

H. E. WALTZ.
BELT TIGHTENER.
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1,293,264.

Patented Feb. 4, 1919.

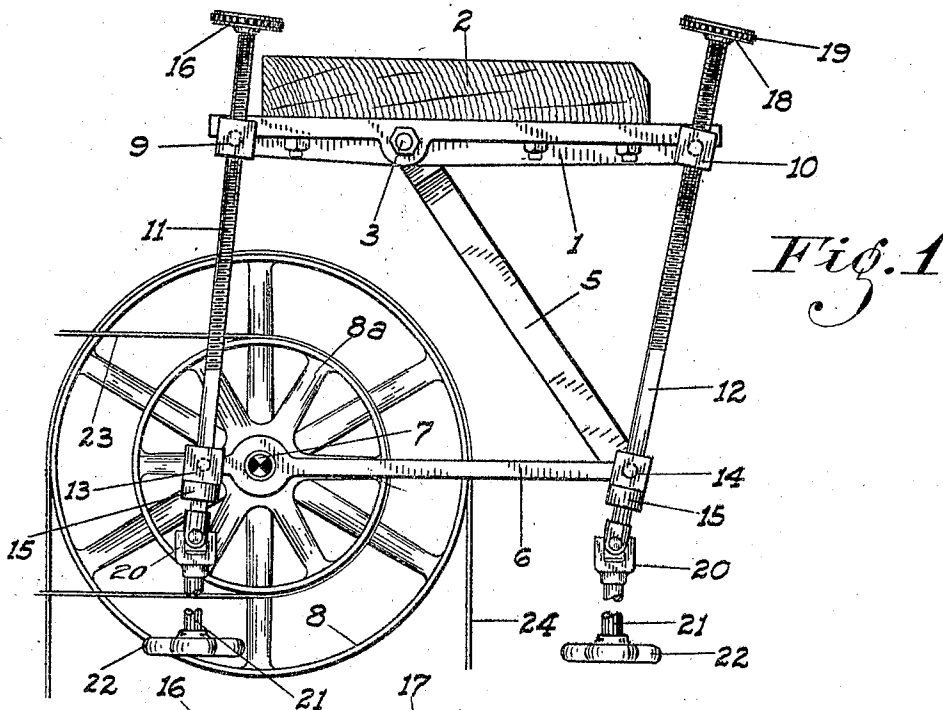


Fig. 1

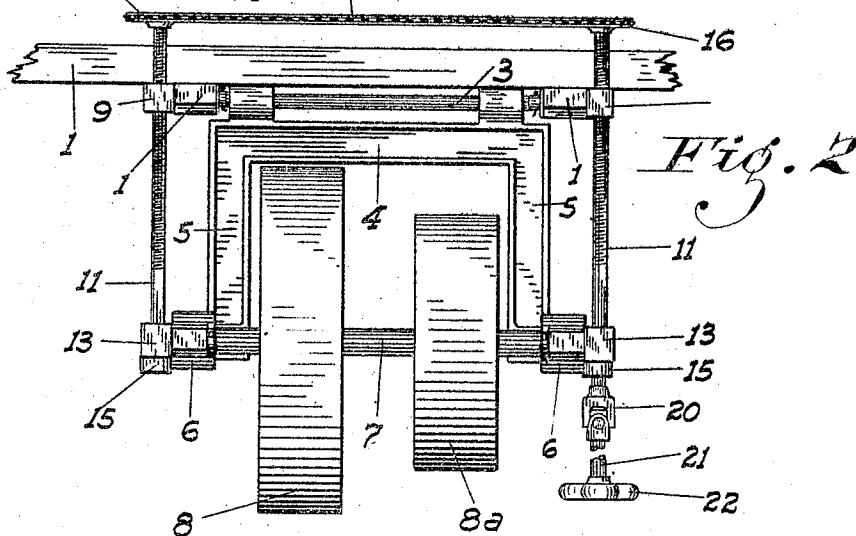


Fig. 2

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BELT-TIGHTENER.

1,293,264.

Specification of Letters Patent.

Patented Feb. 4, 1919.

