H. J. ROGERS.

STRIPPING DEVICE FOR FEEDERS.

APPLICATION FILED JULY 23, 1914.

1,146,282.

Patented July 13, 1915.

2 SHEETS—SHEET 1.

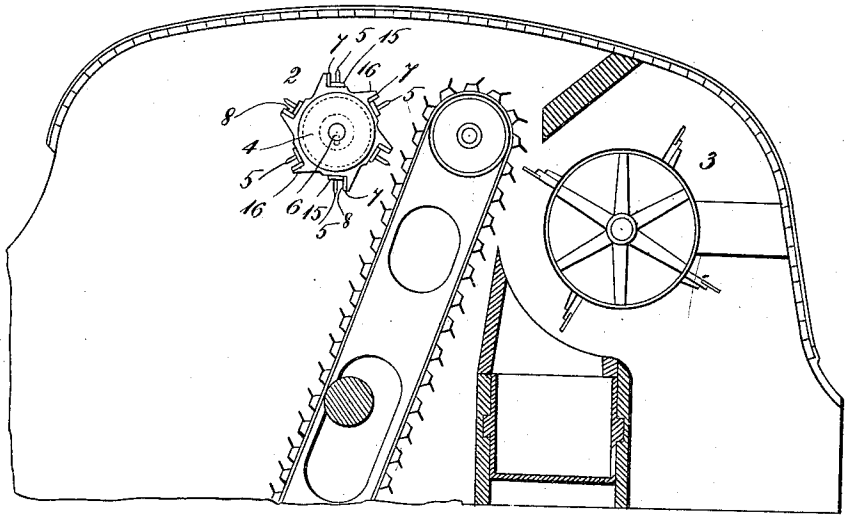


Fig. 1.

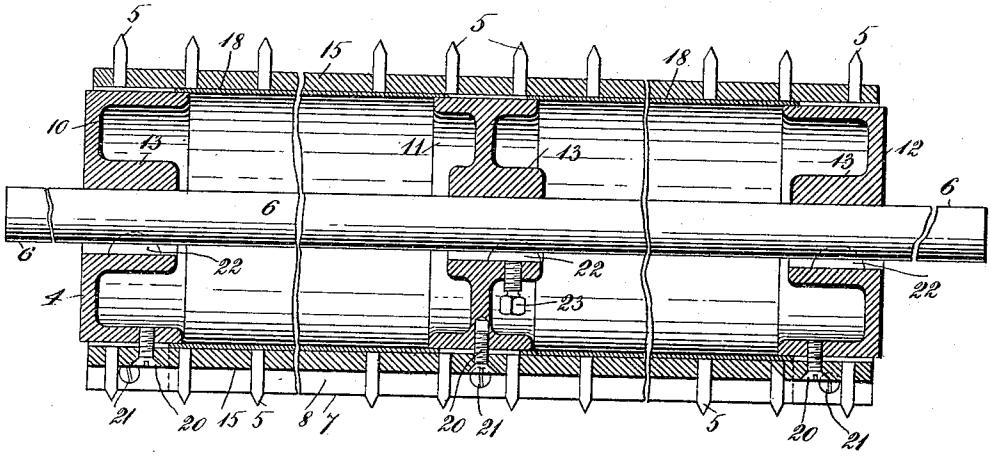


Fig. 2.

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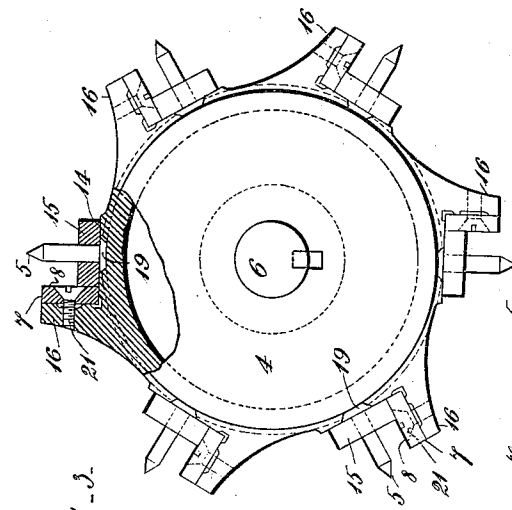


Fig. 3.

