(No Model.)

R. W. & W. MENKE.

BELT CARRIER TIGHTENER.

No. 380,400. Patented Apr. 3, 1888.

Fig. 1.

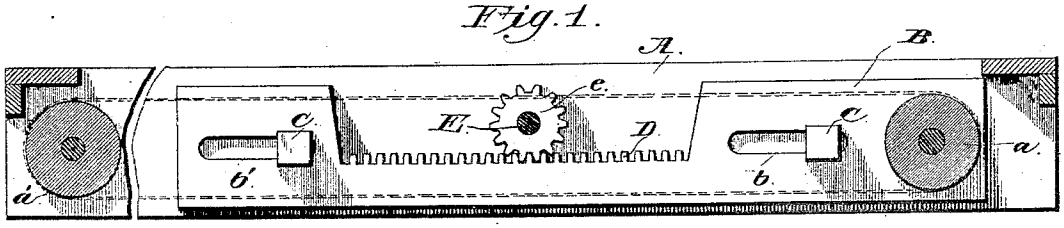


Fig. 2.

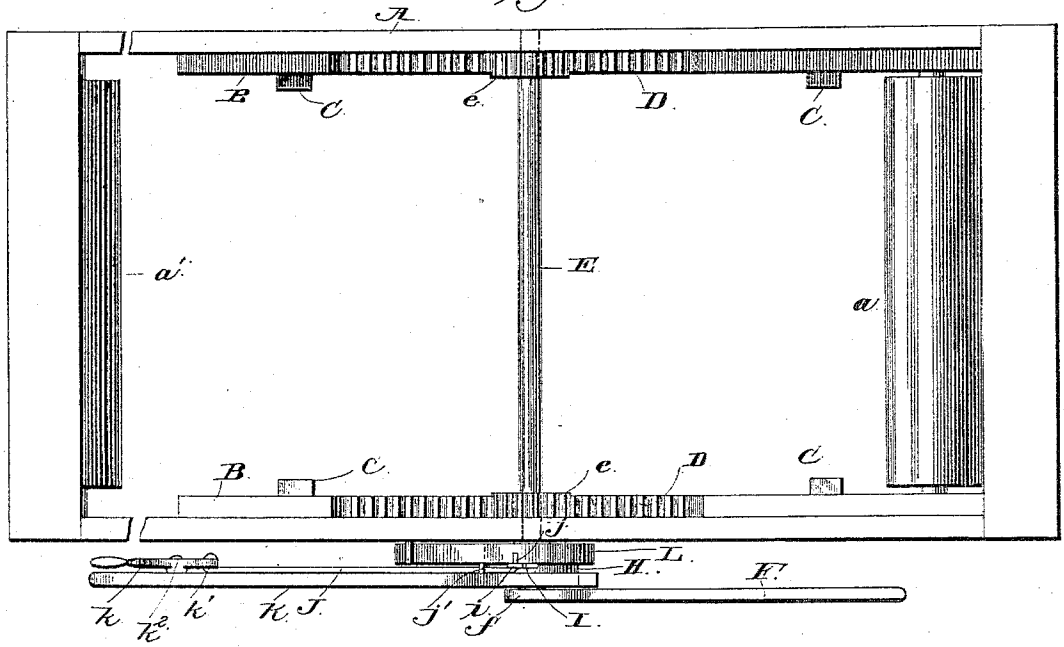
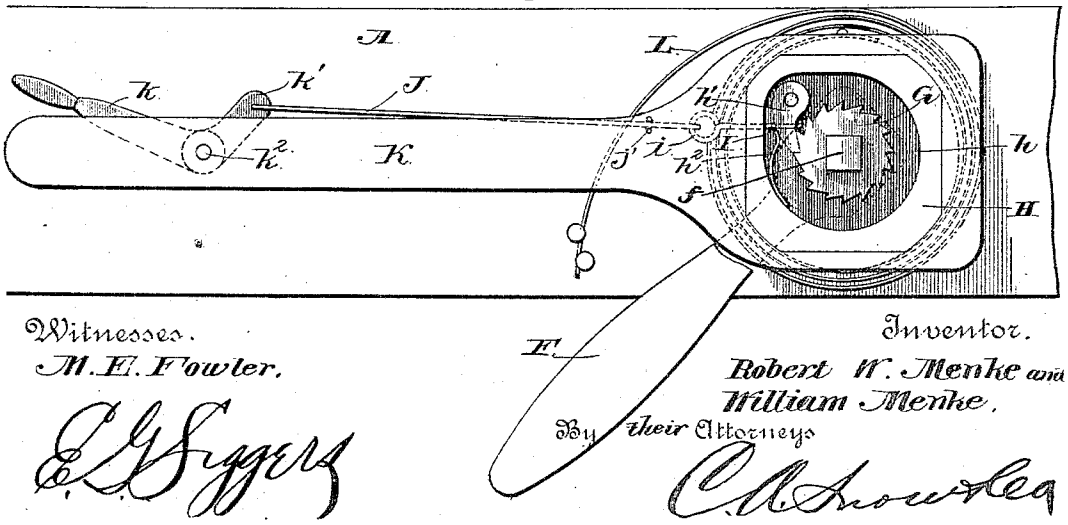


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

ROBERT WARREN MENKE AND WILLIAM MENKE, OF SANBORN, DAKOTA TERRITORY.

BELT-CARRIER TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 380,400, dated April 3, 1888.

