Feb. 28, 1939. J. B. RASOR 2,148,501

ATTACHMENT FOR PNEUMATIC CONVEYERS

Filed Oct. 4, 1937

Fig. 1.

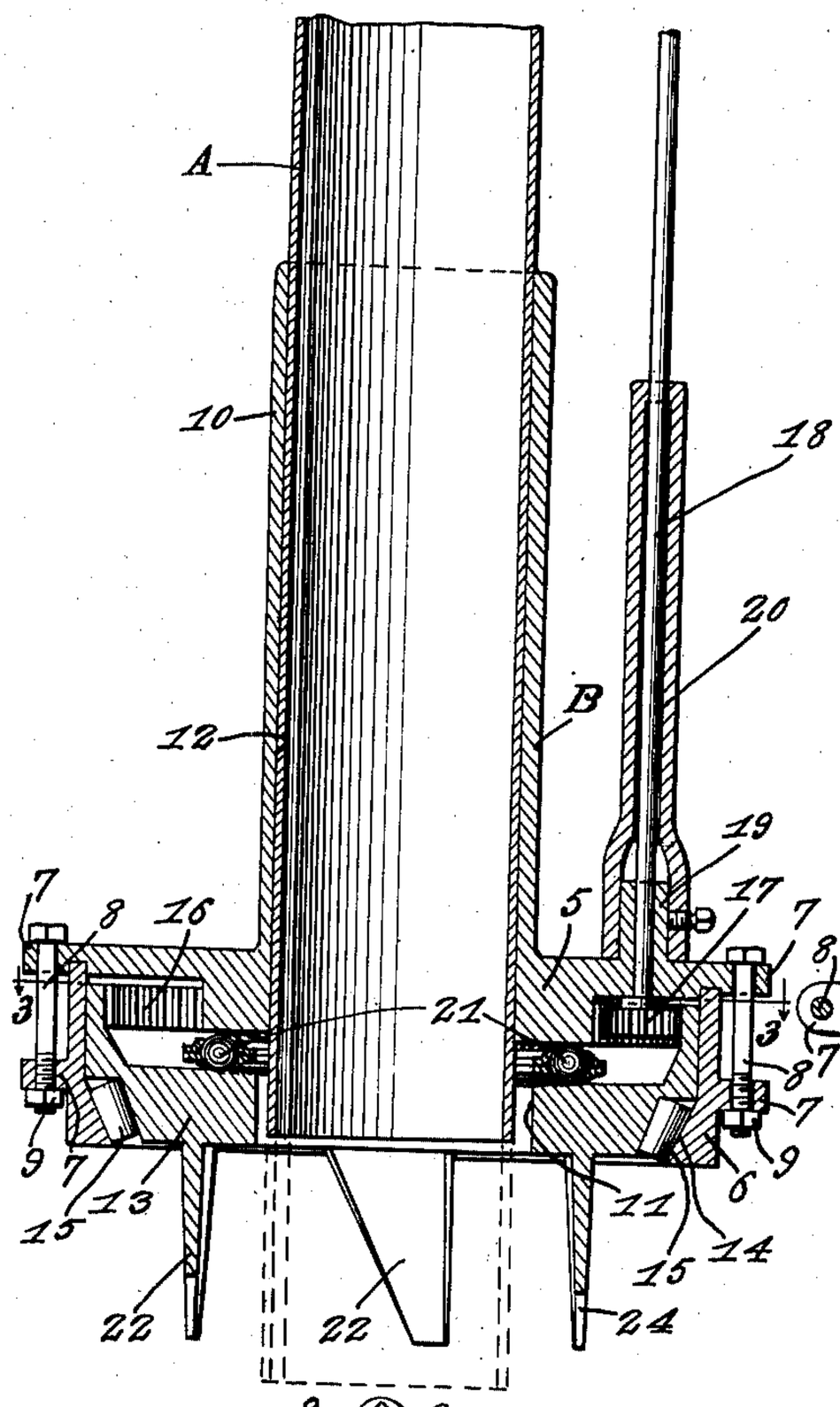


Fig. 3.

