

J. N. LOUTENSOCK.
 BELT ADJUSTER.
 APPLICATION FILED NOV. 26, 1910.

992,568.

Patented May 16, 1911.

2 SHEETS—SHEET 1.

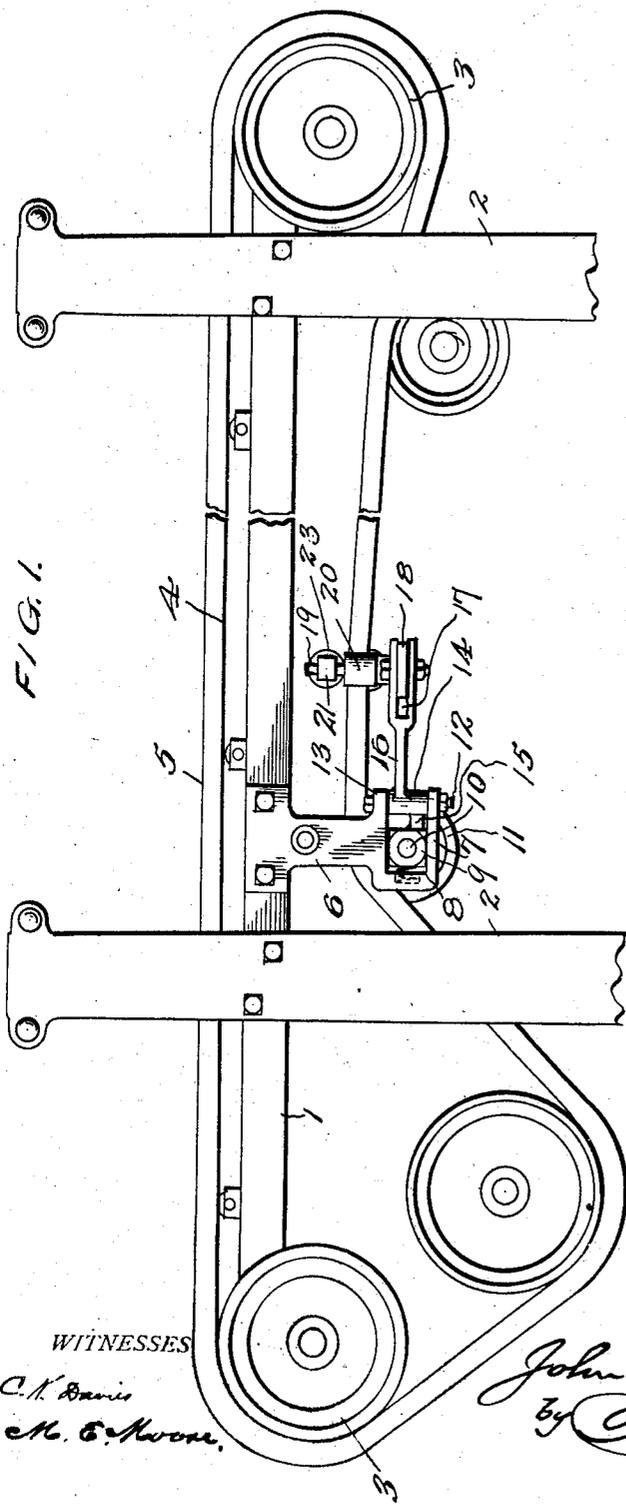


FIG. 1.

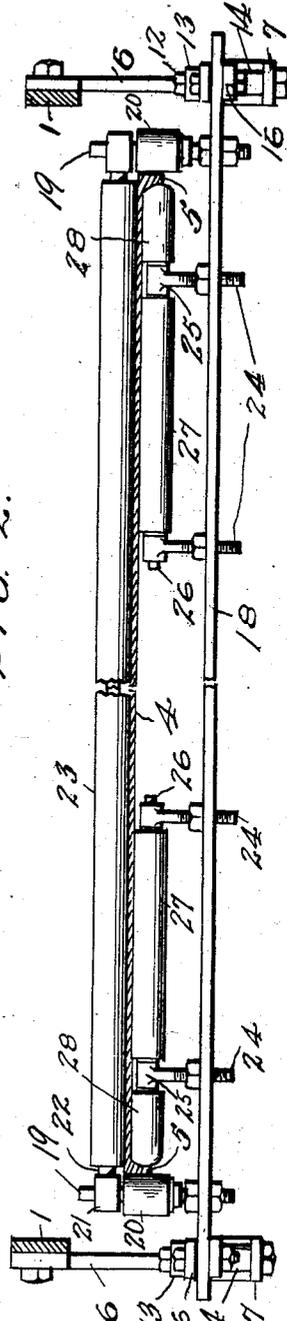


FIG. 2.

WITNESSES
 C. H. Davis
 H. E. Moore.

