W. W. CRENSHAW.

AUTOMATIC STOP MOTION TO ATTACH TO A COTTON CARD.

APPLICATION FILED AUG. 29, 1911.

**1,041,032.**

**Patented Oct. 15, 1912.**

2 SHEETS—SHEET 1.

Fig. 1.

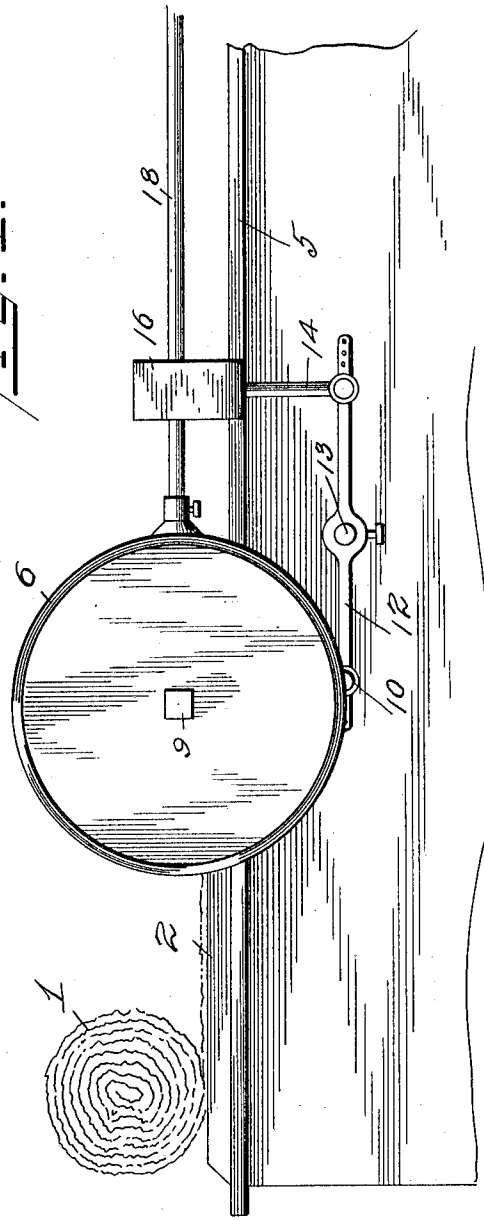
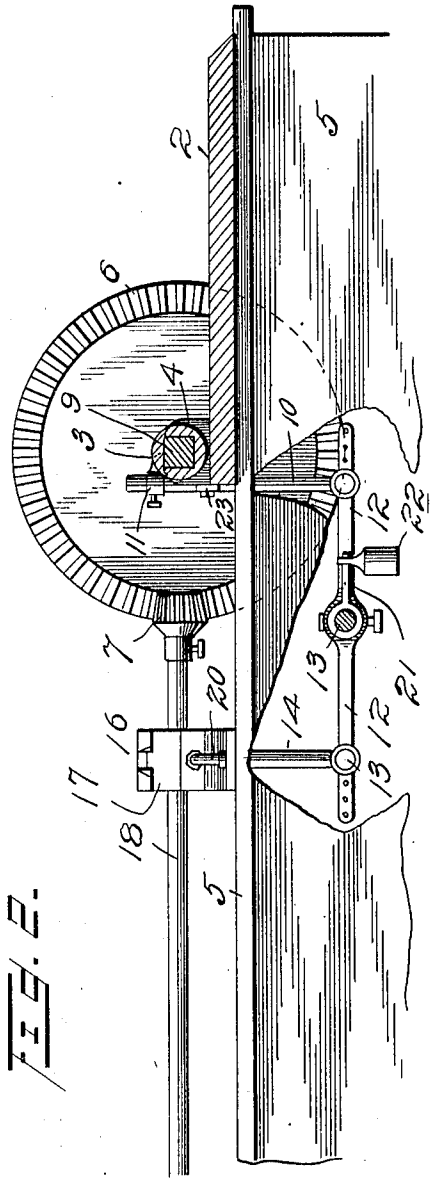



Fig. 2.




