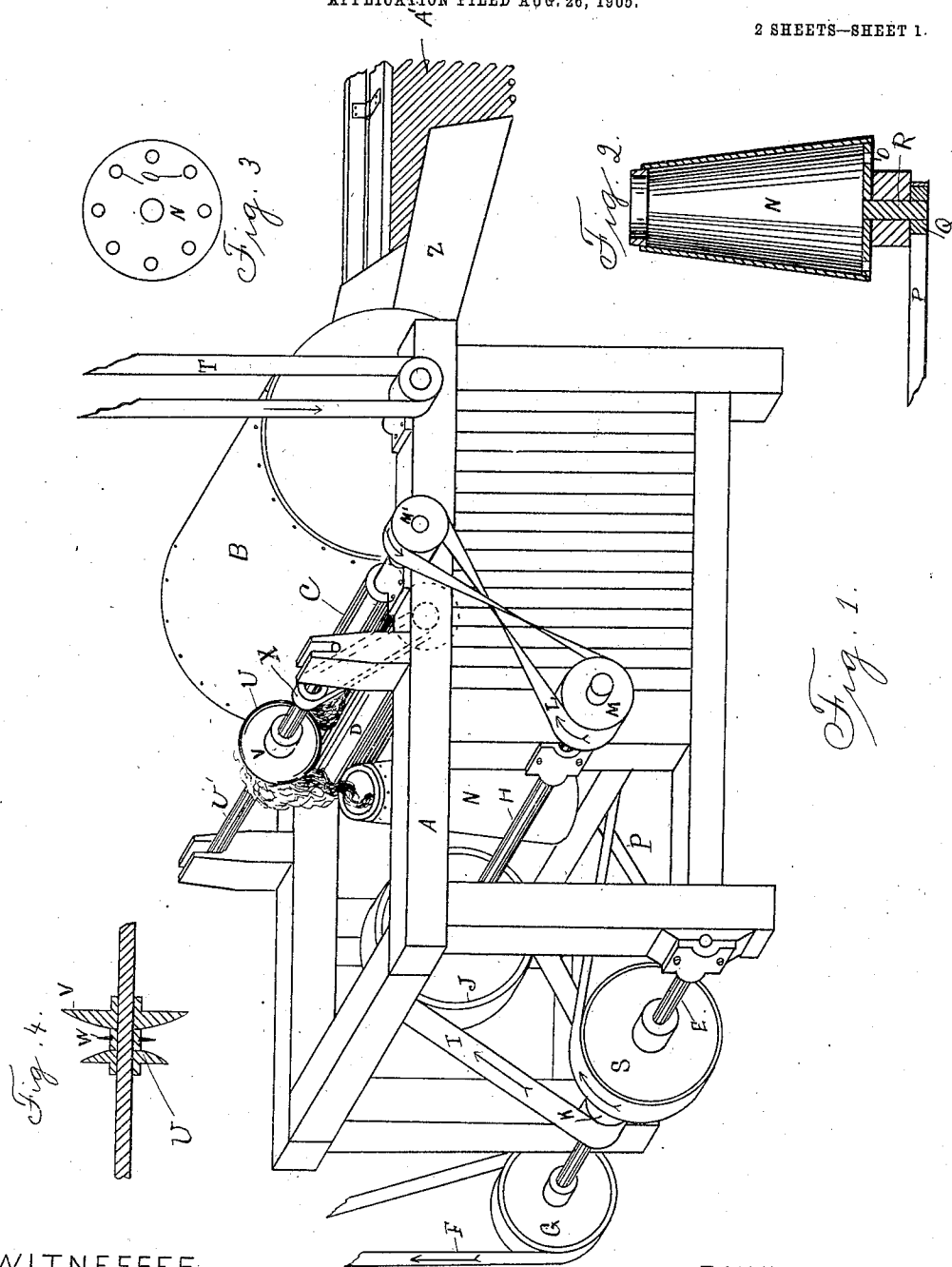


No. 836,741.

PATENTED NOV. 27, 1906.

C. H. DICKSON.  
HAIR PICKING MACHINE.  
APPLICATION FILED AUG. 26, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

Marion Richards.

Lucy Varill.

INVENTOR:

Charles H. Dickson.

