

(No Model.)

2 Sheets—Sheet 1.

O. BACH.
BELT TIGHTENER.

No. 536,323.

Patented Mar. 26, 1895.

Fig. 1

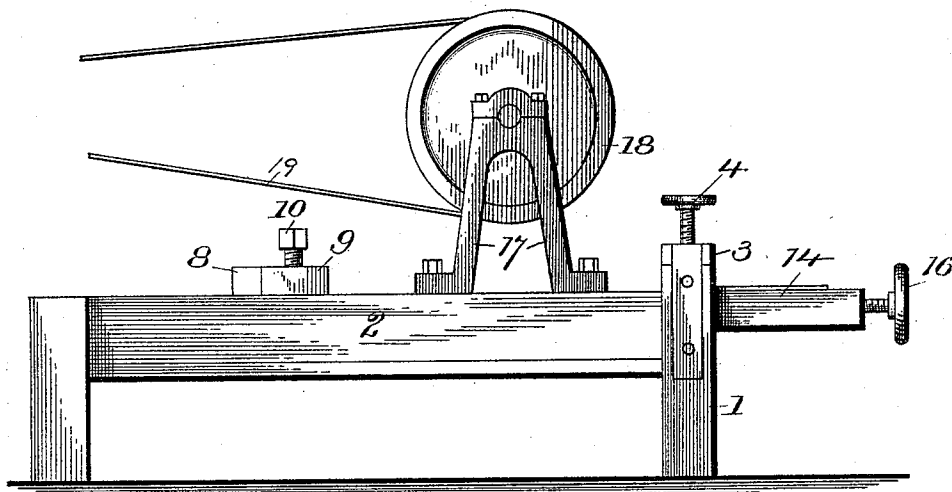
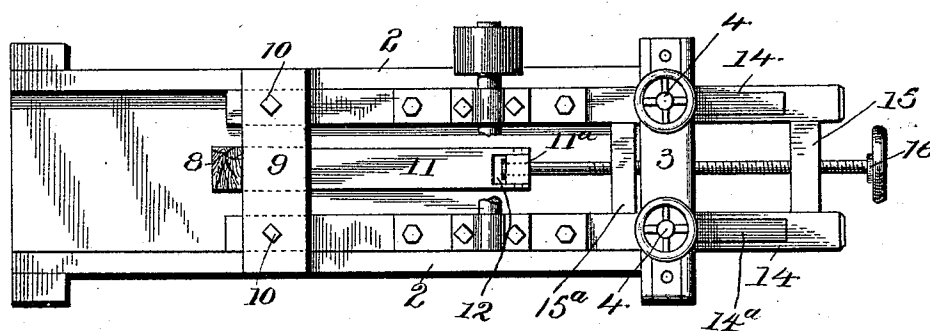


Fig. 2.



Witnesses
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A. E. Hall

Inventor
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by *John W. Alderman*
his Attorney

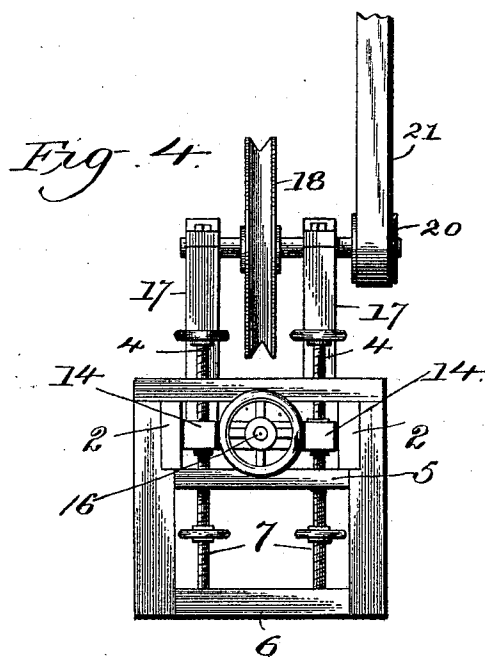
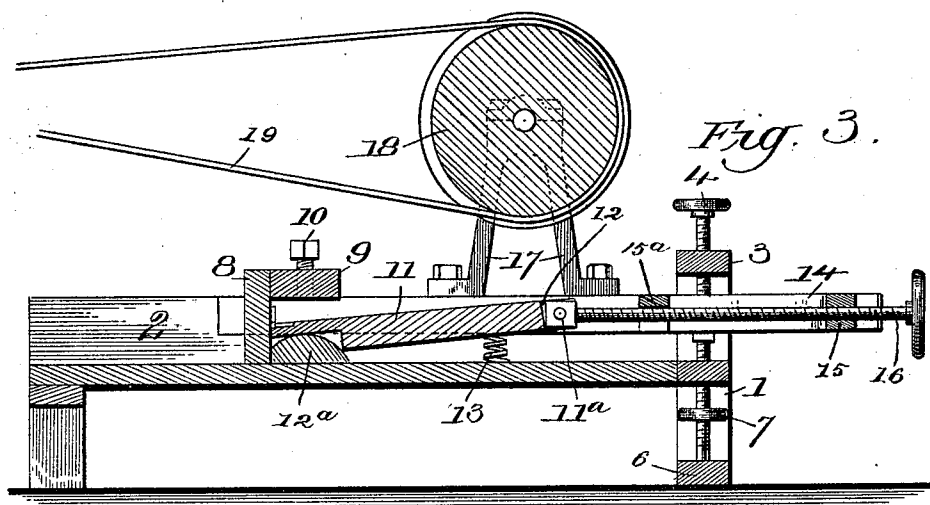
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2 Sheets—Sheet 2.

