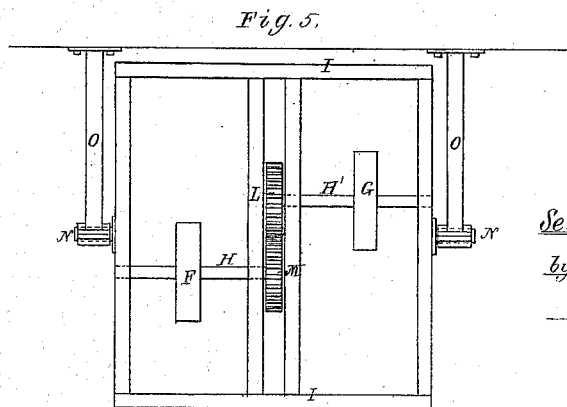
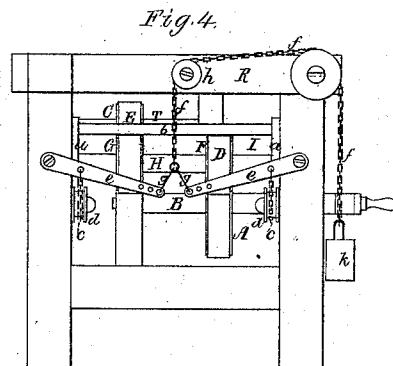
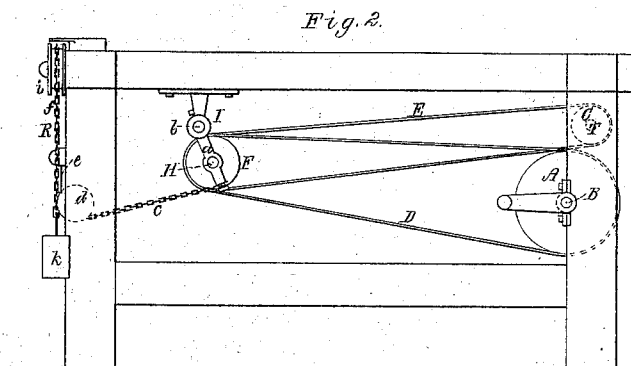
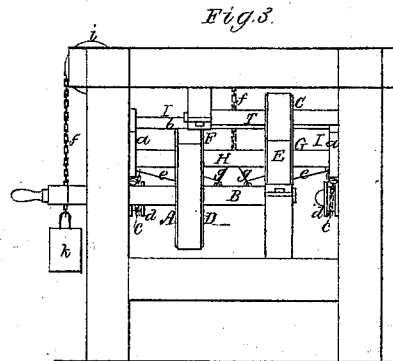
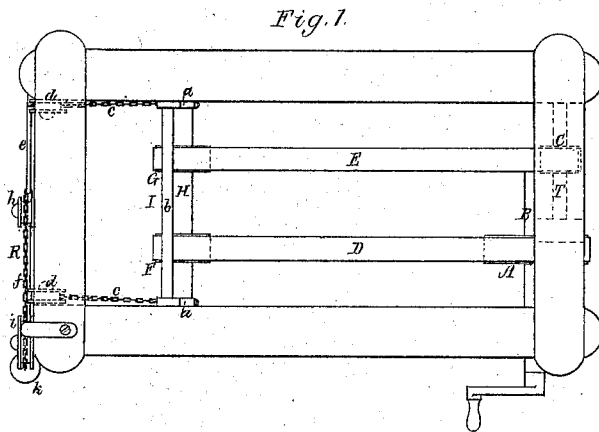


S. E. JEWETT.
Belt-Tension Apparatus.

No. 141,004.

Patented July 22, 1873.



Witnesses
S. W. Clegg
L. O. Holden

S. E. Jewett.
by his attorney,
R. A. Lutz

UNITED STATES PATENT OFFICE.

SEWELL E. JEWETT, OF HAVERHILL, MASSACHUSETTS.