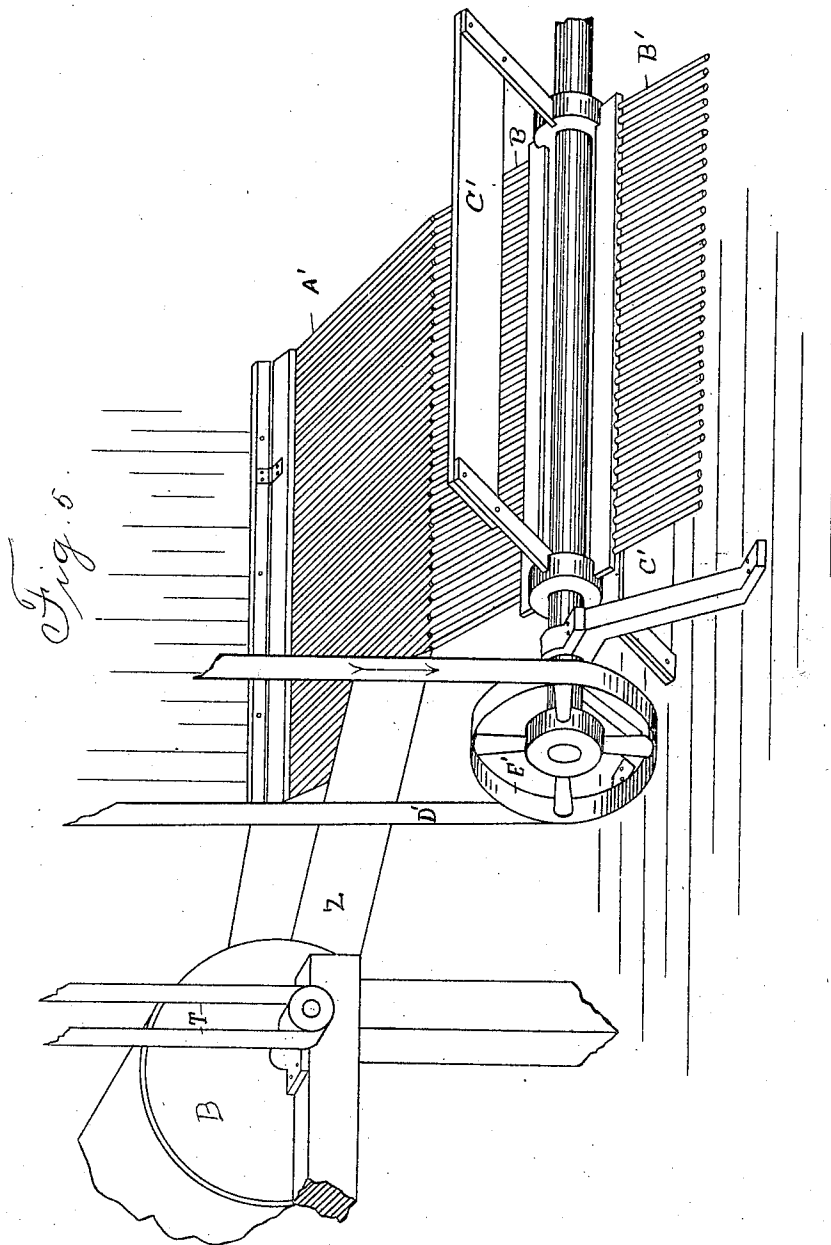
by Clifford V. Clifford  
Attorney

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2 SHEETS—SHEET 2.



WITNESSES:

*Marion Richards.*

*Lucy Verrill.*

INVENTOR:

*Charles H. Dickson*  
*By Clifford Verrier Clifton*  
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# UNITED STATES PATENT OFFICE.

CHARLES H. DICKSON, OF PORTLAND, MAINE, ASSIGNOR TO GEORGE M. CRAM, OF PORTLAND, MAINE.

## HAIR-PICKING MACHINE.

No. 836,741.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed August 26, 1905. Serial No. 275,918.

*To all whom it may concern:*

Be it known that I, CHARLES H. DICKSON, a citizen of the United States, and a resident of Portland, in the county of Cumberland and State of Maine, have invented new and useful Improvements in Hair-Picking Machines, of which the following is a specification.

My invention relates to improvements in machines for picking hair known in commerce as "mattress-hair," and particularly to that variety of hair which is made into ropes for the purpose of imparting to it a curly character.

The object of the present invention is to provide a machine for doing this work.

In the drawings herewith accompanying and making a part of this application, Figure 1 is a perspective view of my improved hair-picking machine. Fig. 2 is a central vertical section of the rotary barrel into which the hair rope is placed and by the rotation of which the same is untwisted before it passes to the feeding and picking mechanism. Fig. 3 is a bottom plan view of said barrel. Fig. 4 is a transverse sectional view of the counter-twisting-pulley, and Fig. 5 is a perspective view of the hair-cleaning mechanism.

The same letters of reference refer to like parts in all the figures.

