No. 608,486.

Patented Aug. 2, 1898.

O. K. SLETTO.

BELT REGULATOR.

(Application filed Mar. 31, 1898.)

(No Model.)

Fig. 1.

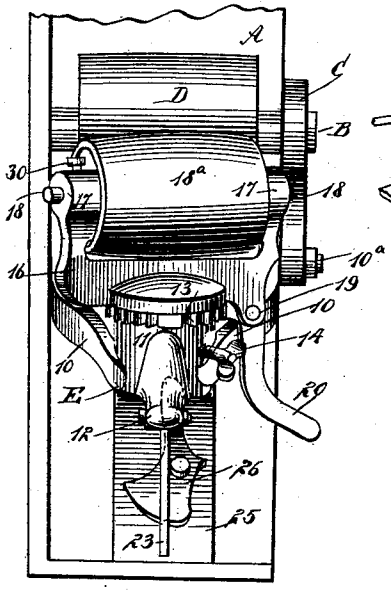


Fig. 2.

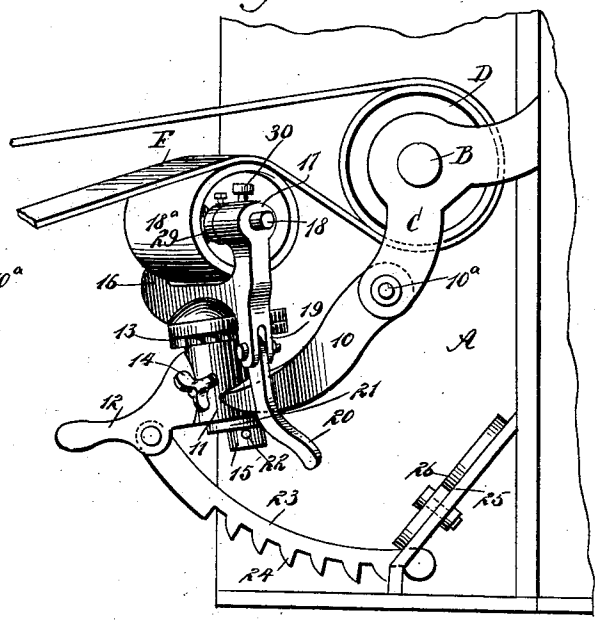


Fig. 4.

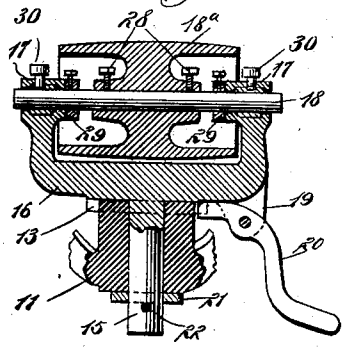


Fig. 3.

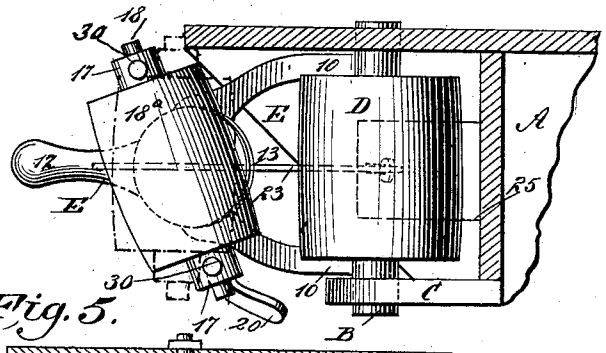
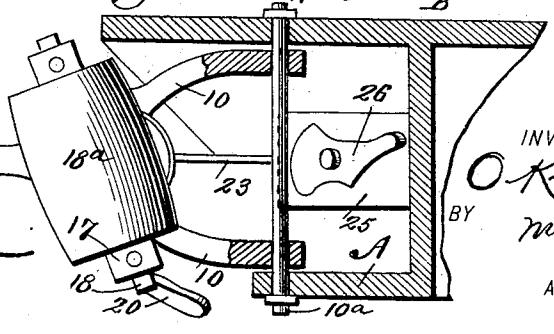


Fig. 5.



WITNESSES:

Paul Jahel

J. Redsteker.

INVENTOR

O. K. Sletto

BY

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

OSCAR K. SLETTO, OF FERGUS FALLS, MINNESOTA.

BELT-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 608,486, dated August 2, 1898.

Application filed March 31, 1898. Serial No. 675,888. (No model.)

To all whom it may concern:

Be it known that I, OSCAR K. SLETTO, of Fergus Falls, in the county of Otter Tail and State of Minnesota, have invented a new and Improved Belt-Regulator, of which the following is a full, clear, and exact description.

One object of my invention is to provide a belt-regulator especially adapted for use upon threshing-machines and engines employed to drive the same and to so construct the device that the guide-pulley or idler may be vertically and laterally adjusted relative to the drive-pulley, particularly the drive-pulley of a threshing-machine cylinder.

Another object of the invention is to construct a simple, durable, and economic device which will prevent the belt vibrating in the wind sufficiently to produce side wear and which will cause a belt leading from a cylinder below to the driving-pulley of the engine, for example, to run true and without undue friction, although the engine may be far from the threshing-machine and removed from a true belt-line.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the improved belt-regulator applied to a threshing-machine. Fig. 2 is a side elevation of the device. Fig. 3 is a plan view of the device, the frame of the threshing-machine to which it is applied being in horizontal section and the guide-pulley of the regulator being shown in different positions. Fig. 4 is a vertical section through the guide-pulley and the support for the same, and Fig. 5 is a horizontal section illustrating the manner in which the hanger of the device is attached to the machine.

