

(No Model.)

4 Sheets—Sheet 1.

E. B. BOHLE.
CARDING ENGINE.

No. 511,749.

Patented Jan. 2, 1894.

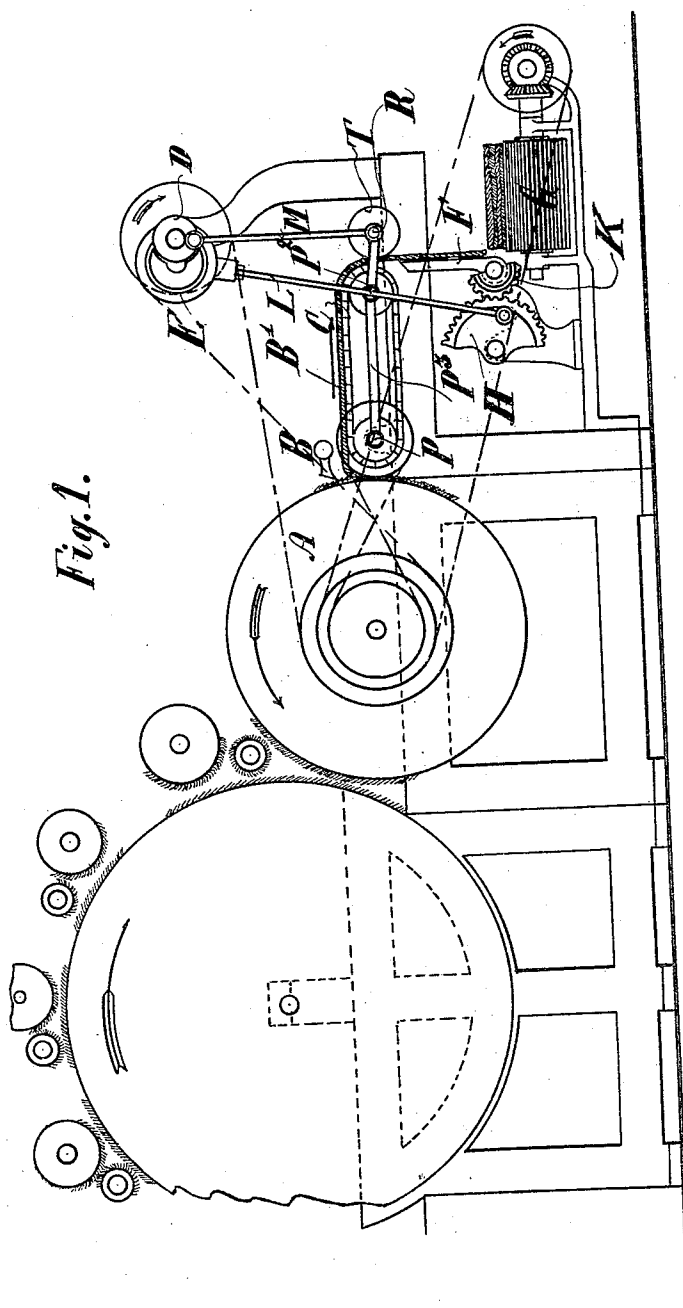


Fig. 1.

Witnesses:

Emil Savor.

Carl Balow.

Inventor:

Ernest Bruno Rohle

by Kopp & Kutz

Attorneys

(No Model.)