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To all whom it may concern:

Be it known that I, HERBERT E. WALTZ, a citizen of the United States, residing at Stockton, in the county of San Joaquin, State of California, have invented certain new and useful Improvements in Belt-Tighteners; and I do declare the following to be a clear, full, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in tighteners for belts of the type used in machine shops, and manufacturing plants, and particularly to a combination belt tightener and shaft hanger, the principal object of the invention being to produce a device by means of which the belts of the pulleys on the countershaft may be tightened without the necessity of taking the belt off or even stopping the machinery, and which will tighten the belts whether they run horizontally or vertically from the pulleys.

A further object has been to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects, I accomplish by means of such structure and relative arrangement of the parts as will fully appear by a perusal of the following specification and claims.

On the drawings, similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation of the complete device, as installed with two pulleys and belts, one running horizontally and the other vertically.

Fig. 2 is a front elevation of the device, with the belts removed from the pulleys.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 designates the hanger base which is suitably secured to a ceiling beam or joist 2, the ends of the members 1 projecting beyond the edges of the joist for a certain distance. There are a pair of these base members suitably spaced apart or they may be cast as a unit.

Pivoted to the base 1 on a shaft 3 is a transverse bar 4 having arms 5 depending downwardly therefrom, which normally hang at an angle of about forty-five degrees. At the lower end of these arms are pivotally

mounted arms 6 which normally extend horizontally, the outer ends being connected by a shaft 7 on which the pulleys 8 and 8^a are mounted.

Blocks 9 and 10 are swivelly mounted to the outer edges of the extensions of the base members 1. These blocks are tapped for the reception of threaded rods 11 and 12, respectively, which rods pass through blocks 13 and 14, the blocks 13 being swivelly mounted at the outer ends of the arms 6, and the blocks 14 being likewise mounted at the pivoted point of the arms 5 and 6.

Collars 15 are secured to the rods 11 and 12 under the lower blocks 13 and 14 and carry the weight of the various parts. Each of the rods 11 is provided with a sprocket wheel 16 on its upper end, having a connecting chain 17 therebetween, and the rods 12 each have a similar wheel 18 and chain connections 19.

One of each of the rods 11 and 12 is also provided with a toggle or universal joint 20 under the collar 15, from which depends a rod 21 turnable by means of a hand wheel 22, located within easy reach of the operator.

Thus, it will be seen, that by turning the hand wheel connected to one of the rods 12, both will be turned and the pivotal point of the arms 5 and 6 will be raised, thereby tightening the horizontal belt 23 on the pulley 8^a.

Similarly the turning of the rods 11 will raise the shaft 7 and the vertical belt 24 on the pulley 8 will be tightened.

Thus, from the foregoing description, it will readily be seen that I have produced such a device as substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice, such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:—

1. A shaft hanger and belt tightener comprising a base adapted to be secured to a ceiling joist, a forked member pivotally mounted thereto and depending therefrom, an arm pivotally mounted on each of the

outer ends of the forked member, a shaft
having pulleys thereon connecting the outer
ends of the arms, means whereby the pivotal
point of the forked member with the shaft-
5 holding arms may be swung upwardly about
the upper pivotal point of the forked mem-
ber as an axis to tighten a horizontal belt on
one of the pulleys, and means whereby the
shaft retaining arms are swung on their
10 pivotal point as an axis to raise the shaft
and tighten a vertically hung belt on the
other one of the pulleys, each of said tight-
ening means being independent in action
from the other.

15 2. A shaft hanger and belt tightener com-
prising a base adapted to be secured to a
ceiling joist, a forked member pivotally
mounted thereto and depending therefrom,

an arm pivotally mounted on each of the
outer ends of the forked member, a shaft 20
having pulleys thereon connecting the outer
ends of the arms, means whereby the shaft
may be moved horizontally to tighten a
horizontal belt on one of the pulleys, and
means whereby the shaft may be moved 25
vertically to tighten a vertical belt on the
other one of the pulleys, such means being
operable from the floor below the ceiling on
which the hanger is secured.

In testimony whereof I affix my signature 30
in presence of two witnesses.

HERBERT E. WALTZ.

Witnesses:

VERADINE WARNER,
FRANK H. CARTER.