W. SELLERS.

Belt-Tighteners.

No. 145,908. Patented Dec. 23, 1873.

Fig. 1.

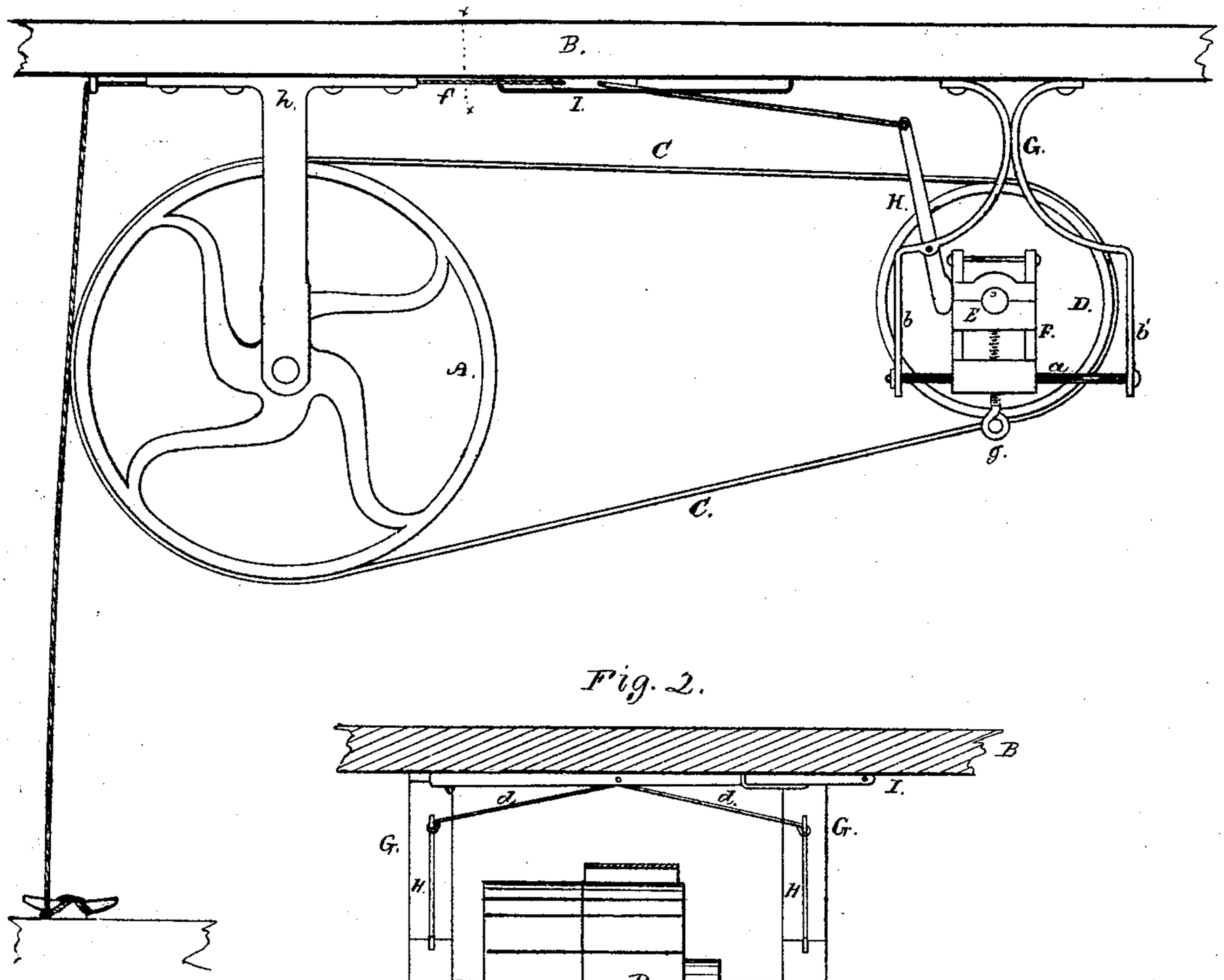
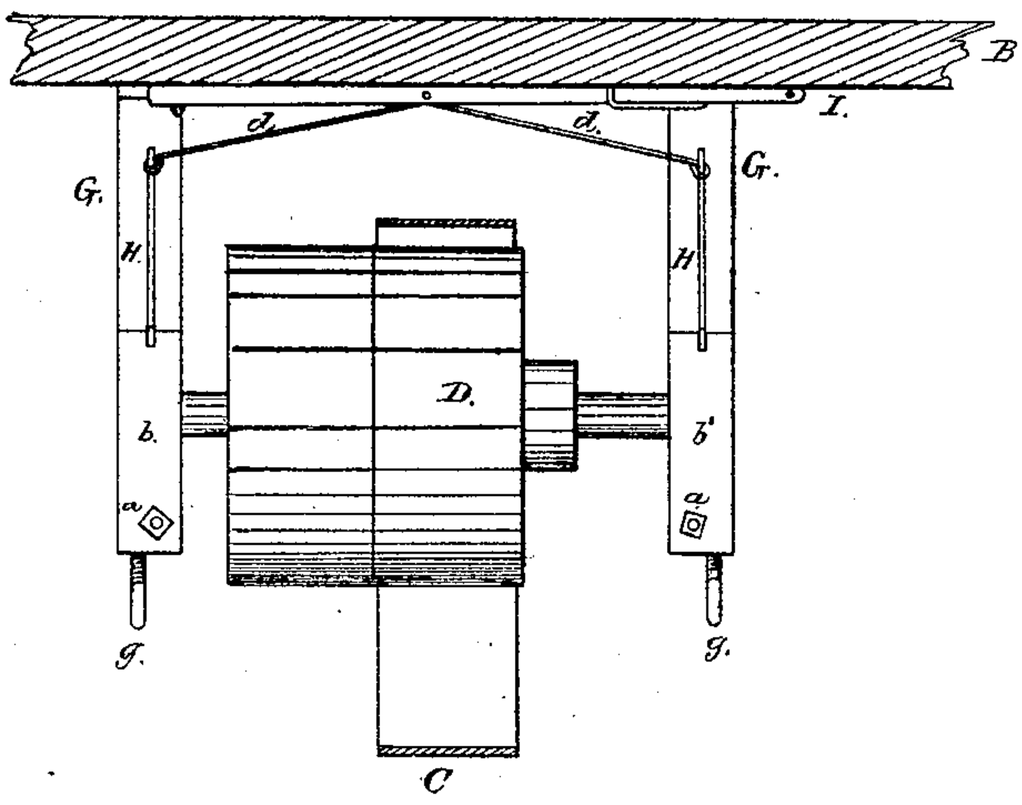