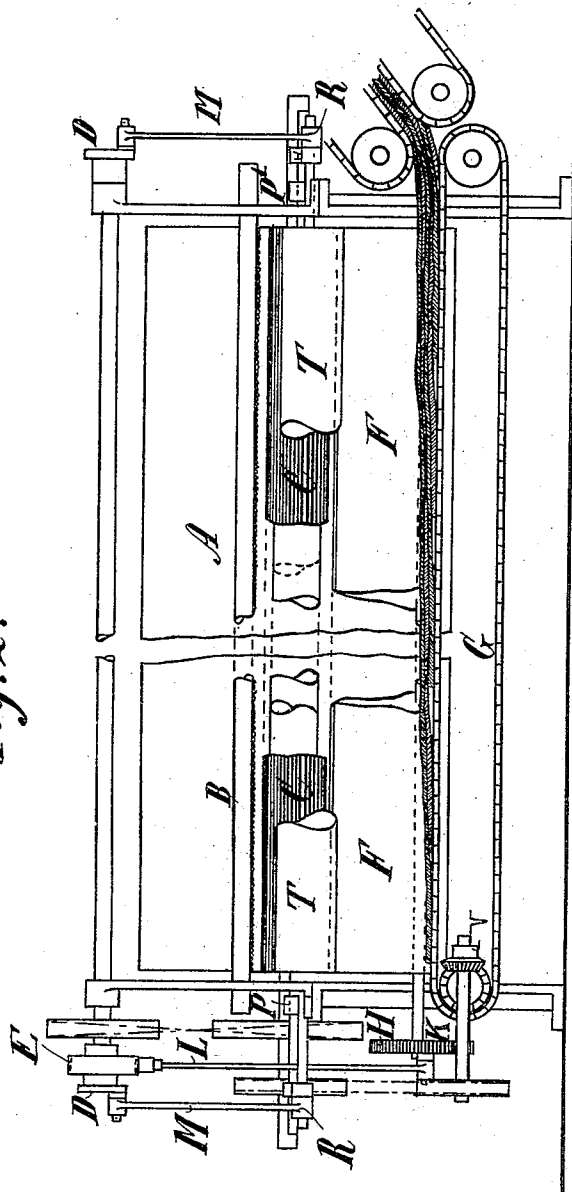
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Fig. 2.



Witnesses:
Emil Savor.
Carl Bülau.

Inventor:
Emil Brunot Bohle
by *W. H. H. H. H.*
Attorneys

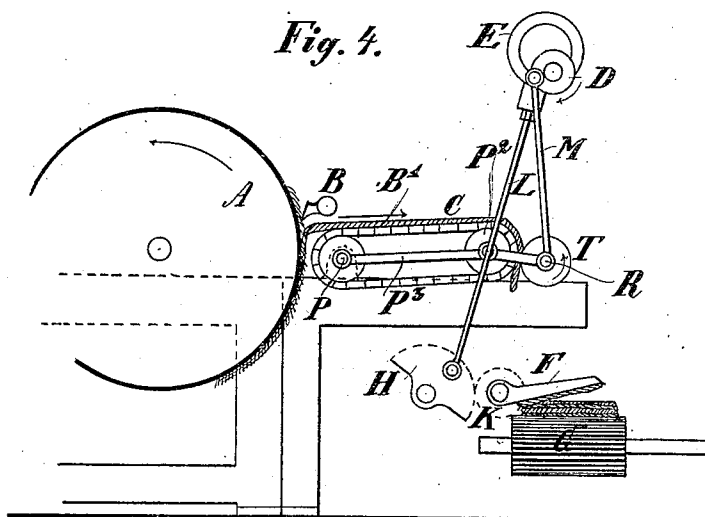
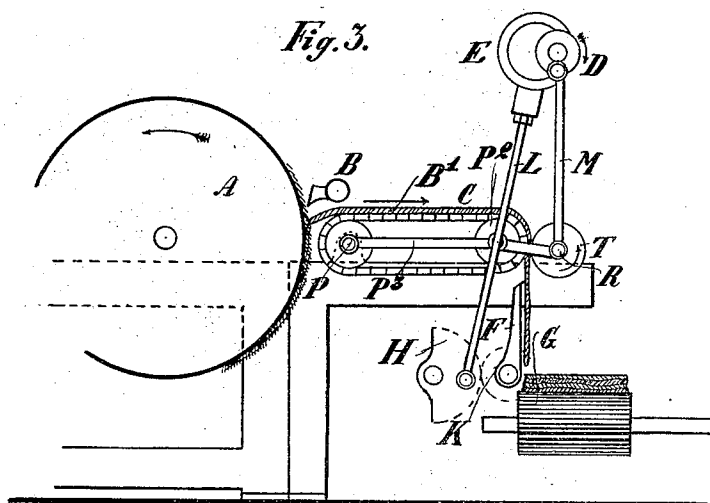
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E. B. BOHLE.
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No. 511,749.

Patented Jan. 2, 1894.



