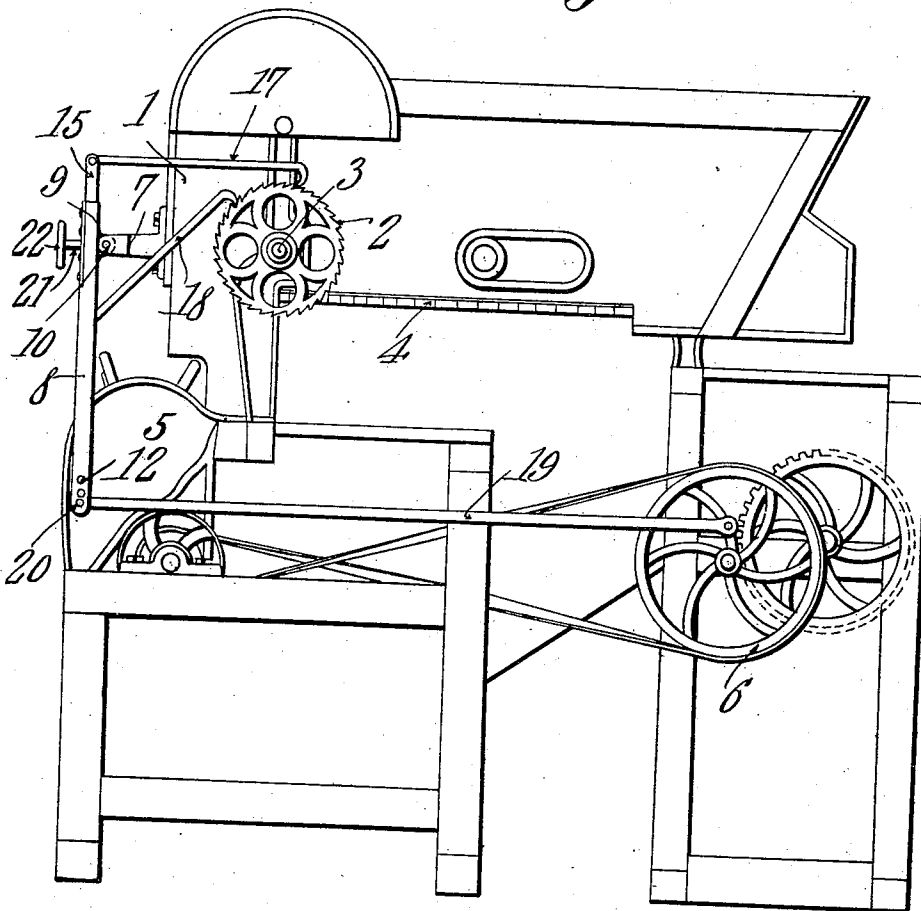


T. N. CAMP.
GIN FEED ACTUATING DEVICE.
APPLICATION FILED FEB. 9, 1910.

969,337.

Patented Sept. 6, 1910.
2 SHEETS—SHEET 1.

Fig. 1.



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Fig. 2.

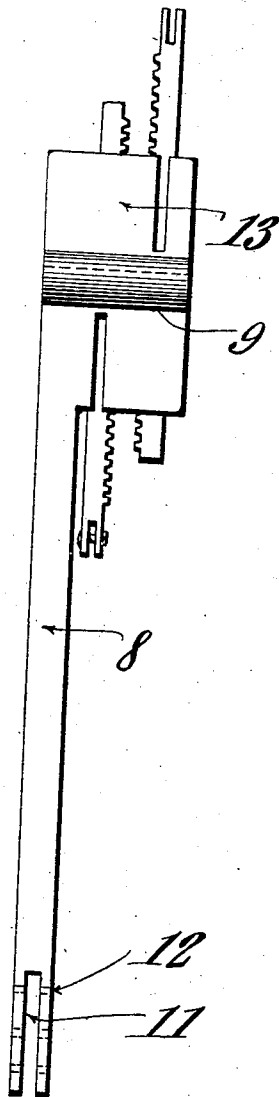
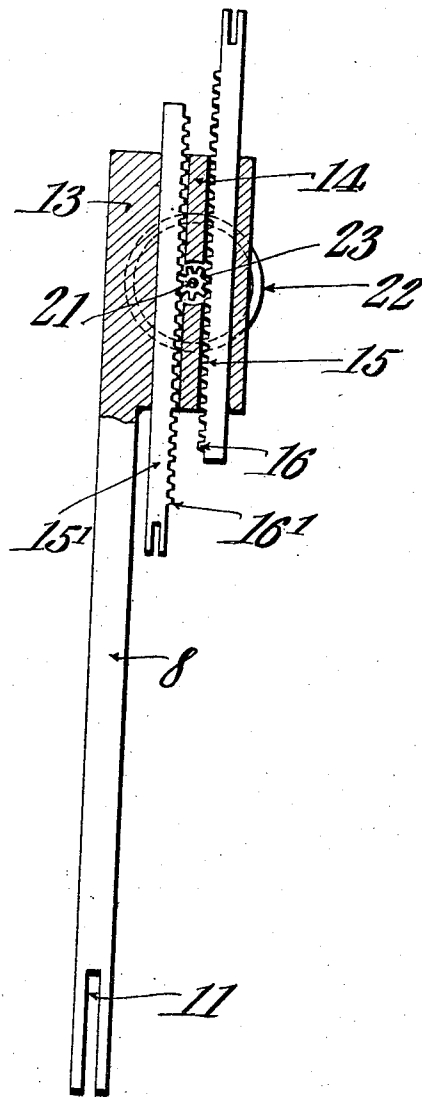


