J. F. Greene,
Forming Bats.

No. 49.
31,153.

Patented Jan. 1. 1861.

Fig: 2. Sheet 1.

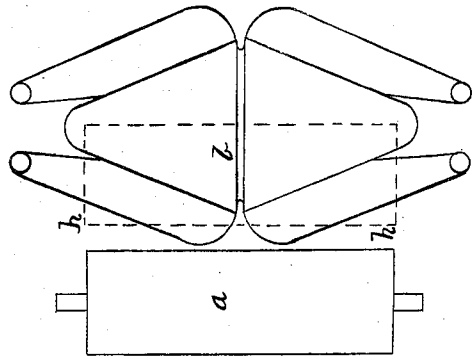
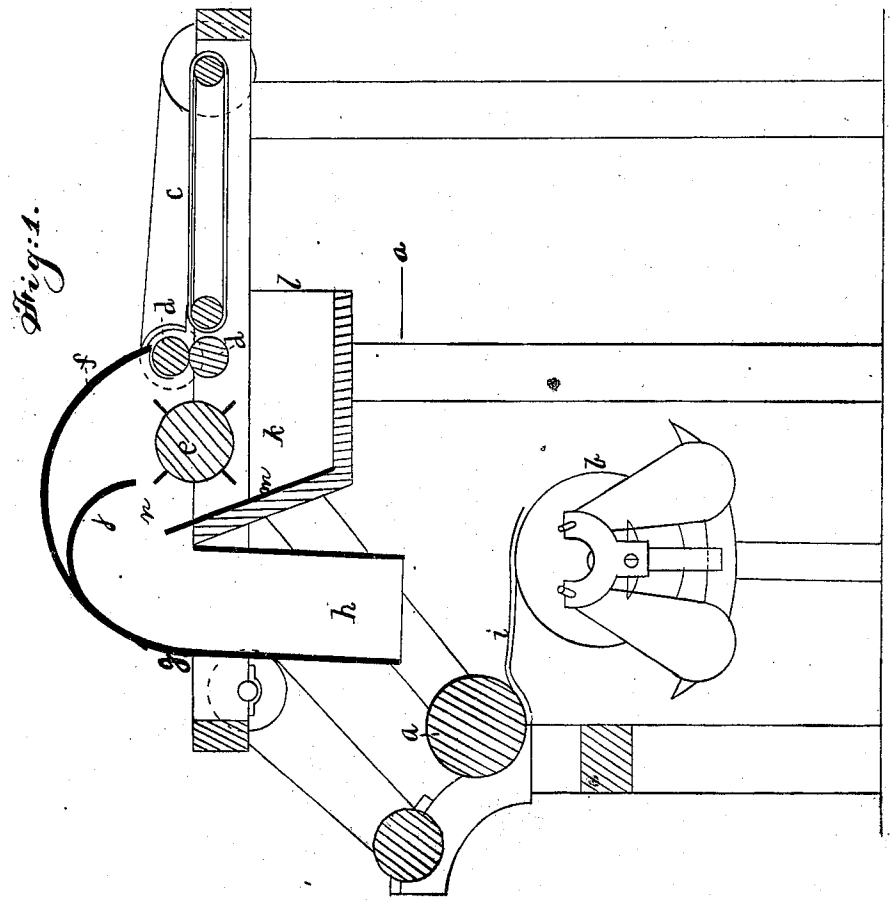


Fig: 1.



Witnesses
Wm. Atkinson
Andrew De Lay

John F. Greene

UNITED STATES PATENT OFFICE.

JOHN F. GREENE, OF BROOKLYN, NEW YORK, ASSIGNOR TO SAMUEL B. TOBEY, OF PROVIDENCE, RHODE ISLAND.

MACHINE FOR MAKING HAT-BODIES.

Specification of Letters Patent No. 31,053, dated January 1, 1861.

To all whom it may concern:

Be it known that I, JOHN F. GREENE, Brooklyn, Kings county, and State of New York, have invented a new and useful Machine for Making Hat-Bodies of Carded Fibers and Disintegrated Fibers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a longitudinal vertical section; and Fig. 2, a horizontal section taken at the line A, *a*, of Fig. 1.

The same letters indicate like parts in both the figures.

The object of my invention is to make hat bodies of fibers which have been obtained from the disintegration of fur and other felts by combining such disintegrated fibers with a sheet or web of fibers as delivered from a carding engine. And to this end my said invention consists in the employment of a picker and its appendages for receiving, picking, and throwing the fragments of fibers obtained from the disintegration of fur and other felts in combination with the doffer of a carding engine, which delivers a bat of carded woolen fibers, and with winding cones on which the bat so formed is wound into hat bodies, by means of which combination the bat of carded fibers as it passes from the doffer of the card to the cones is covered with the disintegrated fibers from the picker which become incorporated therewith.

In the accompanying drawings (*a*) represents a doffer by which a bat of carded wool fibers is delivered from any suitable carding engine, which being well known it is not necessary to represent or describe. As the bat of carded wool fibers is delivered by the said doffer it passes to and is wound upon a pair of rotating and vibrating cones (*b*) constructed and operated in manner well known to hat manufacturers, and which therefore it is not necessary to describe and represent.

In the upper part of the frame there is a picking apparatus which consists of a feeding apron (*c*) on which is to be placed the fibrous substance obtained from the disintegration of fur and other felts by a process invented by me and described in Letters Patent granted to my assignee, Samuel B. Tobey, and bearing date the 12th day of April, 1859, or by any other process producing similar results. The material so placed on the feed apron is presented regularly to a pair of feed rollers (*d*, *d*), which in turn present it to a rapidly rotating picker (*e*), by which it is loosened and thrown and scattered within a surrounding case (*f*). This case is in the form of a hollow semicylinder as represented, and one edge of it extends over the feed rollers, and the other edge (*g*) extends down in a tangent to form the outside of a vertical spout (*h*) extending down to within a short distance of the upper surface of the bat of carded fibers (*i*) as it passes from the doffer to the winding cones.

The axis of the picker is midway between the inner edge of the spout (*h*) and that edge of the cap case (*f*) which extends over the feed rollers, so that the circle of this cap is eccentric to the picker. And within the cap (*f*) there is a plate (*j*) which I denominate a "break current," which extends in a curve from the inner periphery of the cap to within a very short distance of the picker, so as just to clear the teeth. The under part of the picker is inclosed by a bottom case (*k*) open as at (*l*) back of the picker for the admission of air, and in the front part of the said case there is an inclined deflector (*m*), which I prefer to make adjustable. This is simply an inclined plate the ends of which are adapted to slide in suitable grooves in the ends of the case (*k*), and its upper edge is in close proximity with the inner edge of the spout (*h*), leaving an open space (*n*) between its upper edge and the lower edge of the "break current" (*j*), through which alone the material thrown by the picker can reach the spout, so that it shall descend the said spout in a sort of shower to fall onto the bat of carded fibers. In this way I effectually break the current of air, which otherwise would have an injurious effect on the bat of carded fibers below, and deposit the disintegrated fibers regularly on the bat of carded fibers.

What I claim as my invention and desire to secure by Letters Patent is—

1. The combination of the picker with the doffer of a carding engine and the winding cones substantially as, and for the purpose specified.

2. In combination with the rotating picker, the break current plate in the cap case over the picker and the deflecting plate substantially as and for the purpose specified.

JOHN F. GREENE.

Witnesses:
WM. H. BISHOF,
ANDREW DE LACY.