Witnesses:
Emil Lavar.
Carl Pilow.

Inventor:
Ernest Bruno Bohle
by *Wm. M. Lewis*
Attorneys

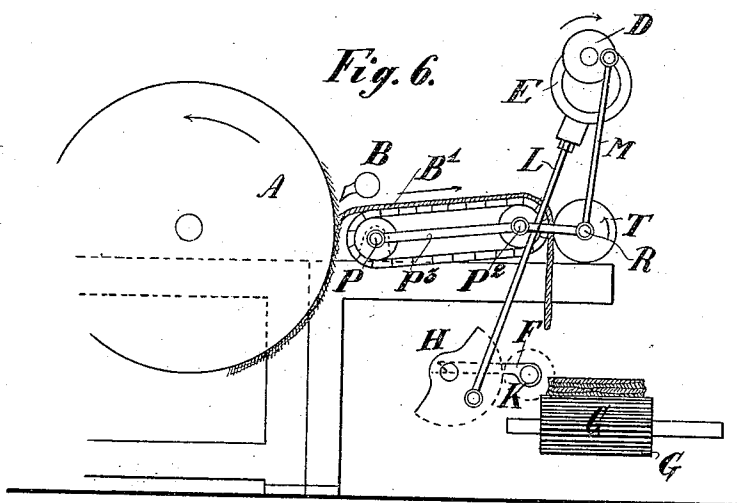
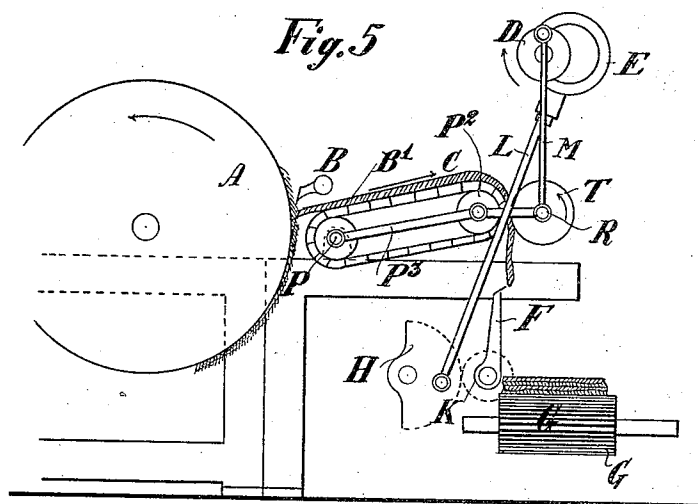
(No Model.)

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E. B. BOHLE.
CARDING ENGINE.

No. 511,749.

Patented Jan. 2, 1894.



Witnesses:

Emil Savor.

Carl Hilow.

Inventor:

Ernst Bruno Bohle

by

R. W. M. H. S.

Attorneys

UNITED STATES PATENT OFFICE.

ERNST BRUNO BOHLE, OF WERDAU, GERMANY.

CARDING-ENGINE.

SPECIFICATION forming part of Letters Patent No. 511,749, dated January 2, 1894.

Application filed December 13, 1892. Serial No. 455,102. (No model.)

To all whom it may concern:

Be it known that I, ERNST BRUNO BOHLE, a subject of the King of Saxony, and a resident of Werdau, in the Kingdom of Saxony, German Empire, have invented certain new and useful Improvements in Carding-Engines, of which the following is a full, clear, and exact description.

In carding engines the carded material detached from the same by the comb, has hitherto been run off onto endless cloths or drums and then formed to a more or less thick fleece as the case may be; the said carded material being taken off the engine lengthwise and in its full width and either transported thus to the next engine or rolled into slivers.

Now by my present invention I do not proceed in the manner above described, but by means of certain mechanism more particularly described hereinafter, I cause certain lengths of the staple to be cut or torn off evenly in strips and delivered onto a table or endless band, moving transversely to the direction of the carded material coming from the engine. By this means the carded material is delivered from the engine in strips having the staple transverse to their length, such strips being then formed to slivers or taken on to the next carding machine.

In order to make this specification more easily intelligible reference is had to the accompanying drawings, forming part of the same, and in which similar letters denote similar parts throughout the several views.