Fig. 3.



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UNITED STATES PATENT OFFICE.

THOMAS N. CAMP, OF POWDER SPRINGS, GEORGIA.

GIN-FEED-ACTUATING DEVICE.

969,337.

Specification of Letters Patent.

Patented Sept. 6, 1910.

Application filed February 9, 1910. Serial No. 542,889.

To all whom it may concern:

Be it known that I, THOMAS N. CAMP, a citizen of the United States, residing at Powder Springs, in the county of Cobb and State of Georgia, have invented a new and useful Gin-Feed-Actuating Device, of which the following is a specification.

This invention has relation to gin feed actuating devices and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a simple device of the character indicated the parts of which are so arranged that they may be readily adjusted while the device is in operation to control the quantity of material which will be fed to the saws of the gin.

With the above objects in view the device consists of a lever which is fulcrumed to the frame of the gin and which is provided with arms adapted to be adjusted longitudinally with relation to the fulcrum point of the lever. Means is provided for adjusting the said arms. A ratchet wheel is mounted upon the feed shaft of the gin and pawls are pivotally connected to said arms and are adapted to operate upon the periphery of the said ratchet wheel to turn the same as the lever is swung upon its fulcrum. A connecting rod is pivotally connected at one end with a driving wheel forming a component part of the gin and the other end of the said connecting rod is adjustably connected with the power end of the said lever.

In the accompanying drawings:—Figure 1 is a side elevation of a gin with the feed actuating device applied thereto. Fig. 2 is a side elevation of the lever forming a part of the actuating device detached from the gin. Fig. 3 is a side elevation of the said lever with parts thereof in section.

As shown in Fig. 1 of the drawings, the reference numeral 1 indicates a gin feeder structure having a ratchet wheel 2 attached to the end of the feed shaft 3. Any suitable feed device, as for instance an endless belt 4 may be actuated by the shaft 3 and has its delivery end disposed above the breast 5 of the gin. A drive wheel 6 forms a component part of the gin structure and is connected, by ordinary means, with the movable parts of the gin that are actuated by the same.

A standard 7 is attached to the forward portion of the frame of the gin 1 and a

lever 8 is fulcrumed to the outer end of the said standard. The lever 8 is provided with a sleeve 9 which receives a cross pin 10 attached to the outer portion of the said standard and the said sleeve 9 and cross pin 10 constitute the fulcrum point of the said lever. The lower end of the lever 8 is provided with a longitudinally disposed slot 11 which bifurcates the same and the bifurcations are provided with transversely disposed perforations 12. At its upper end the lever 8 is provided with a head 13 which is vertically slotted as at 14 and the arms 15 and 15' are slidably mounted in the slots 14 of the head 13 of the lever 8. The arms 15 and 15' are provided at their inner edges with teeth 16 and 16' respectively. A pawl 17 is pivotally connected at its forward end with the upper end of the arm 15 and a pawl 18 is pivotally connected at its forward end with the lower end of the arm 15'. The rear ends of the pawls 17 and 18 are hook shaped and rest upon the upper portion of the periphery of the ratchet wheel 2. A connecting rod 19 is pivotally and eccentrically connected at its rear end with the drive wheel 6 and the forward end of the said connecting rod 19 is pivotally and adjustably connected with the lower end of the lever 8 by means of a pin 20 which passes transversely through the said connecting rod 19 and lies in one of the perforations 12 provided in the bifurcations formed at the lower end of the lever 8.