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BELT TIGHTENER.

No. 536,323.

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Witnesses:
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UNITED STATES PATENT OFFICE.

OTTO BACH, OF MABEL, MINNESOTA.

BELT-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 536,323, dated March 26, 1895.

Application filed November 14, 1894. Serial No. 528,741. (No model.)

To all whom it may concern:

Be it known that I, OTTO BACH, a citizen of the United States, residing at Mabel, in the county of Fillmore and State of Minnesota, 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.

My invention relates to improvements in belt tighteners, the same being applicable to all machinery where the power is applied at a distance from the operating machine. It is especially designed, however, for use in creameries where the separator is located at a point some distance beyond the main drive shaft from which the power is obtained.

The invention consists of a frame made of two pairs of uprights having longitudinal side bars forming ways, a movable frame located between said side bars and adapted to be moved longitudinally and vertically, said movable frame having two side bars and two uprights in which is mounted a pulley through which the power is applied from the source thereof to the machinery to be operated.

The invention also consists in other details of construction and combination of parts which will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a side elevation of the device. Fig. 2 is a plan view of the same. Fig. 3 is a vertical, central, longitudinal section through the same, and Fig. 4 is an end view.

The rigid framework of my device is made up of uprights 1, 1, having connected to the same two parallel side bars 2, 2. At the forward end of the frame is a cross-bar 3 in which are mounted two vertically disposed hand screws, 4, 4. Beneath the cross-bar 3 and parallel therewith are two cross-bars 5 and 6 between which are mounted two hand screws 7, 7, extending upward through the cross-bar 5. Between the beams 2, 2 and secured to the bottom of the device, is an upright 8, and connecting the beams 2 adjacent to said upright is a cross-beam 9 which is securely fastened to said beams 2 and to the upright 8. Through the top of this beam 9 extend downwardly two screw bolts 10, 10.

Hinged to the upright 8 is a forwardly extending bar 11 having a slot 12 in its forward end for a purpose which will appear later, and a cut-away portion on its under side to provide for the passage of the beam 12^a there-through. The front end of the bar 11 is held normally raised by means of coiled spring 13.

14, 14 represent the side bars of the movable frame which is located between the bars 2, 2, and beneath the cross-bar 9. The forward ends of the bars 14, 14 are connected by means of the two parallel cross-bars 15, 15^a through which extends a hand screw 16. The lower side of the rear bar 15^a is cut away as clearly shown for the passage of the hand screw 16 therethrough. This screw 16 has its rear end fitting the slot 12 in the end of the bar 11 and is secured thereto by a swivel 11^a. The beams 14, 14 rest upon the upper ends of the hand screws 7 at one end and are adapted to be raised and lowered by said screws. At the other end they rest upon the beam 12^a extending transversely across the device. The upper faces of said bars 14 have wear plates 14^a thereon which are engaged by the ends of the hand screws 4, by means of which the bars are held in adjusted position. The movable frame is adapted to be shifted back and forth between the side bars 2 by means of the hand screw 16 which bears against the end of the bar 11. The bar 11 is hinged and has its forward end held upwardly at all times by means of the spring 13 so that it will always be in line with the end of the screw 16, no matter what position the movable frame may be in. The side bars 14, 14 of the movable frame have secured thereto the uprights 17, 17 in which is mounted upon a suitable shaft the pulley 18. This pulley 18 has passing around it a belt 19 from the main drive shaft. On the same shaft upon which the pulley 18 is mounted is a second pulley 20 around which passes a belt 21 leading therefrom to the separator or other part of the machinery to which the power is to be applied.

By the construction shown and described, it will be seen that these belts may be always kept taut by means of the adjustment of the movable frame upon which the pulleys 18 and 20 are mounted. If it is desired to tighten the belt 19 the hand screws 4, 4, are loosened from contact with the plates 14^a on the upper

sides of the bars 14 and the movable frame forced outward by screwing up the hand screw 16. If it is desired to tighten the belt 21 the hand screws 7, 7, are unscrewed a proper distance and the outer end of the movable frame is forced down and clamped against the upper ends of said screws 7, 7, by the hand screws 4, 4. When in its desired position, it may be tightened and adjusted as before by means of the screws 4, 4. It will thus be seen that I have devised a simple and effective device for the purpose, which can be readily applied to any machine and by means of which belts may be quickly, and accurately adjusted with little expense.

The device has been described in its preferred form, but it is obvious that many minor changes might be made without departing from the nature or spirit of the invention or sacrificing any of its advantages. All such obvious changes and modifications are clearly within the scope of my invention and are intended to be covered by this patent.

Having now described the invention, what

I claim as new, and desire to secure by Letters Patent, is—

In a device of the character set forth, the combination, with a frame work composed of two pairs of uprights, longitudinal beams connecting the same, cross beams for said uprights having two sets of hand screws therein, and a bar hinged in said frame work, of a frame moving between said longitudinal bars and having thereon a pair of uprights, belt pulleys, mounted in said uprights and a hand screw in said movable frame engaging said hinged bar, whereby the said movable frame carrying the uprights and belt pulleys may be adjusted longitudinally and vertically, substantially as and for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

OTTO BACH.

Witnesses:

WM. HART,
S. C. BRACE.