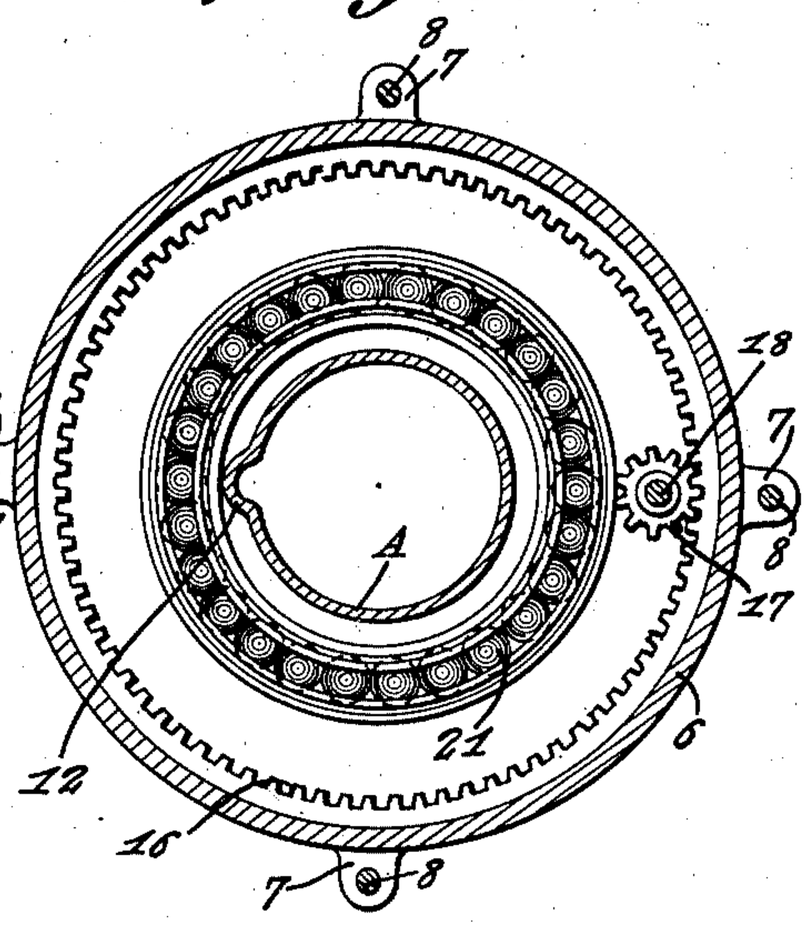
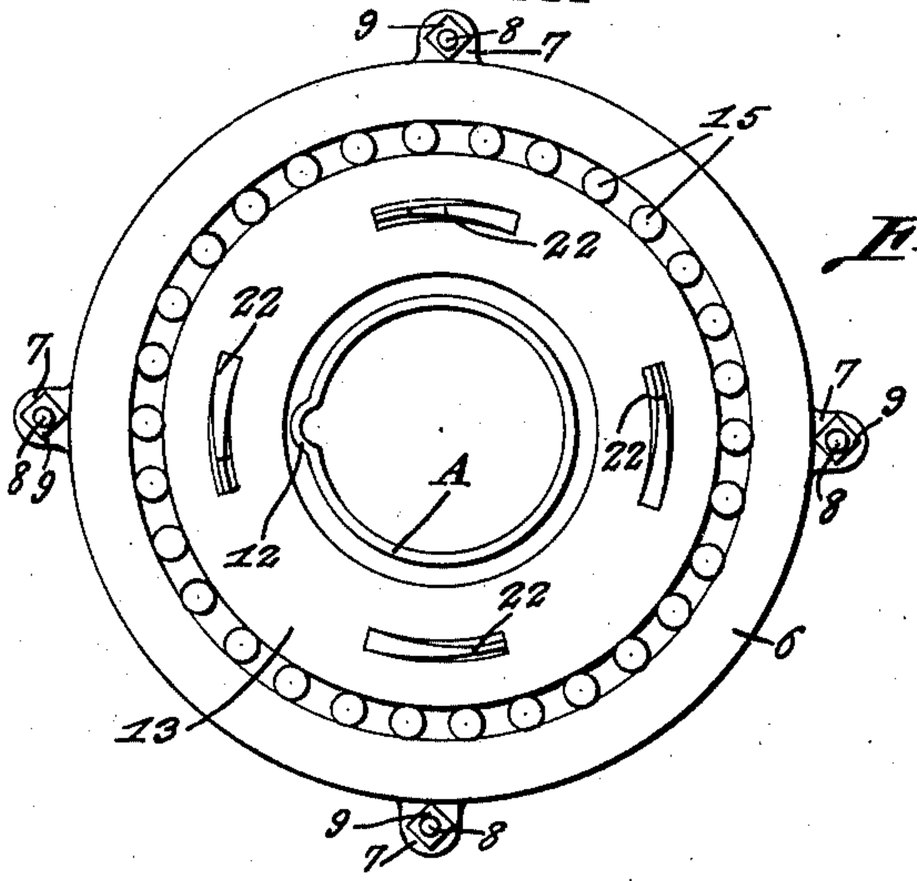


Fig. 2.



