Nov. 7, 1939. C. L. HAMILTON 2,178,934

DROP PIPE FOR GINS

Filed April 15, 1938

Fig. 1.

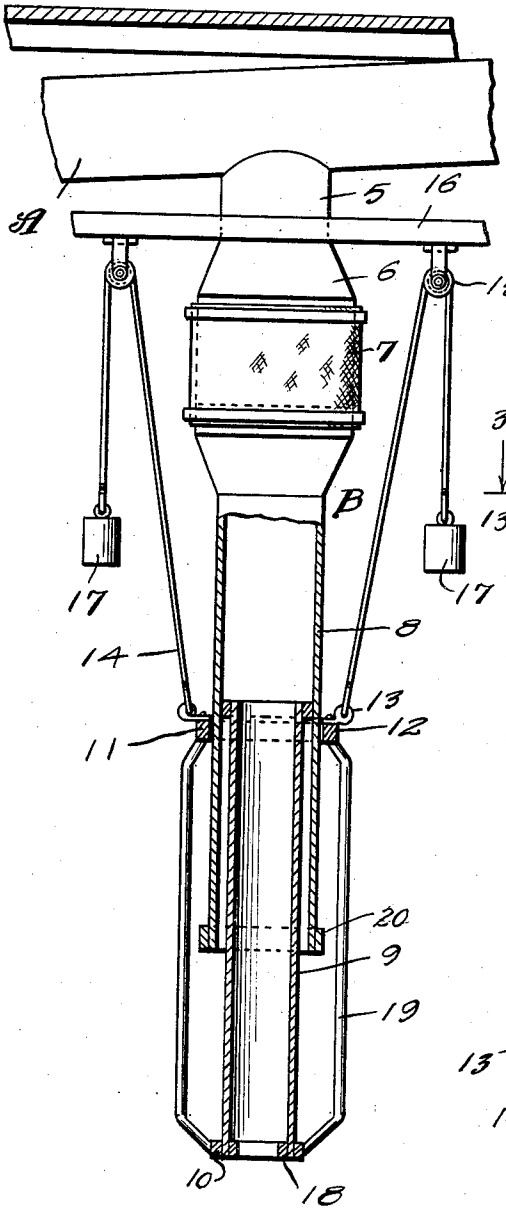



Fig. 2.

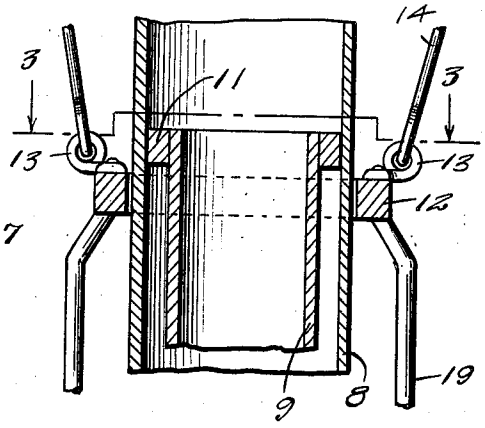
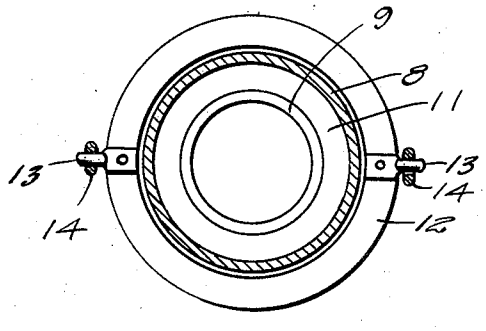



Fig. 3.




C.L. Hamilton

INVENTOR

BY Victor J. Evans & Co.

ATTORNEYS

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## DROP PIPE FOR GINS

Curtis Lee Hamilton, Baxley, Ga.

Application April 15, 1938, Serial No. 202,345

1 Claim. (Cl. 302—34)

The invention relates to a drop pipe for a ginning machine and more especially to an adjustable sectional drop pipe.

The primary object of the invention is the provision of a pipe of this character, wherein the same includes telescopically interfitted sections, these serving for the collection of cotton from a truck, wagon or the like for delivery to the ginning machinery and one of these sections is susceptible of adjustment relative to the other for the lengthening or shortening of the pipe in the use thereof while the other pipe is flexibly suspended to permit such pipe to be handled for the proper placement thereof with respect to a load within a truck or other vehicle.

Another object of the invention is the provision of a pipe of this character, wherein the telescopically fitted sections are assembled with each other so as to avoid interference in the adjustment of one of the sections with respect to the other, particularly should a section thereof become dented or otherwise damaged, which ordinarily would retard or interfere with the sliding action thereof with respect to the other section of said pipe, the section telescopically fitting within the other section being of less cross sectional diameter than said other section and are assembled to effect airtight joints therebetween.