IMPROVEMENT IN BELT-TENSION APPARATUS.

Specification forming part of Letters Patent No. **141,004**, dated July 22, 1873; application filed June 2, 1873.

To all whom it may concern:

Be it known that I, SEWELL E. JEWETT, of Haverhill, of the county of Essex and State of Massachusetts, have invented a new and useful Belt-Tension Mechanism; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a front elevation, and Figs. 3 and 4 opposite end views, of two driving and driven pulleys, their belt or belts, and the tension mechanism thereof, to be hereinafter explained.

The object of the invention is not only to maintain tightness of the driving belt or belts, but to limit or vary the tension or friction of the belt or belts on their pulleys, as circumstances may require. My invention, by using a lighter or heavier weight, *k*, of its draft mechanism, hereinafter described, enables the tension of the belts to be regulated so as to prevent more power being consumed than a party may be entitled to use from time to time, any increase of such power causing the main driving-belt to slip or slide on its intermediate shaft-pulley without driving it. Such invention is also otherwise useful or productive of advantage.

In the drawings, *A* denotes a pulley fixed on the driving-shaft *B*, and *C* is a pulley fixed on another shaft, *T*, to be driven or revolved by power first applied to the driving-shaft. Instead of a single belt to run about such pulleys in the usual way, in which case one pulley would have to be in the same plane with the other, I arrange the two pulleys *A* and *C* and their shafts *B* and *T* in manner as represented, and employ two separate endless belts, *D* and *E*, going, respectively, around the two pulleys, and two other pulleys, *F* and *G*, fixed on a shaft, *H*. The journals of the shaft *H* are supported in a pendulous or vibratory hanger, *I*, composed, as shown in Figs. 1, 2, 3, 4, of two arms, *a* and *a*, and a horizontal shaft, *b*, such arms being projected from the shaft, and the latter being supported in suitable bearings, and arranged as represented. To this hanger or its

arms there are attached two chains, *c* and *c*, which are led under and against guide-pulleys *d* and *d*, and secured to two levers, *e* and *e*, arranged as shown. Another chain, *f*, connected by links *g* and *g* with the inner ends of the levers, is extended over two pulleys, *h* and *i*, and has a weight, *k*, attached to its lower end, all being as represented. The said weight, with the chains and levers, guide-pulleys, and links, I term the draft mechanism *R*, one purpose of which is to pull the hanger outward, so as to keep both belts tight upon their pulleys. However, such belts may stretch either by use or through changes of temperature, or by other causes, the draft mechanism insuring uniform tension on the belts.

When the shaft of the pulley *C* to be driven is not on the same side of the hanger with the driving-pulley *A*, but has to be arranged on the opposite side thereof, I make use of a differently-constructed hanger, or, in other words, a rectangular frame hung or pivoted at the middles of its two opposite ends. This hanger I provide with two separate shafts, connected by gears, and arranged at equal distances from the axis of revolution of the hanger. One of the pulleys *F* and *G* I fix on one of such shafts, and the other pulley *I* also fix on the other shaft, all being as shown in Fig. 5, in which *F* and *G* denote the pulleys; *H* and *H'*, the shafts; *L* and *M*, the connection-gears; *N* and *N*, the pivots of the hanger; and *O* and *O*, its supporting-arms. The draft mechanism is to be applied to the lower part of the said hanger *I*.

I claim—

The combination of the vibratory hanger *I*, pulleys *F* and *G*, draft mechanism *R*, auxiliary belt *E*, main belt *D*, and the driving and driven pulleys *A* and *C*, all being arranged and applied together substantially in manner and to operate as specified, the said draft mechanism *R* consisting of the chains *c* and *c*, levers *e* and *e*, guide-pulleys *d* and *d*, links *g* and *g*, and weight *k*, all arranged as set forth.

SEWELL E. JEWETT.

Witnesses:

R. H. EDDY,
J. R. SNOW.