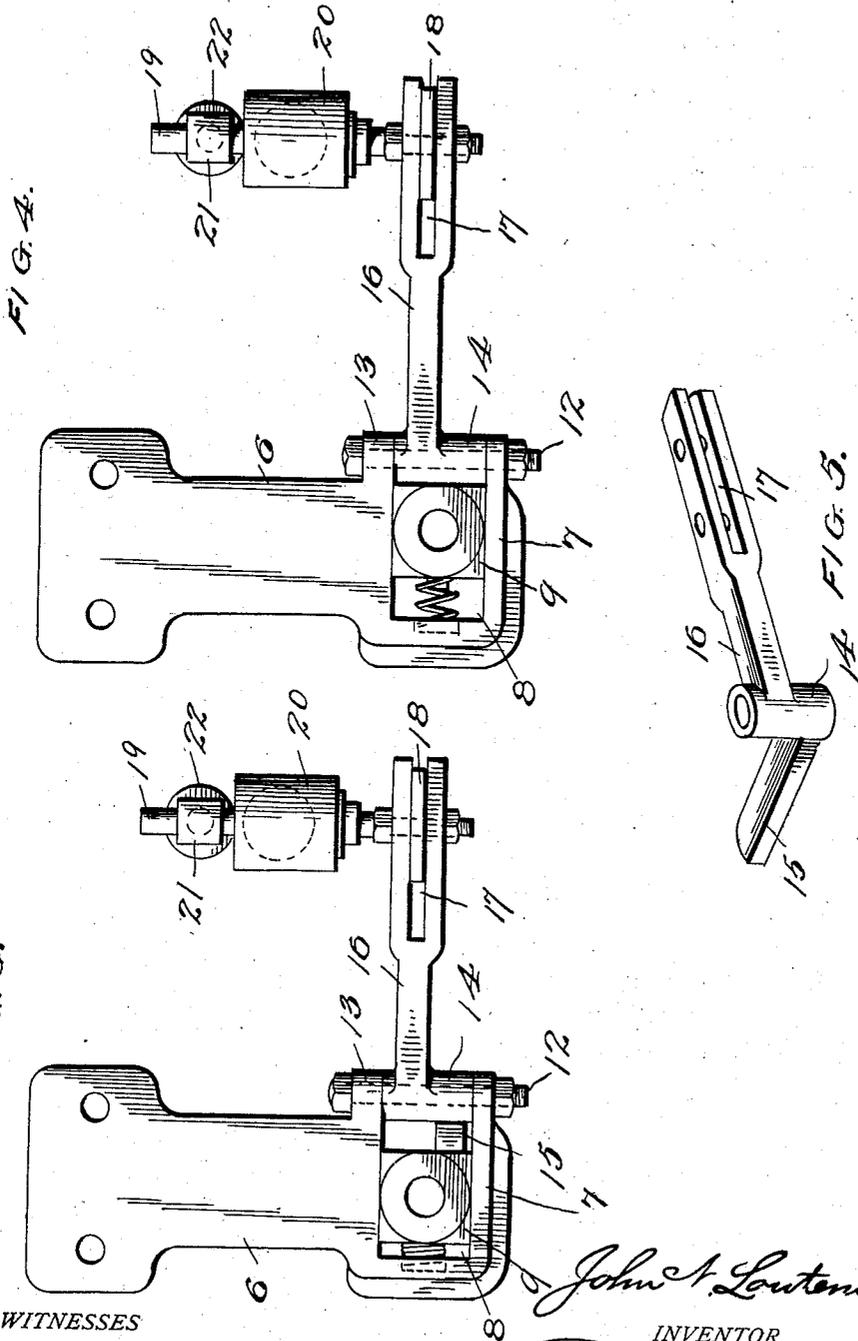
INVENTOR
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 by *H. E. Moore*
 Attorney

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UNITED STATES PATENT OFFICE.

JOHN N. LOUTENSOCK, OF GARFIELD, UTAH.

BELT-ADJUSTER.

992,568.

Specification of Letters Patent. Patented May 16, 1911.

Application filed November 26, 1910. Serial No. 594,291.

To all whom it may concern:

Be it known that I, JOHN N. LOUTENSOCK, a citizen of the United States, residing at Garfield, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Belt-Adjusters, of which the following is a specification.

My invention relates to improvements in belt adjusters, and has especial reference to an improved attachment for vanners which will adjust the belts thereof and insure the correct positioning of said belt on its rolls.

The leading object of the invention is the provision of an improved belt guide or adjuster which will serve to automatically guide a belt and prevent its lateral movement on its rollers, which device will not bear against and cause frictional wear of the sides of the belt.

A further object of the invention is the provision of a device adapted especially for use in conjunction with a vanner or like belt having lateral flanges which will serve to protect both said flanges and the brackets from which the guide rollers for the belt are hung, and which will retain the belt upon the central portion of said guide roller.

Another object of the invention is the provision of means actuated by the lateral displacement of a belt which will serve to shift the guide roller for the belt and thus cause the belt to automatically return to normal position without the employment of any lateral guiding pressure.

To attain the desired objects, my invention comprises a guide roller, and means engaging the belt and shifted by the lateral movement thereof to move the roller and set it at an angle to the belt until the belt has returned to correct position, the invention further residing in the novel features of construction and combination and arrangement of parts for service substantially as described in the following specification and as illustrated in the accompanying drawings forming a part thereof.