A represents a portion of the frame or casing of a threshing-machine, and B the outwardly-extending end of the cylinder-shaft, upon which the drive-pulley D for the said cylinder-shaft is secured, and C represents the bracket in which a projecting end of the cylinder-shaft is mounted to turn.

E represents a substantially Y-shaped hanger comprising two diverging arms 10, which arms are attached usually one to the lower end of the bracket C and the other to the adjacent side of the machine-casing A through the medium of a pin 10^a or its equivalent, which pin is passed through both of said arms and the bracket into the casing A. In the further construction of the hanger E a tubular section or body 11 may be secured to or made integral with the arms 10 where the said arms practically connect, and a handle 12 is likewise attached to the said tubular body 11. The body 11 of the hanger is usually upright and is open at the bottom and provided with a set-screw 14, extending through the side surface. The body 11 of the hanger is provided at its upper end with a toothed annular flange 13. (Shown best in Figs. 1 and 2.)

The stem 15 of a frame 16, preferably U-shaped, is held to turn in the tubular body 11 of the hanger E, and at each extremity of the upwardly-extending members of the frame 16 a rabbeted box 17 is located, and the said boxes receive the ends of a spindle 18, to which spindle a guide-pulley 18^a is secured, or, if desired, the spindle may be fast in the frame and the pulley mounted to turn on the spindle.

At one side of the frame 16 downwardly-extending ears 19 are formed, between which ears a pawl 20 is pivoted, the said pawl being adapted for engagement with the teeth of the flange 13, so that the guide-pulley 18^a may be placed laterally in any desired position relative to the cylinder-pulley D. The stem of the frame 16 is provided near its lower end with a washer 21, and a spring-pin 22 is passed through the said stem below the said washer, as shown in Fig. 4, so as to keep the frame 16 in proper relation to the tubular section of the hanger E.

A segmental bar 23 is pivoted to the handle 12 of the hanger E, and teeth 24 are formed upon the under or convexed surface of the said bar 23. The bar 23 is arranged to enter an opening in a keeper-plate 25, suitably attached to the casing or object to which the device may be applied, and a latch 26, preferably a cam-latch, is pivoted on the said keeper, the latch being so arranged that when the toothed bar 23 has been properly adjusted

in the keeper 25 the said latch may be made to hold the bar in its adjusted position. Thus it is obvious that in addition to the lateral adjustment of the guide-pulley 18ª the said pulley may be adjusted vertically, and in the event that the engine, for example, is in true belt-line with the guide-pulley of the cylinder of a separator the guide-pulley may be dropped down out of engagement with the driving-belt F, since at that time the regulator will not be needed. The driving-belt passes around the cylinder-pulley D in the usual way, and the lower stretch of the belt engages with the upper surface of the guide-pulley 18ª, which pulley is virtually an idler.

It will be observed that the device may be attached to an engine as well as to a threshing-machine driven from the engine.

The device is exceedingly simple, durable, and economic in its construction. It is readily applied and will insure the belt running true, no matter at what angle the belt may be carried, and will also prevent the belt from flapping in a high wind, and thus prevent the belt from being unduly worn, particularly at its edges.

The pulley 18ª is preferably provided with a leather covering and, as shown in Fig. 4, is secured to the spindle 18 by set-screws 28. Collars 29 are secured upon the spindle and bear against the inner ends of the boxes 17, preventing end movement of the spindle. Each box is usually provided with a grease-cup 30.

The handle 12 enables a person to conveniently raise and lower the hanger E and particularly facilitates holding the hanger in position to admit of the adjustment of the segmental bar 23.

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

1. A belt-regulator, comprising an adjustable hanger, the said hanger being provided with a series of teeth, a guide-pulley, a support therefor mounted to turn on the said hanger, and a latch carried by the guide-pulley support and adapted for engagement with the teeth of the hanger, substantially as specified.

2. A belt-regulator comprising a hanger, the hanger being provided with a tubular section having exterior teeth, a frame mounted to revolve upon the tubular section of the hanger, a pawl carried by the frame and arranged for engagement with the teeth of the hanger, a guide-pulley mounted upon the said frame, and means for vertically adjusting the hanger, for the purpose specified.

3. In a belt-regulator, the combination, with a hanger, the hanger being provided with a tubular section and a handle between the ends of the tubular section, the said tubular section of the hanger being provided with exterior teeth and a set-screw, of a frame provided with a stem, the stem extending within the tubular section of the hanger, a guide-pulley carried by the said frame, a pivoted toothed segmental bar attached to the hanger, a keeper for the said bar, and a latch carried by the said keeper, for the purpose specified.

4. The combination, with a pulley, its bearing and a hanger pivoted adjacent to the pulley, the said hanger being provided with a tubular section having angularly-arranged exterior teeth, of a frame provided with a stem, extending within and being arranged to turn in the tubular section of the hanger, a pawl carried by the said frame, arranged for engagement with the teeth of the hanger, a set-screw extending within the tubular section of the hanger to an engagement with the said stem, a guide-pulley carried by the said frame, a keeper, a segmental toothed bar pivoted to the hanger and extending within the said keeper, and a lock-latch carried by the keeper and arranged for engagement with the said toothed bar, as and for the purpose specified.

OSCAR K. SLETTO.

Witnesses:
B. F. BROWN,
HELEN L. JACKSON.