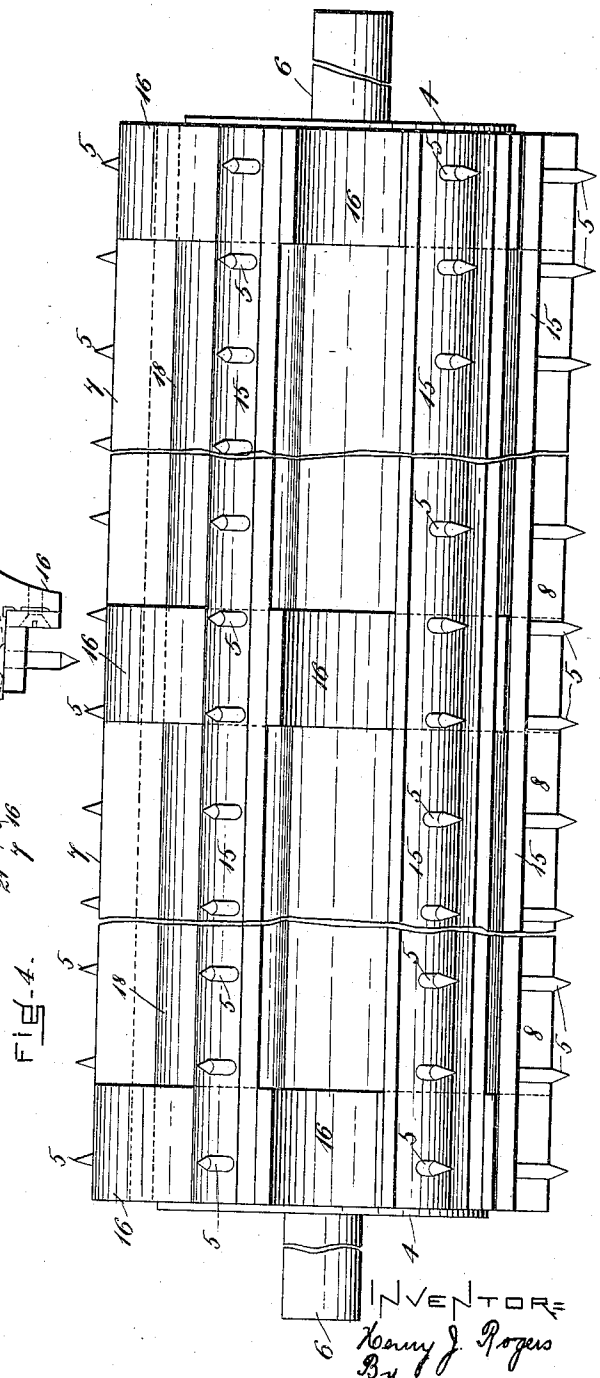


Fig. 4.

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UNITED STATES PATENT OFFICE.

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STRIPPING DEVICE FOR FEEDERS.

1,146,282. Specification of Letters Patent. **Patented July 13, 1915.**

Application filed July 23, 1914. Serial No. 852,725.

To all whom it may concern:

Be it known that I, HENRY J. ROGERS, of Lowell, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Stripping Devices for Feeders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

My invention relates to an improvement in stripping devices for feeders.

Among the objects of my invention is to provide in as simple a manner as possible a stripping device capable of freeing itself from cotton or fiber that may adhere to its pins or rods. Especially is it my object to provide a construction comprising a pin roll in which the cleaning of the roll is accomplished without the use of a cleaning apron and associated roll such as are commonly employed and without the necessity of making the pins or rods movable, which typifies another common practice in such constructions. In other words, it is my object to provide a self-cleaning device having stationary pins or rods.

The invention can best be seen and understood by reference to the drawings in which the improved device or roll is shown with such associated parts of the feeder as are necessary to a proper understanding of the arrangement and operation of the roll and in which—

Figure 1 shows a side elevation thereof. Fig. 2 is a longitudinal vertical section of the device embodying my invention. Fig. 3 is an end elevation thereof, and Fig. 4 is a side elevation of the device.

Referring to the drawings, 1 represents the lifting apron of the feeder, 2 the stripping device embodying my invention, and 3 the doffer beater.

The stripping device 2 comprises a spiked roll or rotatable carrier having a body 4 and separate rows of pins or pointed rods 5 projecting therefrom. The roll is mounted upon a shaft 6 and operates in the usual manner, its pins 5 striking the excess cotton or fiber from the lifting apron as the roll is rotated.