Figure 1 represents a side elevation of a vanner with my improved adjuster applied thereto. Fig. 2 represents a view of the adjuster detached, the vanner belt being shown in position in section. Fig. 3 represents an enlarged detailed side elevation of the supporting bracket and adjuster illustrating the shifting of the guide roller in one direction, and, Fig. 4 represents a similar view with the roller adjusted in the op-

posite direction. Fig. 5 is a perspective view of a bell crank lever forming a part of the operating mechanism of the device.

In the drawings, in which similar characters of reference are employed to denote corresponding parts in the several views, the numeral 1 designate the vanner frame, having the supporting members 2 and having mounted at each end the rollers 3 over which passes the vanner belt 4 having the upstanding lateral flanges 5.

Depending from the frame 1 on each side is a bracket 6 having at its lower end the L shaped lug 7 providing between said lug and the body of the bracket the guide way 8 in which is mounted the bearing 9 for the axle 10 of the guide roller 11. Forming a closure for the end of the guideway is the bolt 12 uniting the end of the lug with the ear 13 of the bracket, while pivotally mounted on said bolt is the laterally disposed bell crank lever 14 having one arm 15 adapted to contact with the bearing 9. The other arm 16 of said lever 14 is preferably slotted as at 17, and engaged in the slots of said arms and serving to connect the arms on opposite sides of the vanner is the plate or bar 18 having upstanding therefrom at each end the post 19, while mounted on the posts 19 are the movably supported guide spools or rollers 20 surmounted by the bearings 21 for the shaft 22 of the roller 23, said roller resting upon the vanner belt while the spools 20 contact with the flanges thereof, as best shown in Fig. 2. By reference to this figure it will be seen that adjustably mounted on the plate 18 interior to the posts 19 are pairs of supplemental posts 24 bearing at their upper ends the bearings 25 for the axles 26 on which is mounted the rollers 27 intermediate the posts and the rounded roller 28 which contacts with the vanner belt flanges 5 and retains them near the spool 20.

From the foregoing description the construction of my device will be readily understood and it will be seen that upon the slightest shifting movement of the vanner belt it will engage one of the spools 20, when its continued movement will shift my entire device on the bolts 12 as pivots, at the same time throwing the arm 15 of one of the crank levers 14 against one of the bearings 9, while the other arm 15 will be thrown out of engagement with the opposite bearing 9. The arm 15 in contacting

with the bearing 9 cams or forces the same back in the guideway, as shown in Fig. 3, while the other arm 15 being correspondingly moved in the opposite direction, or
 5 away from the bearing permits of the forward movement of the bearing, as shown in Fig. 4, the roller and thus its bearing being shifted forward either solely by the pull of the vanner belt or the supplemental action of the coil spring 29 interposed between the bearing and the end of the guide way 8. It will be evident to all that the slightest lateral movement of the vanner belt will suffice, by the action on the opposite ends of the roller 11, to shift the said roller into diagonal position until the belt returns to normal position, when it will move my adjuster into neutral position, as shown in Fig. 1, and that I have therefore
 15 provided an automatic belt adjuster of the highest efficiency which will prevent the vanner belt from contacting with the supporting brackets for the guide roller, and will thus both prevent wear on the bracket and on the flange of the belt, said flange contacting only with the resilient spools 20 which are of material which will not injure the belt.

I claim:

30 1. The combination with a belt, of a guide roller and slidably supported bearings, bell cranks pivotally secured adjacent said bearings for shifting the same, and means carried by the bell cranks for engaging the
 35 belt when laterally moved, said movement of the belt shifting the bell cranks and thus the bearings of the guide roller.

40 2. The combination with a frame, of a belt passing thereover, brackets carried by the frame and provided with guideways, bearings mounted in the guideways and a

guide roller therein, bell crank levers pivotally secured at the ends of the guideways and having one arm contacting with and controlling the movement of the bearing in its guideway, and anti-friction rollers carried by the other ends of the said levers, the lateral shifting of the belt swinging the levers on their pivots and thus moving the guide roller into a diagonal position until the belt has been thus guided into normal position.

3. The combination with a belt supporting roller having resiliently supported bearings, of a belt guide comprising a pair of connected levers contacting with said bearings, and bearing rollers at each side of the belt connected with said levers to return the belt to normal position.

4. The combination with a belt supporting roller having movable bearing blocks, of a belt adjuster comprising a pair of bell crank levers connected together and contacting with said bearings, rollers at each side of the belt supported and movable with said levers to preserve the belt in normal position.

5. A belt guide comprising in combination with a movable shaft and roller, a pair of bell crank levers and an arm connecting them, end posts on said arms and rollers on said posts, an upper roller supported between said posts, and intermediate posts providing bearings for other rollers located under the upper roller.

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

JOHN N. LOUTENSOCK.

Witnesses:

LEON D. MATHER,
 ARTHUR L. GENERAUX.