Application filed December 29, 1887. Serial No. 259,356. (No model.)

To all whom it may concern:

Be it known that we, ROBERT WARREN MENKE and WILLIAM MENKE, citizens of the United States, residing at Sanborn, in the county of Barnes and Territory of Dakota, have invented new and useful Improvements in Belt-Carrier Tighteners, of which the following is a specification.

The invention relates to improvements in belt-carrier tighteners, being expressly adapted to harvester-carriers; and it consists in the construction and novel application of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a central longitudinal section of a belt-carrier having the invention applied thereto, the belt shown in dotted lines. Fig. 2 represents a plan view of the invention with the carrier-belt removed. Fig. 3 represents an enlarged side view showing the nut and spring, the nut being engaged by the wrench.

Referring to the drawings by letter, A designates the frame, having one end roller, *a*, of the carrier journaled to the side bars, B, moving against the inner surfaces of its side rails. The side bars, B, are provided near their ends with the longitudinal and preferably aligned slots *b b'*, through which pass the retaining pins or bolts C C on each side, which engage in tapped recesses in the side rails of the main frame.

D D are straight racks made on the upper sides of the bars B between the slots *b b'*. The roller *a* is journaled in the bars B to the outer side of the slot *b*, so as to be out of the way of said racks.

E is a transverse shaft journaled in the side rails of the main frame and having fixed upon it the pinions *e e*, which engage the respective racks D D. One stud of the shaft E is extended outside the corresponding rail, and has its extremity *f* squared for the attachment of a wrench, F, by means of which and the said pinion and racks the bars B may be made to travel inward or outward, so as to loosen or tighten the carrier-belt.

G is a ratchet-wheel fixed on the extended portion of the shaft E, and H is a nut loosely turning on said shaft and having a central recess, *h*, surrounding said ratchet-wheel.

h' is a pawl pivoted in the recess and forced into engagement with the ratchet-wheel by the spring h^2, having one end secured in the wall of said recess.

I is a small rod having its inner end secured to the pawl, passing thence through the wall of the nut H, and having a loop or ring, *i*, on its outer end to engage a hook, *j*, on the inner end of the sliding wire J, that moves through a staple or staples, *j'*, on the wrench K, and has its outer end pivoted to the outstanding arm *k'* of the angular hand-lever *k*, pivoted at k^2 to the wrench K, so that when the hand closes on said wrench and lever the wire I is drawn outward and the pawl *h'* is released from the ratchet-wheel G, allowing the shaft E to be turned in either direction.

The wrench K is slotted or notched to fit on the recessed nut H. L is a strong leaf-spring having one end secured to the said nut, the other end to the corresponding side rail of the main frame and surrounding the nut H with four or more coils. The ends of the said spring are preferably secured to the nut and side rail by pins or bolts, as shown, and serve to prevent reaction of the bars when moved to tighten the carrier.

When the wrench K is placed upon the nut, the pawl is disengaged from the ratchet by the described means. The wrench F may then be placed on the squared end of shaft E, and the bars B, and consequently the roller *a*, moved inward or outward thereby by the described means, loosening or tightening the carrier, as described. When sufficiently loose or tight, the latter is held in position by releasing the lever K, so as to allow the pawl to engage the ratchet before releasing the wrench F. The roller *a'* of the carrier is journaled in the side rails of the main frame.

Having thus described our invention, we claim—

1. The combination, with the main frame of the carrier, of the slotted bars moving against the side rails of said frame and provided with racks on their upper edges, the roller *a*, journaled in said slotted bars, the shaft journaled

on the side bars of the main frame, the pinions on said shaft, the ratchet-wheel on the extended end of said shaft, and the pawl engaging said ratchet-wheel, substantially as specified.

2. The combination, with the main frame of the carrier, of the slotted bars B, provided with the racks on their upper edges and moving on the pins or bolts C, the shaft E, journaled in said side bars and having one end outside its bearing squared, the pinions on said shaft, the ratchet-wheel on the squared end of the shaft, the pawl engaging said ratchet-wheel, and the wrench F, engaging said squared end, substantially as specified.

3. The combination, with the main frame of the carrier, of the bars B, having the slots *b b'* and racks D, the pins or bolts C, the shaft E, having the squared end *f* and the pinions *e e*, the ratchet-wheel, the recessed nut, the leaf-spring L, the pawl, and the spring attached to the recessed nut and forcing the pawl into engagement with the ratchet-wheel, substantially as specified.

4. The combination, with the main frame of the carrier, of the bars B, having the slots *b b'* and racks D, the pins C, the shaft E, having the squared end *f* and the pinions *e e*, the ratchet-wheel, the recessed nut, the leaf-spring L, the pawl, the spring attached to the recessed nut and bearing on the pawl, the wire I, having the ring *i* on its outer end, and the wrench K, provided with the angle-lever pivoted thereon at its angle, and the sliding wire J, having the hook *j* on its end, substantially as specified.

5. In combination with the main frame of the carrier, the slotted bars moving against the side rails of said frame and provided with racks, the roller *a*, journaled in said slotted bars, the shaft journaled in the side bars of the main frame, the pinions on said shaft to engage the racks, and the pawl-and-ratchet mechanism for the shaft, as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

ROBERT WARREN MENKE.
WILLIAM MENKE.

Witnesses:
C. E. PIERSON,
F. B. PEASE.