No. 646,138. Patented Mar. 27, 1900.

C. W. WHITE.

PICKING AND CLEANING MACHINE.

(Application filed Dec. 13, 1898.)

(No Model.)

Fig. 1.

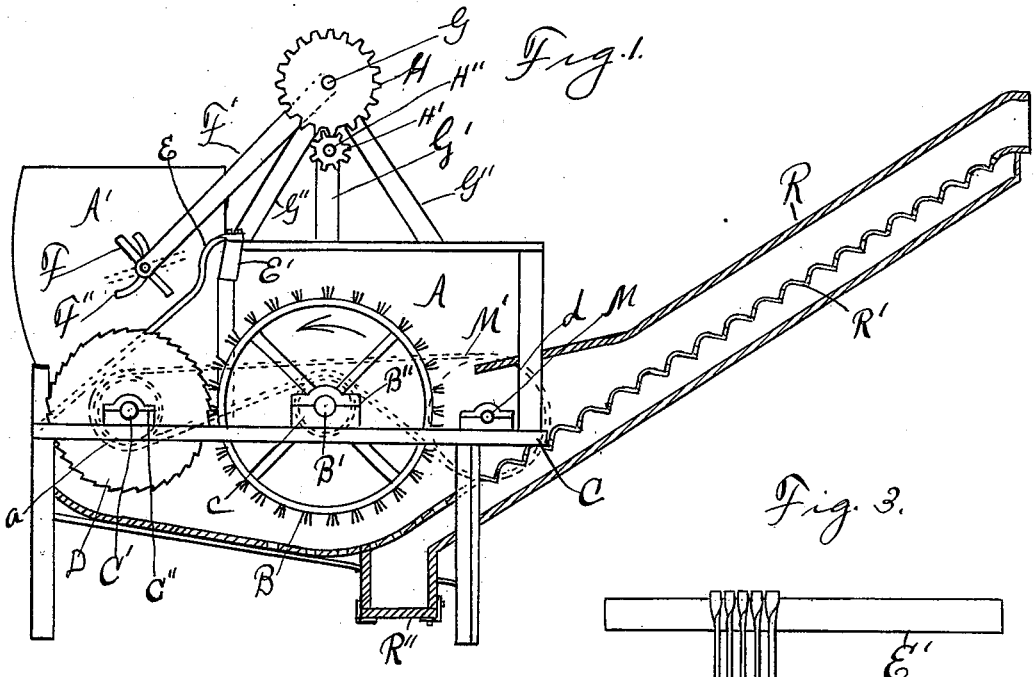


Fig. 3.

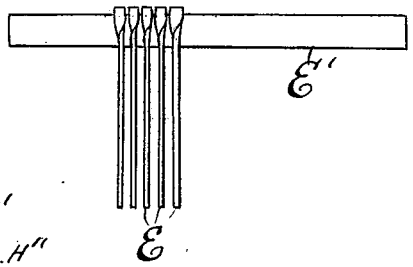
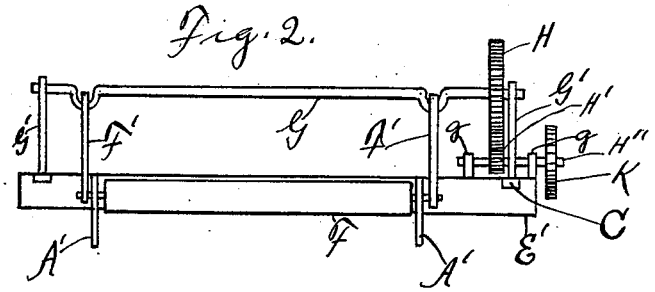


Fig. 2.



WITNESSES:—

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CHARLES WILLIS WHITE, OF WACO, TEXAS.

PICKING AND CLEANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 646,138, dated March 27, 1900.

Original application filed January 15, 1898. Serial No. 667,888. Divided and this application filed December 13, 1898. Serial No. 699,116. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WILLIS WHITE, a citizen of the United States, residing at Waco, Texas, have invented a new and Improved Picking and Cleaning Machine, of which the following is a specification.

This invention relates to machinery for picking or disintegrating and cleaning cotton or other fibrous material; and the object is to construct machinery for preparing material for making mattresses and like articles; and the invention consists of the novel construction and combination of machine elements hereinafter fully described, and more particularly pointed out in the claims, this application being a division of my pending application, Serial No. 667,888, filed January 15, 1898.

Reference is had to the accompanying drawings, which form a part of this application.