Fig. 2.



Witnesses.

Geo Gray.

F. C. Hale.

William Sellers

by his attorney.

A. P. Hale

UNITED STATES PATENT OFFICE.

WILLIAM SELLERS, OF HAVERHILL, MASSACHUSETTS.

IMPROVEMENT IN BELT-TIGHTENERS.

Specification forming part of Letters Patent No. **145,908**, dated December 23, 1873; application filed October 15, 1873.

To all whom it may concern:

Be it known that I, WILLIAM SELLERS, of Haverhill, in the county of Essex and State of Massachusetts, have invented an Improved Belt-Tightener, of which the following is a specification:

In the accompanying drawing, Figure 1 denotes a side elevation of an apparatus embodying my invention; and Fig. 2, a vertical section of the same on line *x x*, Fig. 1.

The object of my invention is to provide a simple, ready, and effective means of regulating the tension of a belt upon its drums or pulleys, as occasion may require; and my invention consists in supporting the journals of the driven pulley in sliding boxes or supports, and applying thereto mechanism, as hereinafter described, whereby such pulley may be moved outward or away from the driving-pulley to any desirable extent, so as to produce any required amount of tension of the belt; also, in making the shaft of the driven drum or pulley adjustable vertically, so as to maintain the drum in the requisite position to cause the belt to run true and evenly on the same.

In the drawing, A denotes the main or driving drum, whose shaft is supported in hangers *h h*, depending from the under surface of the top of the frame B. C is an endless band or belt extending around the drum A, and another drum or pulley, D, whose journals are upheld in boxes or bearings E E, provided with housings F F. These boxes are, respectively, supported on rods *a a*, and so as to slide horizontally thereon, such rods extending through and being supported by the furcated arms *b b* and *b' b'* of the hangers G G, which are secured to the frame B, as shown in Fig. 1. The mechanism for determining or regulating the tensile movement of the sliding drum consists of two cammed levers, H H, which are, respectively, pivoted or hinged near their lower ends to the arms *b* and *b'* of the hangers G G, the lower cammed ends of these levers bearing against the boxes or their housings, as shown in Fig. 1. These levers are connected at their upper ends by a rod, *c*, and also by rods *d d* to a lever, I, which is pivoted at one end to the frame B, the outer end of the lever I being connected with a chain or cord, *f*, extending along the under surface of the top of the frame, and is belayed or secured to a pin affixed in any desirable position. By laying hold of this cord and drawing on the same, the lever I will be moved in its fulcrum, so as to cause the cammed levers H H to be simultaneously forced against the boxes or housings thereof, and thereby impel the same outward to any desired extent to produce the requisite tension of the belt. The boxes or journal-bearings E E are so applied to their housings as to be capable of being moved vertically therein in order to maintain the drum in the requisite position to insure a true and even running of the belt. To effect this, each of the bearings is made to rest upon an adjusting rod or screw, *g*, which extends up through the bottom of each of the housings. By turning these screws in the proper direction, the boxes of the shaft may be either raised or lowered, so as to bring the drum into its normal or desired position.

Having described my invention, what I claim is—

The combination, with the main or driving drum A and the endless belt C, of the drum D, supported in sliding boxes, and provided with means, as described—viz., the cammed levers H H and their operating mechanism—whereby the latter drum may be forced outward, so as to produce any desired tension of the belt, as set forth.

WILLIAM SELLERS.

Witnesses:

F. P. HALE,

F. C. HALE.