(No Model.)

C. DARST.

BELT STRETCHER.

No. 458,099. Patented Aug. 18, 1891.

Fig. 1

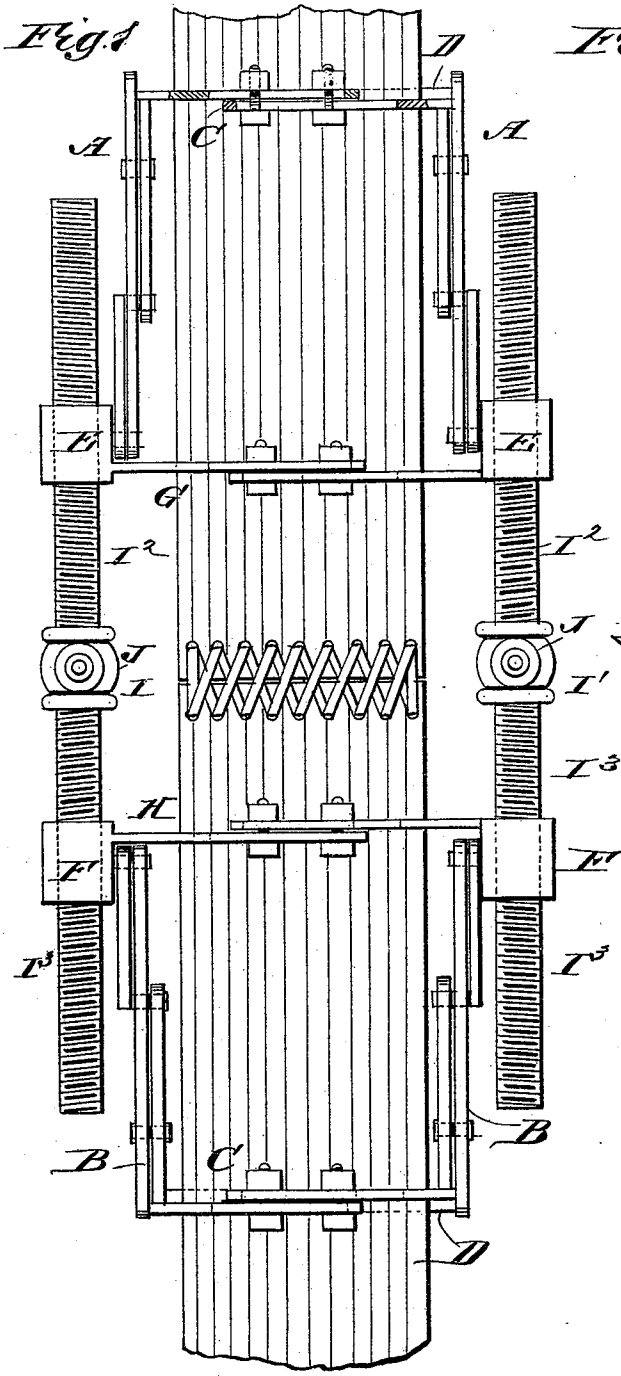
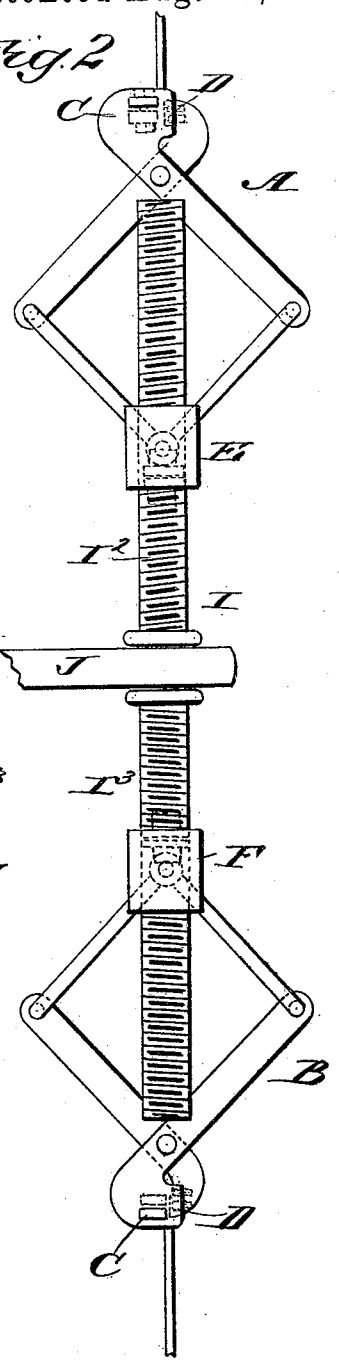


Fig. 2



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CLAUDE DARST, OF POMEROY, OHIO.

BELT-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 458,099, dated August 18, 1891.

Application filed February 3, 1891. Serial No. 380,064. (No model.)