Witnesses

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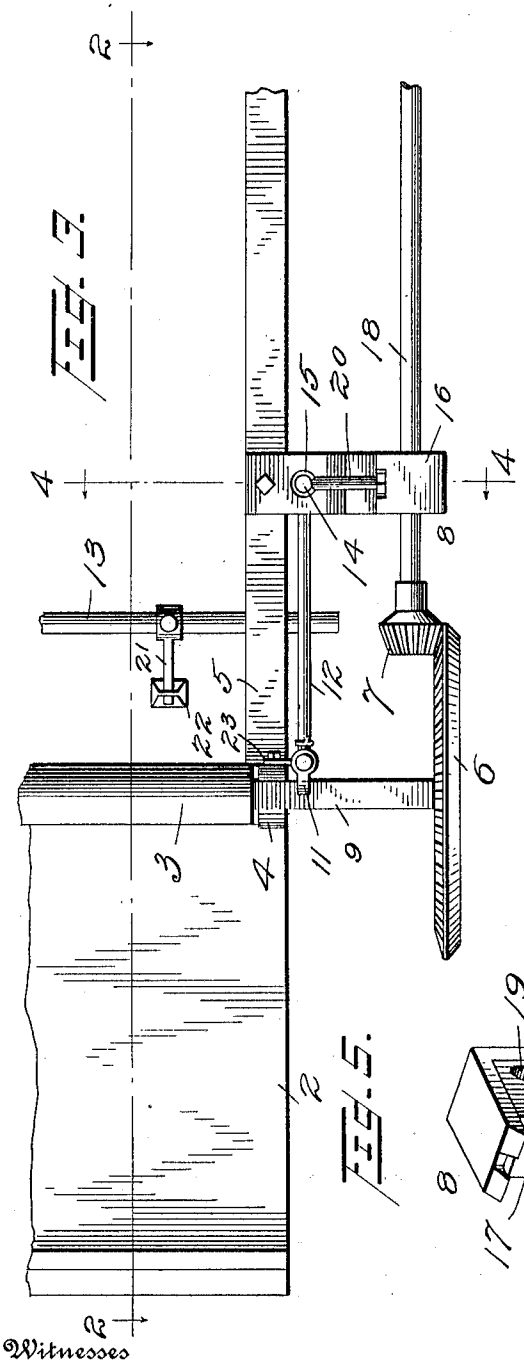

FIG. 3.

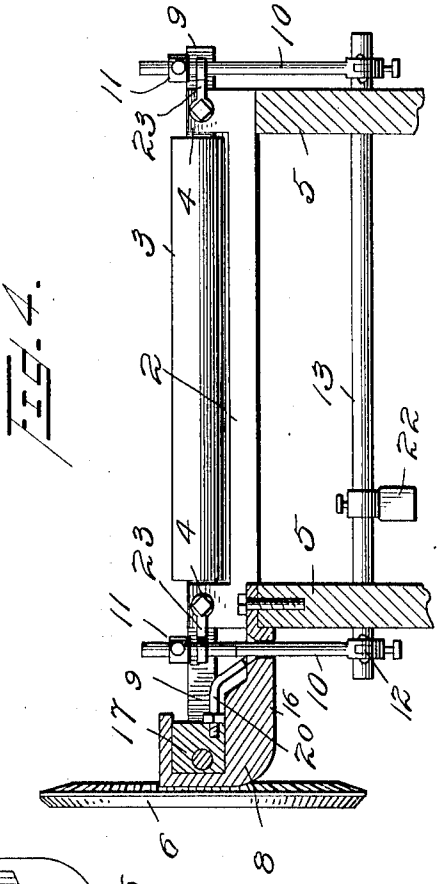

FIG. 4.

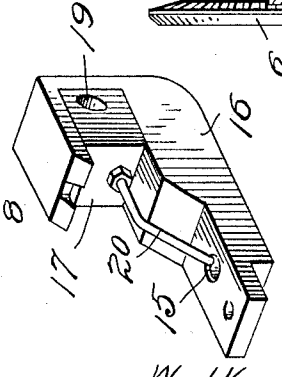

FIG. 5.

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# UNITED STATES PATENT OFFICE.

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## AUTOMATIC STOP-MOTION TO ATTACH TO A COTTON-CARD.

1,041,032. Specification of Letters Patent. Patented Oct. 15, 1912.

Application filed August 29, 1911. Serial No. 646,758.

*To all whom it may concern:*

Be it known that I, WALKER W. CRENSHAW, a citizen of the United States, residing at Rockhill, in the county of York and State of South Carolina, have invented certain new and useful Improvements in Automatic Stop-Motions to Attach to Cotton Cards, of which the following is a specification.

This invention has relation to new and useful improvements in automatic stop motion to attach to a cotton card.

The main object of my invention is to prevent choking of a cotton card on account of too much cotton entering the same and will also prohibit excessive "doublings".