Figure 1 is a side elevation of the device with the chute R and lower portion of boxing A shown in section to disclose the parts beyond. Fig. 2 illustrates the mechanism for operating the vibrating feeder. Fig. 3 illustrates the construction of the elastic bars.

Similar characters of reference are used to indicate the same parts throughout the several views.

The picker mechanism is mounted in a suitable frame or box A, and a chute is attached to the frame and leads to suitable devices for forming mattresses. Brush B is mounted on a shaft B′, which is journaled in the sides of box A, the journal-boxes B″ resting on the frame-pieces C. The pickers or saws D are mounted on a shaft C′ and are journaled in boxes C″, which are mounted on the frame-pieces C. Any number of saws D that may be practical are mounted on shaft C′, and elastic bars E are attached to the bar or beam E′ in such a way that the bars alternate with the saws—that is, there is a bar between two saws from side to side of the machine. The bars are attached at the upper ends to the beam E′ and the other ends are free. The bars are preferably constructed of steel, rectangular in cross-section. They are twisted enough so that the broad sides can be turned to the beam E′ for securing the same to said beam and have the same broad sides turned toward the saws. In this way the narrow edges are turned to the material and the bars are strengthened. The bars hold the material in position to be picked by the saws. An automatic feeder is provided. This feeder consists of a bar F, mounted in the crank-arms F′. The ends of the bar F are reduced and project through the feed-box A′, which has a slot F″ in each side for the journals of the feed-bar. These slots may be straight or curved. The slots permit the proper movement of the feed-bar. The arms F′ are mounted on a crank-shaft G, which is mounted in uprights G′ and provided with suitable braces G″. A cog-wheel H is mounted on shaft G for driving said shaft. This cog is driven by a pinion H′, mounted on a shaft H″. Shaft H″ may be driven by a pulley K. Shaft H″ is mounted in suitable uprights *g*. The pulley K may be driven by any suitable motive power. Pulleys *a*, *c*, and *d* are mounted on shafts C′, B′, and M for driving belt M′. A drive-pulley for operating the brush B and the saws or pickers D may be mounted on any one of these pulleys, and this pulley may be driven by any suitable motive power.

The picker-box A is provided with a chute R, attached to said box and leading to mechanism for making mattresses or for other purposes. The chute has a perforated corrugated partition R′, and that part of the chute below the partition serves as a dirt-box. The dust and dirt fall in this box and may be taken out at a door R″. The bottom of the box A may be perforated, and the dirt-box may be extended under the brush. The sides and top and bottom of the chute may be perforated and be provided with suitable doors. The operation may be described as follows: The material is placed in the box A′ and the machine started. The vibrating feeder F knocks the material against the bars E and the saws pick the material to pieces, separating the material to almost single fibers. The fibers are blown through the chute R to the mattress-forming machine and going through the chute dust and dirt fall through the perforations in the partition R′ into the space below the partition and may be removed from

the dirt-box R''. The corrugations in the partition aid in knocking the dust and dirt out of the material.

Many changes may be made in the construction of the various parts without departing from the principle or spirit of my invention. The elastic bars may be arranged in different ways. The object desired to be accomplished is the elasticity of the bars.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a picking and cleaning machine provided with a suitable frame; a shaft mounted in said frame, a series of saws mounted on said shaft, a bar mounted in said frame above and behind said saws, elastic bars attached to said bar and projecting down between said saws, said bars having the broad sides turned to said bar and then twisted so that the broad sides are turned to said saws and the narrow edges turned to the material as it is fed to the saws whereby said saws are made elastic enough and strong enough to permit the feeding of the machine without choking the same, a brush for taking the picked material from said saws, and means for driving said saws and brush.

2. In a picking and cleaning machine provided with a suitable frame; a shaft mounted in said frame, a series of saws mounted on said shaft, a bar mounted in said frame, elastic bars attached rigidly at the upper ends to said bar and having the other ends free and projecting down between said saws, said bars having the broad sides turned to said bar and then twisted so that the broad sides are turned to said saws and the narrow edges are turned to the material as it is fed to the saws whereby said bars are made elastic enough and strong enough to permit the feeding of the machine and to prevent the choking of the same, means for feeding material to said saws consisting of a vibrating bar having bearings in the sides of said frame, arms attached to said bar, and a crank-shaft to which said arms are attached, and means for driving said machine.

In testimony whereof I set my hand, in the presence of two witnesses, this 8th day of December, 1898.

CHARLES WILLIS WHITE.

Witnesses:
J. C. GRESHAM,
R. H. KINGSBURY.