To all whom it may concern:

Be it known that I, CLAUDE DARST, of Pomeroy, in the county of Meigs and State of Ohio, have invented a new and improved Belt-Stretcher, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved belt-stretcher which is simple and durable in construction, can be readily applied to large or small belts to conveniently draw the ends together to give any desired tension to the belt, and to permit the operator to conveniently lace or otherwise fasten the ends of the belt together.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

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

Figure 1 is a plan view of the improvement as applied. Fig. 2 is a side elevation of the same.

The improved belt-stretcher is provided with two sets of toggle-levers A and B, each set comprising two toggle-levers arranged opposite each other and having their outer ends connected with each other by two arms or bars C and D, adapted to engage the opposite sides of belt to clamp the same. Each toggle-lever is made of four independent arms, as plainly shown in Fig. 2, the outer ones of which extend beyond the pivot, as plainly shown in Figs. 1 and 2, and carry the cross-clamping arms C and D above mentioned. The arms C and D are, preferably, made adjustable lengthwise, so as to accommodate the belt-stretcher to narrow or wide belts. One of the arms C or D is rigidly secured at its ends to the two corresponding arms of the toggle-levers in the respective set, while the other is held loosely in the other arms, so as to be conveniently removed when applying the stretcher on the belt. The inner ends of the inner arms of the toggle-levers A and B are pivotally connected with sets of nuts E and F, respectively, the two nuts in each set being connected with each other transversely by arms G and H, respectively, which arms are made lengthwise adjustable similar to the clamping-arms C and D. The sets of nuts E and F are mounted to screw on two screw-rods I and I′, each provided with right and left hand threads I^2 and I^3, respectively, so that when the screw-rod is turned its two nuts move toward or from each other, according to the direction in which the respective screw-rod is moved. In order to conveniently turn the screw-rods each is provided in its middle with a suitable mechanism actuated by a lever J, which when moved forward or backward turns the respective screw-rod.

In order to apply the device the movable clamping-bars are removed from the respective sets of toggle-levers A and B, and then the device is placed on the belt at the ends, so that the stationary clamping-bars engage the belt on one side, after which the other clamping-bars are inserted to engage the belt on the opposite side. The operator now imparts a turning motion to the two screw-rods I and I′, so that the sets of nuts E and F are moved toward each other, whereby the sets of toggle-levers A and B are actuated, and the sets of clamping-bars C and D engage and clamp the ends of the belt. On a further movement of the levers J the nuts E and F are drawn still farther toward each other, whereby the toggle-levers A and B are caused to move toward each other, a further closing of the toggle-levers being prevented by the oppositely-arranged clamping-arms C and D firmly engaging the belt. The ends of the belt are thus drawn toward each other, and any desired tension can be given to the belt. When this has been accomplished, the ends of the belt can be laced or otherwise fastened together, after which the operator turns the levers J in an opposite direction, so as to open the toggle-levers A and B, thereby opening the clamping-arms C and D, of which the removable one is withdrawn, and the device can be then readily taken off the belt.

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

1. A hand implement for drawing the ends of a belt together, consisting in opposite sets of toggle-levers having oppositely-projecting laterally-extending jaws and parallel screws connecting and carrying the sets of toggle-levers for closing said jaws and simultane-

ously drawing them toward each other, substantially as set forth.

2. In a belt-stretcher, the combination, with sets of toggle-levers formed with clamping-arms, which clamp the belt, of nuts pivotally connected with the said toggle-levers, and screw-rods engaging the said nuts to move the toggle-levers toward and from each other and to open and close the clamping-arms, and provided with means for operating them, substantially as shown and described.

3. In a belt-stretcher, the combination, with sets of toggle-levers formed with clamping-arms which clamp the belt at each end, of sets of connected nuts on which the said sets of toggle-levers are pivoted, and screw-rods having right and left hand threads engaging the said nuts to move the said sets of toggle-levers toward and from each other and to open or close the sets of clamping-arms and provided with means for operating them, substantially as shown and described.

4. In a belt-stretcher, the combination, with sets of toggle-levers formed with extensible clamping-arms which clamp the belt at each end, sets of connected nuts on which the said sets of toggle-levers are pivoted, screw-rods having right and left threads engaging the said nuts to move the said sets of toggle-levers toward and from each other and to open and close the sets of clamping-arms, and means for revolving the said screw-rods, as set forth.

5. In a belt-stretcher, the combination, with two sets of toggle-levers adapted to be opened and closed, and the operating-screws therefor, of lengthwise-adjustable clamping-arms connecting with corresponding arms of the said sets of toggle-levers, the said clamping-arms being arranged opposite each other and forming jaws which clamp the belt ends, one of said clamping-arms of each clamp being rigidly connected to the toggle-levers, while the other is held removably therein, substantially as shown and described.

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