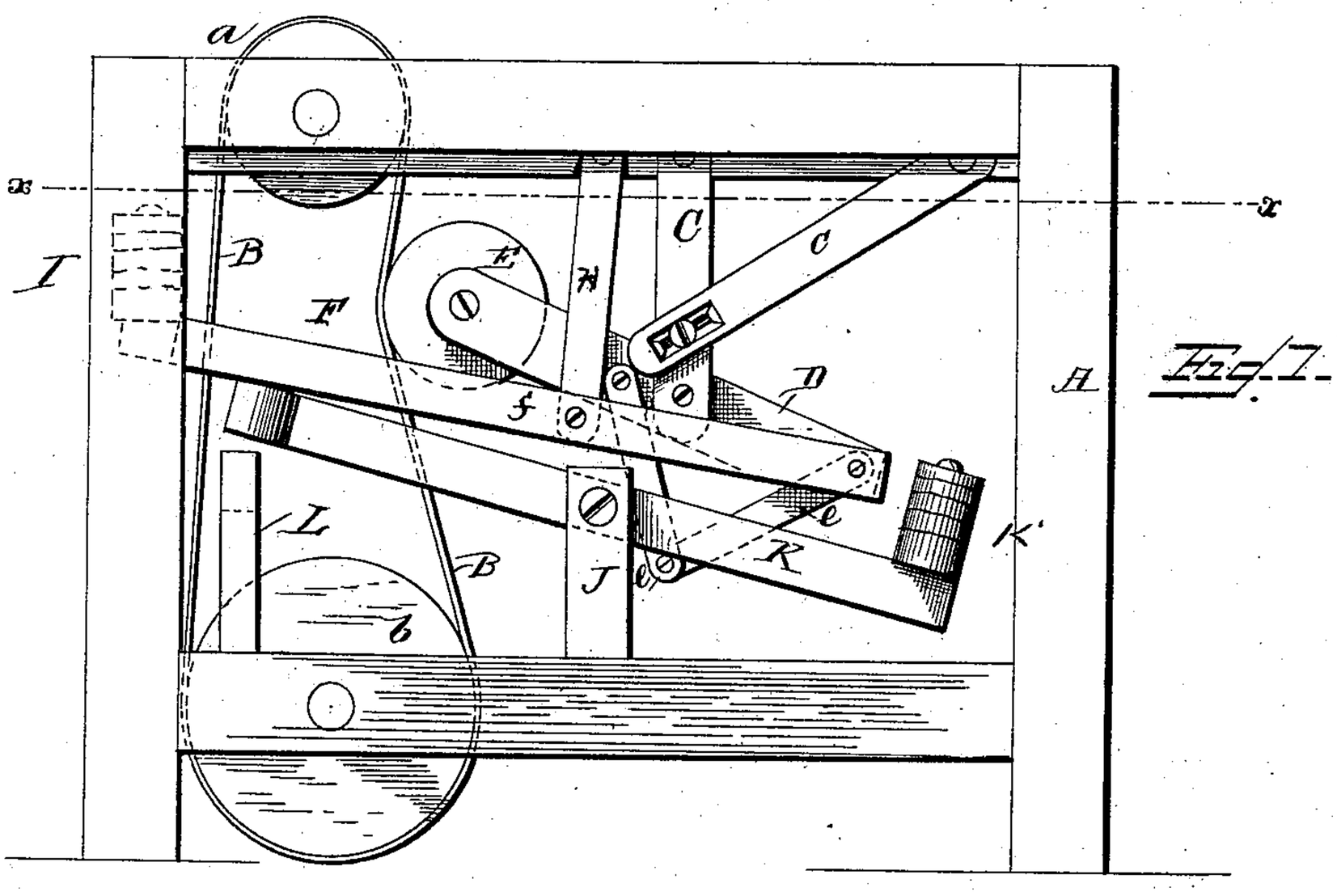

Fig. 1.