A further object of the invention is the provision of a pipe of this character, wherein the slidable section telescopically fitting within another section carries exteriorly thereof handles for the easy and convenient adjustment of said sliding section with relation to the other section of said pipe and such sliding section is counterbalanced in the assembly of the sections with each other.

A still further object of the invention is the provision of a pipe of this character, wherein the construction thereof enables adjustment so that cotton can be quickly taken up from a wagon or the like and fed to the conveyor for the carriage thereof to the gin, the pipe being of novel construction in its entirety.

A still further object of the invention is the provision of a pipe of this character, which is simple in its construction, thoroughly reliable and efficient in operation, readily and easily adjusted, 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 fragmentary side elevation of a cotton conveyor for ginning machinery showing the drop pipe constructed in accordance with the invention and partly in section associated therewith.

Figure 2 is a fragmentary enlarged vertical sectional view through the drop pipe.

Figure 3 is a sectional view on the line 3—3 of Figure 2 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 portion of a conveyor of ordinary construction and constitutes a pneumatic tube entering the ginning house at any suitable part and which may extend far enough to connect the gin house with a distant cotton house. This tube A is formed with a depending nipple 5 having an outwardly flared portion 6 to which is connected a flexible tubular section 7 which also has connection with a drop pipe B constituting the present invention and hereinafter fully described.

The drop pipe B comprises upper and lower pipe sections 8 and 9, respectively, the latter section in cross section being the lowermost section of the tube and is of less diameter than the cross sectional diameter of the section 8 and is telescopically fitted within the latter for sliding operation.

The section 9 at its inner end within the section 8 carries an external guide ring 11 and in this manner the said section 9 is centered with relation to the section 8 and spaced therefrom yet effecting an airtight joint or connection between the said sections 8 and 9 without liability of the walls in confronting relation to each other of these sections making contact one with the other for any appreciable distance of the length thereof and thus in event of the denting of the section 9 there will be no interference with the adjustment of the latter which slides relative to the said section 8 of the pipe.

The smaller cross sectional diameter of the pipe 9 with respect to the pipe 8, which pipe 9 is slidably fitting within the pipe 8, assures the most forcible characteristic of the air at the intake of the drop pipe B. In other words, the air has the greatest force at the intake end of the drop pipe B, the inlet thereto being at the lowermost or outer end of the said pipe 9 and this is due to the contraction of the section 9 of the pipe.

Loosely fitted about the section 8 is a suspension hoop or ring 12 carrying eyes 13 at diametrically opposite points thereof with which are connected weighted cables 14, these being trained over guide pulleys 15 depending from an elevated support 16 and carrying the counterweight 17. The section 9 at its outer open end is formed with two mouth rims 10 and 18, respectively, one being inside and the other outside, with which are joined opposed elongated loop handles 19, these being joined with the hoop or ring 12 and by such handles 19 the section 9 can be slidably manipulated in its telescopic fitting within the section 8 of the pipe and in this fashion the pipe is susceptible of extension or contraction. The weight of the section 9 and the handles 19 as well as other adjunct parts in association therewith is counterbalanced by the weights 17. In the manual handling of the drop pipe, the user at his option can extend or retract the section 9 with relation to the section 8 and also this pipe can be swung to the desired position due to the flexible section 7 connecting the said pipe with the inlet nipple 5 to the conveyor A. As stated, the drop pipe is used for collecting or removing cotton from trucks or the like and the feeding thereof into the conveyor A to be carried into the ginning mechanism for the ginning thereof.

The secton 8 at its outermost end has externally thereon a band 20 to give strength and rigidity to such end and maintain cylindrical contour thereto.

What is claimed is:

In a drop pipe for gins, comprising an upper flexibly suspended tubular section of uniform cross sectional diameter throughout its extent, a lower tubular section of considerably less cross sectional diameter than said upper section and telescopically fitted with the latter for vertical displacement, a packing ring fixed to the lower section exteriorly thereof at its end innermost within said upper section and holding the said lower section uniformly spaced from said upper section, an inside annular band within the lower section at its lowermost end for effecting a contracted inlet thereto, an outside annular band encircling the lowermost end of the lower section and in the plane of the inside band for coaction therewith in forming a double rim formation thereto, an outside ring on the lowermost end of the upper section, a hoop loosely fitting the upper section externally thereof for abutting the outside band of said upper section and limiting the displacement in one direction of the lower section with respect to said upper section, and elongated loop handles between and joined with the said hoop and the outside band at the lowermost end of the lower section, respectively.

CURTIS LEE HAMILTON.