A shaft 21 is journaled in the head portion 13 of the lever 8 and has an end portion which projects beyond the front side of the said lever and is provided with a hand wheel 22. A pinion 23 is fixed to the intermediate portion of the shaft 21 and meshes with the teeth 16 and 16' carried by the arms 15 and 15' respectively. The arms 15 and 15' are so positioned with relation to the shaft 21 and the fulcrum point between the lever 8 and the standard 7 that their ends which are pivotally connected with the pawls 17 and 18 respectively are always at equal distances from the said shaft 21 and the said fulcrum point.

From the above description it will be seen that as the wheel 6 rotates the connecting rod 19 will be moved longitudinally and the lever 8 will be swung upon its fulcrum. As the lower end of the said lever 8 is swung away from the feed shaft 3, the pawl 18, which is in engagement with the teeth of

the ratchet wheel 2 will partially turn the said wheel 2 upon the axis of the shaft 3 at the same time the pawl 17 will be moved longitudinally toward the rear portion of the gin feeder 1 and will escape or pass over the teeth of the ratchet wheel 2. As the wheel 6 continues to rotate and the rod 19 is moved toward the rear of the gin feeder 1 the pawl 17 will engage the teeth of the ratchet wheel 2 and partially turn the said ratchet wheel upon the axis of the shaft 3 while the hook portion of the pawl 18 will escape the teeth of the ratchet wheel 2 and move toward the rear part of the gin feeder 1.

An operator may stand in front of the frame of the gin feeder 1 and observe the manner in which the gin saws are operating upon the material which is fed to them in consequence of rotating the shaft 3. If the cotton is damp or heavy he may grasp the hand wheel 22 and turn the shaft 21 whereby the ends of the arms 15 and 15' which are pivotally connected with the pawls 17 and 18 respectively are brought toward each other and consequently the extent of movement of the pawls 17 and 18 is diminished and the extent to which the ratchet wheel 2 is intermittently turned is reduced. If however the cotton should be dry and light the operator may so turn the shaft 21 as to move the ends of the arms 15 and 15' away from each other whereby the extent of longitudinal movement of the pawls 17 and 18 is increased and the extent of intermittent rotation of the ratchet wheel 2 is correspondingly increased. Therefore it will be seen that simple and effective means is provided for adjusting the amount of material which is fed to the gin saws while the gin and the other parts of the machine are in operation. It is of course understood that by adjustably connecting the forward end of the connecting rod 19 with the lower end of the lever 8 that the rocking movement of the said lever upon its fulcrum point may be increased or diminished as desired.

Having described the invention, what I claim as new and desire to secure by Letters Patent is:—

1. In combination with a gin having a feeding device, means for actuating the feeding device comprising a standard mounted upon the gin frame, a lever fulcrumed to the standard, a connecting rod pivotally attached at one end with said lever and at its other end pivotally connected

with a revolving wheel forming a component part of the gin, arms adjustably mounted upon said lever and having gear teeth, a shaft journaled upon the lever, a pinion carried by said shaft and meshing with the teeth of said arms, a ratchet wheel mounted upon the shaft of the feeding device, and pawls pivotally connected to said arms and engaging the ratchet teeth of said ratchet wheel.

2. In combination with a gin having a feeding device, means for actuating the feeding device comprising a standard attached to the frame of the gin, a lever fulcrumed to the standard, a connecting rod pivotally attached at one end to the power end of said lever and pivotally attached at its other end to a driving wheel forming a component part of the gin, arms slidably mounted upon said lever and having their outer ends located at equal distances from the fulcrum point of the lever, said arms having teeth, a shaft journaled upon the lever, a pinion fixed to the shaft and meshing with the teeth of the arms, a ratchet wheel mounted upon the shaft of the feeding device, and pawls pivoted to the outer ends of said arms and engaging the teeth of said ratchet wheel.

3. In combination with a gin having a feeding device, means for actuating the feeding device comprising a standard attached to the frame of the gin, a lever fulcrumed to said standard, a connecting rod pivotally connected at one end with the said lever and at its other end pivotally connected with a driving wheel forming a component part of the gin, arms slidably mounted upon the lever and having teeth, a shaft journaled upon the lever, a pinion mounted upon said shaft and meshing with the teeth of the arm, the outer ends of said arms being located at equal distances from the fulcrum point of the lever and the said shaft journaled thereon, a ratchet wheel fixed to the shaft of the feeding device, and pawls pivotally connected at their forward ends with the outer ends of the arms and at their rear ends engaging the teeth of the ratchet wheel.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

THOMAS N. CAMP.

Witnesses:

G. M. HARDAGE,
A. J. STEWART.