In said drawings, A represents the frame, B the beater-inclosing case, C and D feed-rolls adapted to feed the hair to the beater. Mounted at one end of the frame is a shaft E, driven by a belt F, passing over pulley G. Mounted in the frame is a counter-shaft H, driven by belt I, passing over pulley J and pulley K on shaft E. Feed-roll C is driven by a belt L, passing over a pulley M on the counter-shaft H and pulley M', and feed-roll D is similarly driven by belt and pulley, gears, or other convenient means. (Not shown.)

Positioned in front of the feed-rolls is a rotatable barrel or receptacle N, which may taper upwardly, as seen in Fig. 2, and may be provided with holes O in the bottom thereof for the escape of dirt. This barrel is driven by a belt P, passing over a pulley Q, attached to a vertical spindle R, upon which the barrel is mounted, and over a pulley S on the main shaft. The beater is driven by a belt T. Between the feed-rolls and the barrel and positioned somewhat above them is a counter-twisting grooved wheel U, mounted on a ro-

tatable shaft U'. The side V, against which the rope is thrown as it leaves the barrel, due to the rotation of the barrel, is of greater diameter than the other side, tending to prevent the rope from being thrown off the wheel. The wheel is provided at the bottom of the groove with a series of teeth W. The last-mentioned shaft and wheel are driven by a belt X from roll D. The operation of this part of my improved hair-picking machine is as follows: The rope of tightly-twisted hair is introduced into the barrel. One end is brought up over the grooved wheel and then introduced between the feed-rolls substantially as shown in Fig. 1. A very rapid rotation in a direction opposite the twist in the rope is imparted to the rope-containing barrel which untwists the rope. It sometimes untwists it so much that it will not stand the strain required to draw it over the grooved wheel and through the feed-wheels. Therefore a rotary movement is imparted to the grooved wheel at a speed sufficiently low in comparison with that of the rope-containing barrel to cause the end of the rope to first untwist and then retwist in the opposite direction sufficiently to enable it to withstand the pull imparted to it by the drawing in of the feed-roll. As the hair thus introduced passes through the feed-rolls it is picked by the beater and discharged therefrom either directly or over a spout Z onto an inclined rack A', whence it falls by gravity upon the cleanser, which consists of a series of radially-disposed teeth B' and fans C', the fans and teeth being arranged alternately, as seen in Fig. 5, the teeth and fans tossing the hair and the fans blowing all dirt and dust out of it. The rotary beater is driven in any convenient manner, as by a belt D', passing over a pulley E'.

I make no claim to the feed-wheels and beater mechanism hereinbefore described, my invention relating solely to the means for treating the rope before it reaches the feed-roll and to the means of cleansing the hair after it has been picked.

Having thus described my invention and its use, I claim—

1. In a hair-picking machine, a cone-shaped hair-rope-containing barrel having an unobstructed interior, means for imparting a rotary motion thereto in a direction opposite to the twist of the rope whereby the rope is

untwisted and means for partially retwisting the rope in the opposite direction, in combination with rope-drawing and hair-picking mechanism.

5 2. In a hair-picking machine, a cone-shaped hair-rope-containing barrel having an unobstructed interior, means for imparting a rotary motion thereto in a direction opposite to the twist of the rope, rope-drawing and  
10 hair-picking mechanism and a rotatable grooved wheel interposed between said barrel and said rope-drawing and hair-picking mechanism, adapted to rotate at a speed sufficiently low in comparison with that of the  
15 barrel to cause the rope to retwist somewhat in the opposite direction.

3. In a hair-picking machine, a hair-rope-containing barrel and means for imparting a rotary motion thereto in a direction opposite  
20 to the twist of the rope, rope-drawing and hair-picking mechanism and a rotatable grooved wheel interposed between said barrel and said rope-drawing and hair-picking mechanism, said grooved wheel being adapted  
25 ed to rotate less rapidly than the barrel, one

side of said grooved wheel being of greater diameter than the other.

4. In a hair-picking machine, a hair-rope-containing barrel having an unobstructed interior, means for imparting a rotary motion  
30 thereto in a direction opposite to the twist of the rope whereby the rope is untwisted and means for partially retwisting the rope in the opposite direction, in combination with rope-drawing mechanism, picking mechanism and  
35 cleaning mechanism.

5. In a hair-picking machine, a hair-rope-containing barrel having an unobstructed interior and means for imparting a rotary motion thereto in a direction opposite to the  
40 twist of the rope, in combination with rope-drawing and hair-picking mechanism.

In testimony whereof I have hereunto set my hand, this 22d day of August, 1905, in presence of two subscribing witnesses.

CHARLES H. DICKSON.

In presence of—

ELGIN C. VERRILL,  
MARION RICHARDS.