Figure 1 is a side elevation of a carding engine on my improved system. Fig. 2 is an end elevation of Fig. 1. Fig. 3 shows a part side elevation with the beater about to cut off a strip of the carded material and lay the same on the transversely moving table. Fig. 4 shows a side elevation with the beater in the act of cutting off the strip. Fig. 5 shows the beater retiring to its original position after having cut off the strip. Fig. 6 shows the beater in its position of rest.

The carded material B' detached from the carding drum A by the comb B, passes onto the table or endless cloth or band C (for which also a series of rolls may be substituted). One roll of this endless band or table runs in fixed bearings P P', while the second P² is mounted in a frame P³ pivotally attached at P P' and

has its arms lengthened to form bearings at R R for the counter pressure roll T. By means of this arrangement the whole table C may beswung on its pivots in P P' by means of the crank disk D and connecting rod M.

A beater F is pivotally mounted underneath the table C and provided with a toothed segment K which engages in a larger toothed segment H also pivotally mounted in the same standard as the segment K and actuated by a rod L and eccentric E from the main driving shaft of the engine. The beater F is thus caused to describe a semicircle intermittently backward and forward and at each movement forward the same will strike off or detach a strip of the carded material about equal to its own width, as the latter descends from the carding drum A. A receiving carrier table or endless band G is provided, which moves in a direction transverse to that of the carded material coming from the engine. This carrier or endless band may be driven by means of pulleys and belts or any other suitable gearing, from the main driving shaft of the engine.

The apparatus works in the following manner:—When the end of the table C is in its lowest position, the beater F has already commenced its movement from the position shown in Fig. 6 and is about to strike off the strip of carded material as shown in Fig. 3. Immediately the piece has been detached the table C commences to rise again, while the beater F deposits the detached piece on the carrier G. (Fig. 4.) The table C continues to rise and in spite of the fact that the staple is continually issuing downward from the carding drum, between the end of the table C and the roll T, the height to which the end of the said table C moves is sufficient to allow the free passage of the beater underneath the end of the carded material to its position of rest. (Fig. 5.) Having attained the position shown in Fig. 6, it is now ready to strike off the next strip on the subsequent descent of the end of the table C. The strips of carded material detached will thus be laid stepwise on the transversely moving table G [Fig. 2] with the staple lying in a direction transverse to that of the material coming from the machine and may then be rolled to slivers or conducted to the next carding engine by means

of the ordinary transport devices as shown at Fig. 2.

I claim as my invention—

1. In a carding engine, the combination of
5 an intermittently actuated beater to strike
off the dependent end of the carded material
and an endless band or table adapted to move
transversely to the direction of the carded
material coming from the drum, and to re-
10 ceive said strips struck off by the beater sub-
stantially as described.

2. A device for delivering carded material
in strips having the staple transverse to their
length, consisting of a pivotally attached table
15 C onto which the carded material is fed,
means for actuating the free end of the same
up and down, a beater F arranged underneath
said table and means for actuating the said
beater intermittently backward and forward
20 in the manner and for the purpose substantially
as described.

3. The combination of the endless band
forming the table C stationary bearings P P',
to support one of the rolls of said endless
25 band a frame P³ pivotally attached at P P',
a roll P² and counter pressure roll T mounted

in said frame, a crank disk D on the driving
shaft and connections from the crank disk
to the movable end of the table C, a beater
F pivotally mounted as specified and having
30 a toothed segment K, a segment H to engage
said segment K, eccentric E and rod L to act-
uate the segment H and means for trans-
porting the strips cut off substantially as de-
scribed.

4. The combination of the pivotally at-
tached table C, means for actuating the same,
the beater F pivotally mounted underneath
said table, means for intermittently moving
the said beater in a semicircle backward and
40 forward, an endless band or table G mounted
on rolls to run transversely to the direction
of the carded material coming from the en-
gine and means to actuate said table or band
G substantially as described.

In witness whereof I have hereunto set my
hand in presence of two witnesses.

ERNST BRUNO BOHLE.

Witnesses:

ERNST GOTTH. BOHLE,
BERNHARDT HUPENHÄUSSER.