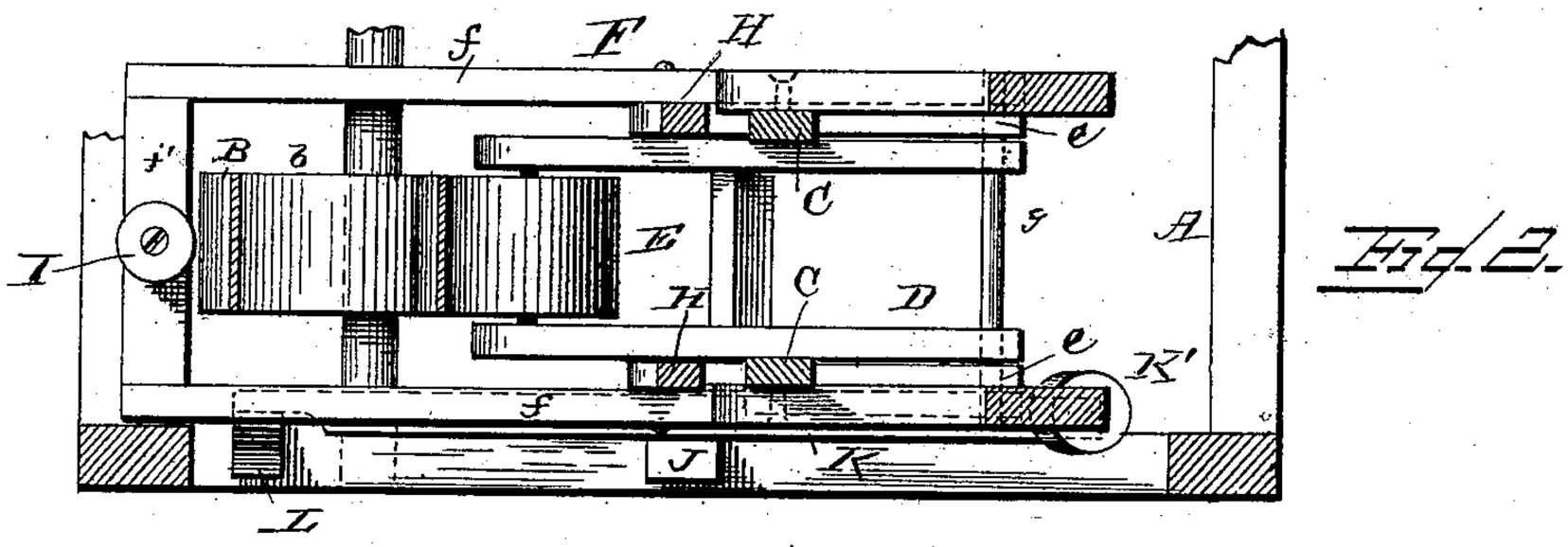

Fig. 2.