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ATTACHMENT FOR PNEUMATIC CONVEYERS

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Application October 4, 1937, Serial No. 167,268

1 Claim. (Cl. 302—58)

The invention relates to a pneumatic gin feeder and more especially to an attachment for a pneumatic conveyer.

The primary object of the invention is the provision of an attachment of this character, wherein the same is effective for loosening cotton within a wagon for carriage by the pneumatic conveyor to the gin house or ginnery and in this manner eliminating hand loosening of the cotton within the wagon or the like.

Another object of the invention is the provision of an attachment of this character, which is automatic in its working, being driven from an electric motor or other source of power and is susceptible of adjustment and separation from the conveyer when not necessary for use.

A further object of the invention is the provision of an attachment of this character, wherein the cotton within the wagon or other carrier is loosened in an efficient manner and with rapidity and avoids or eliminates the difficulty and inconvenience of scratching or raking the cotton loose by hand.

A further object of the invention is the provision of an attachment of this character, which is simple in its construction, thoroughly reliable and efficient in operation, automatic in the working thereof, strong, durable, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention and pointed out in the claim hereunto appended.

In the accompanying drawing:

Figure 1 is a vertical sectional view through a pneumatic conveyer and the attachment constructed in accordance with the invention.

Figure 2 is an end view thereof.

Figure 3 is a sectional view on the line **3—3** of Figure 1 looking in the direction of the arrows.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A designates generally a pneumatic conveyer, only a portion thereof being shown, and B generally the attachment constituting the present invention and hereinafter fully described.

This attachment comprises a two-part head involving the inner disk-like part **5** and the outer circular rim-like part **6**, respectively, which in the assembly constitute a gear casing, the parts exteriorly thereof being formed with bolt-receiving eyes **7** for bolts **8** carrying nuts **9** which fasten the parts **5** and **6** together.

The part **5** is formed with a center sleeve **10** slidably telescoped over the conveyer tube A. The conveyer tube A and the sleeve **10** have outstruck therefrom longitudinally disposed interfitted guide ribs **12** so that the attachment is free for sliding movement but is held against rotation on the conveyer A.

The part **6** accommodates therein a rotor **13** having a clearance **11** for the tube A and is provided with an internal annular retaining shoulder **14** for a raceway for bearing rollers **15** which are interposed between the rotor **13** and the said part **6**. This rotor **13** has formed therewith an internally toothed gear **16** meshing with a driving pinion **17**, its power shaft **18** being journaled at **19** in a bearing formed on the part **5**. This power shaft **18** extends through a sleeve **20** and is operated from any suitable source of driving energy, for example, an electric motor (not shown).

Interposed between the part **5** and the rotor **13** concentric to the conveyer A are antifriction rollers **21** for minimizing friction in the operation of said rotor **13**.

Formed on and projecting outwardly from the rotor **13** concentric to the conveyer tube A are saw teeth-like tines or prongs **22**, which, on rotation of the rotor, function to loosen cotton within a wagon or other carrier so that it will be conveyed with rapidity through the conveyer tube A to a ginnery or gin house.

The sleeve B slides upon the conveyer tube A so as to recede thereon from the free end of the same when reaching close to the floor of the wagon or other carrier and in the working of the attachment the cotton within said wagon or carrier will be loosened so that such cotton will pass into the conveyer tube A for conveyance to the ginnery or gin house, suction action being had within the conveyer tube A in the usual well-known manner and in such fashion hand picking or loosening of the cotton within the wagon or conveyer is avoided.

What is claimed is:

The combination with a pneumatic conveyer tube, of an attachment comprising a two-part head including an inner disk-like part and an outer circular rim-like part, respectively, means separably interfitting the parts with each other, a central sleeve slidably telescoped over the conveyer tube and extending centrally from the disk-like part, an internal annular shoulder formed on

the rim-like part, a rotor fitting within the rim-like part and having an internally toothed gear and also provided with a clearance opening for the said conveyer tube centrally thereof, antifriction means interposed between the said parts of the head and the said rotor, the said shoulder interiorly of the rim-like part being effective as a raceway for the said antifriction means, power means having a gear meshing with the internally toothed gear of the rotor and concealed between the parts of said head, and prongs projecting from the rotor in an annular series concentric to the conveyer tube.

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