Intimately associated with the pins of the roll and arranged to extend back of the pins in relation to the direction of the roll's rotation, are fixed clearer bars 7 which operate automatically to absolutely prevent cotton or fiber adhering to the teeth and being carried around the roll. The clearer bar 7 for each row of pins is of less height than the pins to which it is adjacent and is arranged sufficiently far from such pins as not to interfere with their proper action in stripping the excess cotton from the lifting apron. The bar is, however, set so near the pins as to prevent by its interposition the cotton or fiber from lodging on the pins as it is stripped from the lifting apron, and to exert also a striking or prying influence during the rotation of the roll against any cotton or fiber that may tend to follow the pins as it is drawn from the apron, thereby stripping it from the pins. In practice I employ a roll 5 1/4″ in diameter with teeth projecting about 1 1/8″ from the peripheral surface of the roll. The projection of the clearer bar is about 7/8″ and the clearer bar is arranged to leave a space of about 3/8″ between its inner face 8 and the pins to which it is adjacent.

It is apparent of course that a stripping roll or device embodying the above principles may be made in a variety of ways. In the construction to which reference will now be made the stripping roll and associated parts are made sectional in character, which is the preferred construction and one which permits of the replacement of any part as occasion may require. By reference especially to Figs. 2 and 4, it will be seen that the roll is made up as follows: An interior structure consisting of spaced cylindrical members 10, 11 and 12, which supports and gives form to the exterior structure of the roll. Each of the members 10, 11 and 12 is provided with a hub 13 through which the shaft 6 extends. Around the periphery of its rim each member is formed with a series of raised sections 14 forming rests for pin supporting bars 15. The raised sections 14 merge into protuberances or bosses 16 to which clearer bars 7 are secured. The spaces between the members 10, 11 and 12 are closed by cylindrical sections 18 which fit telescopically onto the rims of these members outside the raised portions 14 and 16 thereof. The pin supporting bars 15 are studded with a series of pins 5 which extend through the bars from the under side thereof and are provided with heads 19 which

bear against the under sides of the bars, preventing the pins from drawing through. The pin supporting bars are supported by the raised sections 15 of the members 10, 11 and 12 forming rests therefor as aforesaid, and are secured thereto by means of screws 20 tapped into the respective members. Thus arranged, the heads of the pins will bear against the members 10, 11 and 12 and also against the interposed sections 18, which bearing holds the pins securely in place.

The clearer bars 7 are arranged just back of the respective sets of pins and are held in place by securing the same to the protuberances or bosses 16 by means of screws 21 tapped into said bosses.

The roll is secured to the shaft 6 by means of keys 22 interposed between the shaft and the hubs of the respective members 10, 11 and 12. Further retention against longitudinal displacement is secured by means of a set screw 23 which extends through the hub of the intermediate member 11 and has bearing against the shaft, or rather key secured thereto, as shown in Fig. 4.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States:

1. A stripping device for feeders comprising a roll having stationary pins projecting from the body thereof, and a clearer bar for said pins projecting from the body of said roll and lying just back of said pins.

2. A stripping device for feeders comprising a roll having stationary pins projecting from the body thereof, and a stationary clearer bar for said pins projecting from the body of said roll back of said pins and lying closely adjacent thereto and spaced therefrom.

3. A stripping device for feeders comprising a roll having projecting pins and a clearer bar for said pins carried by said roll to project therefrom a distance less than the projection of said pins, said bar being arranged just back of said pins and spaced therefrom.

4. A stripping device for feeders comprising a roll having rows of projecting pins and clearer bars for said pins carried by said roll to project therefrom a distance less than the height of the pins to which they are adjacent, said bars being arranged just back of said respective rows of pins and spaced therefrom.

5. A stripping device for feeders comprising a roll having rows of stationary projecting pins and stationary clearer bars for said pins carried by said roll, said bars being arranged respectively just back of said respective rows of pins and spaced therefrom, said bars projecting from said roll a distance less than the projection of the pins to which said bars are adjacent.

6. A stripping device for feeders comprising a roll having rows of stationary projecting pins and stationary projecting clearer bars for said pins, said bars being carried by said roll to lie back of said rows of pins, spaced therefrom but intimately associated therewith for the purposes specified.

HENRY J. ROGERS.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."