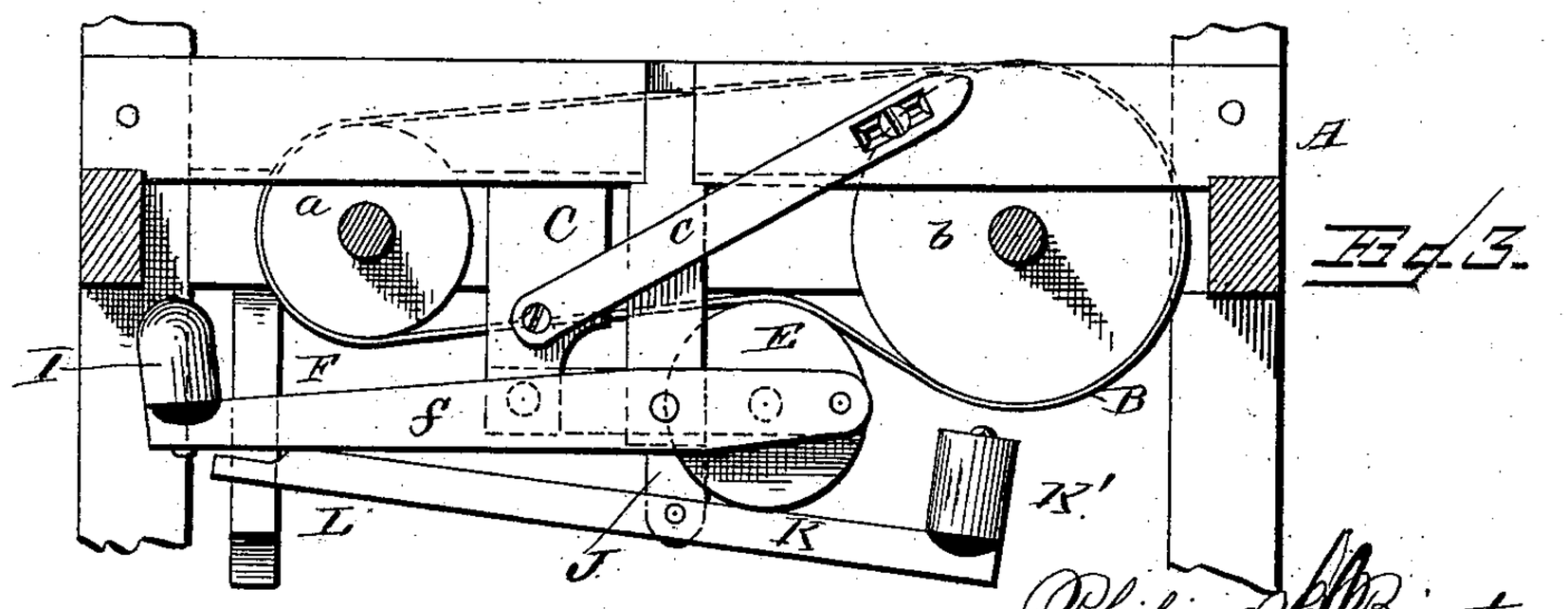

Fig. 3.

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PHILIAS H. BINET, OF EAST BRIGHTON, VERMONT.

BELT-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 332,867, dated December 22, 1885.

Application filed October 10, 1885. Serial No. 179,546. (No model.)

To all whom it may concern:

Be it known that I, PHILIAS H. BINET, a citizen of the United States of America, residing at East Brighton, in the county of Essex and State of Vermont, have invented certain new and useful Improvements in Belt-Tighteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to belt-tighteners; and it consists in the improvements hereinafter described and set forth.

In the accompanying drawings, Figure 1 is a side view of my improved belt-tightener, showing the same resting lightly upon the slat driving-belt. Fig. 2 is a sectional view taken through the line *x x* of Fig. 1, and Fig. 3 is a transverse section showing my improved belt-tightener applied to a horizontally-moving belt.

In the accompanying drawings, which illustrate my improvement, A indicates a frame, to which I have shown my improvement applied, for the purpose of better illustrating the same, said frame being provided with transverse shafts, on which are located the driving-pulleys *a* and *b*, around which passes the belt B.

In operating machinery from the drive-pulley it is desirable to have the belt pass as loosely as possible around the same without being positively slack, thereby avoiding unnecessary tension upon the belt and loss of power, my invention being designed to tighten the belt automatically without unnecessary strain upon the same.

The frame A is provided with depending hangers C, which are braced thereto by means of arms *c*, and between said hangers C are pivotally attached the side bars of a frame, D, between the ends of which is journaled the pulley E, which is adapted to bear against the driving-belt B. The frame D may be braced by bars *e e*. The end of the frame D opposite the pulley E is pivotally attached to weight-carrying frame F, which consists of side bar, *f*, and transverse cross-bars *f'*, upon which is placed a weight, I, the opposite end being pivotally attached to a cross-bar, *g*, said cross-bar also passing through the side beams of the frame D. In front of the hanger C, to the frame A is pivotally connected a depending bar, H, the lower ends of the same being secured by bolts to the side bars, *f*, of the frame F. By this construction it will be seen that the weight I at the end of the frame F will have a tendency to depress the end to which it is attached and raise its opposite end, which is attached to the pulley-carrying frame D, so as to bring the pulley in contact with a belt, thus forcing one side of the belt in so as to take up the slack. The weight I may be varied by adding to or taking off sections of the same. An excessive movement of the frame F will be prevented by providing a block or portion of the frame, so that the weight I will strike against the same.

Under the belt-tightener, hereinbefore described, is pivotally attached a bar, J, to which a lever, K, is pivoted, and said lever is provided at one end with a weight, K', the opposite end being adapted to engage, when free, with one of the side bars, *f*, of the frame F, so as to hold the end of said frame in a raised position, so that the pulley E of the frame D will only come lightly into contact with the belt, as shown in Fig. 1. When it is desired to tighten the belt B, the end of the pivoted bar K opposite to which the weight is attached is depressed, so as to engage with a spring-catch, L, thus allowing the end of the frame F which carries the weight I to be depressed, so as to bring the pulley E in contact with the belt.

When the belt B is idle or running light, the parts will be in the position as shown in Fig. 1, and when the weighted end of the frame F is depressed the frame D will be brought nearer a horizontal position, thus causing the pulley to bear upon the belt, so as to tighten the same around the pulleys *a* and *b*.

I claim—

In a belt-tightener, the frame D, provided with a pulley adapted to be moved so as to engage with the belt, a weighted frame pivotally attached thereto, in combination with the bar K, carrying at one end a weight, the opposite end being adapted to engage with a spring-catch, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

PHILIAS H. BINET.

Witnesses:

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