A further object of my device is to preview my invention consists of the novel feacard, which objects would damage the card wire, licker-in or moat knives.

By the use of my improvements, the screens, moat knives or feed plates may not be removed from their proper settings.

A further object of my invention is to provide a device of this nature that will be simple in construction, cheap to manufacture and durable as to wear and tear.

With the foregoing and other objects in view my invention consists of the novel features of construction, combination and arrangement of parts as are described in this specification, illustrated in the accompanying drawings forming a part thereof and particularly pointed out in the appended claim.

Reference being had to the drawings: Figure 1 is a side elevational view of my invention. Fig. 2 is a side elevational view of my invention, looking at the opposite side to that which is illustrated in Fig. 1, parts being broken away. Fig. 3 is a top plan view of my invention. Fig. 4 is a vertical, transverse sectional view taken on the line 4—4 of Fig. 3. Fig. 5 is a perspective view of a slide bearing, utilized in the operation of the device.

Referring more particularly to the drawings in which like numerals designate like parts throughout, my invention is described as follows: The cotton 1 which rests upon the feed plate 2 passes under the roller 3 mounted for rotation in the bearings 4, which bearings extend upward from the frame 5 of the cotton card. Held to one end of said roller 3 is a large beveled gear 6 which intermeshes with a small beveled gear 7 held upon the inner end of a shaft which is in turn held for rotation in an adjustable bearing 8 near its inner end. When too much cotton or any solid object begins to pass under said feed roller 3 it will raise said roller together with its spindle 9, which action will raise rods 10 by pressing upward against an adjustable extension 11. This action will raise the adjacent end of an arm 12, which arm is pivoted to a transverse shaft 13 which extends through the frame of the card and acts as a bearing or support for said arms. Secured to the opposite end of the arm 12 is a vertical arm 14, the upper end of which extends through an opening 15 in the stand 16, which stand supports the slide bearing 17 of shaft 18. Said shaft 18 extends through an opening 19 in said slide bearing 17 and when the arm 14 is drawn downward by the action of such arm 12 the shaft 18 is allowed to shift from its normal position as the finger 20 secured to the outer face of the slide bearings 17 slips into the opening 15 provided in the stand 16. Simultaneously the small beveled gear 7 will be thrown out of engagement with the large beveled gear 6 whereupon the rotation of said roller 3 will cease.

So that the spindle 9 upon which the roller 3 is mounted will be normally held in downward position against a certain predetermined resistance, a lever 21 is secured to the spindle 13 and extends forward, said lever being provided with a weight 22 at its forward end, which weight will have a tendency to hold the rods 10 normally in lowered position, only to be raised, as above described, when too much cotton or any solid object begins to pass under said roller 3.

The rods 10 are guided in their vertical movement by means of guides or holders 23 which are secured one to each of the rear corners of said feed plate 2.

Although I have specifically described the novel features of construction, combination and arrangement of the several parts of my invention, yet I do not confine myself to such construction, but reserve and may exercise the right to make such changes therein as do not depart from the spirit of the appended claim.

It will be understood that when the roller 3 encounters an obstruction or an extra thickness of cotton, the said roller will come to a state of rest as hereinbefore described, while the gear wheel 7 continues to rotate

with the shaft 18. Inasmuch as the upper end of the arm 14 is at this time below the inner end of the finger 20 and the gear wheel 6 is at a state of rest, the teeth of the gear wheel 6 will have a tendency to push against the edge of the gear wheel 7 and thus the said gear wheel 7 is forced away from the gear wheel 6 and the roller remains at rest while the shaft 18 and the gear wheel 7 continue to rotate.

Having described my invention, what I claim as new, is:

In combination with a cotton card having a feed plate, a stop motion comprising a shaft journaled above the feed plate and carrying the roller which is located above the feed plate, said shaft being free for vertical movement in its bearings, a gear wheel carried by the shaft, a rod slidably mounted and arranged to move vertically with the shaft, a lever suitably fulcrumed and pivotally connected at one end with said rod, an arm pivotally connected with the other end of the lever, a stand slidably receiving the upper end of said arm, a bearing slidably mounted in said stand and having a finger which normally lies against the side of the said arm, a shaft journaled in the last mentioned bearing and a gear wheel carried by the last mentioned shaft and normally meshing with the first mentioned gear wheel.

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

WALKER W. CRENSHAW.

Witnesses:
C. A. MOORE,
M. C. DAWKINS.