

No. 609,859.

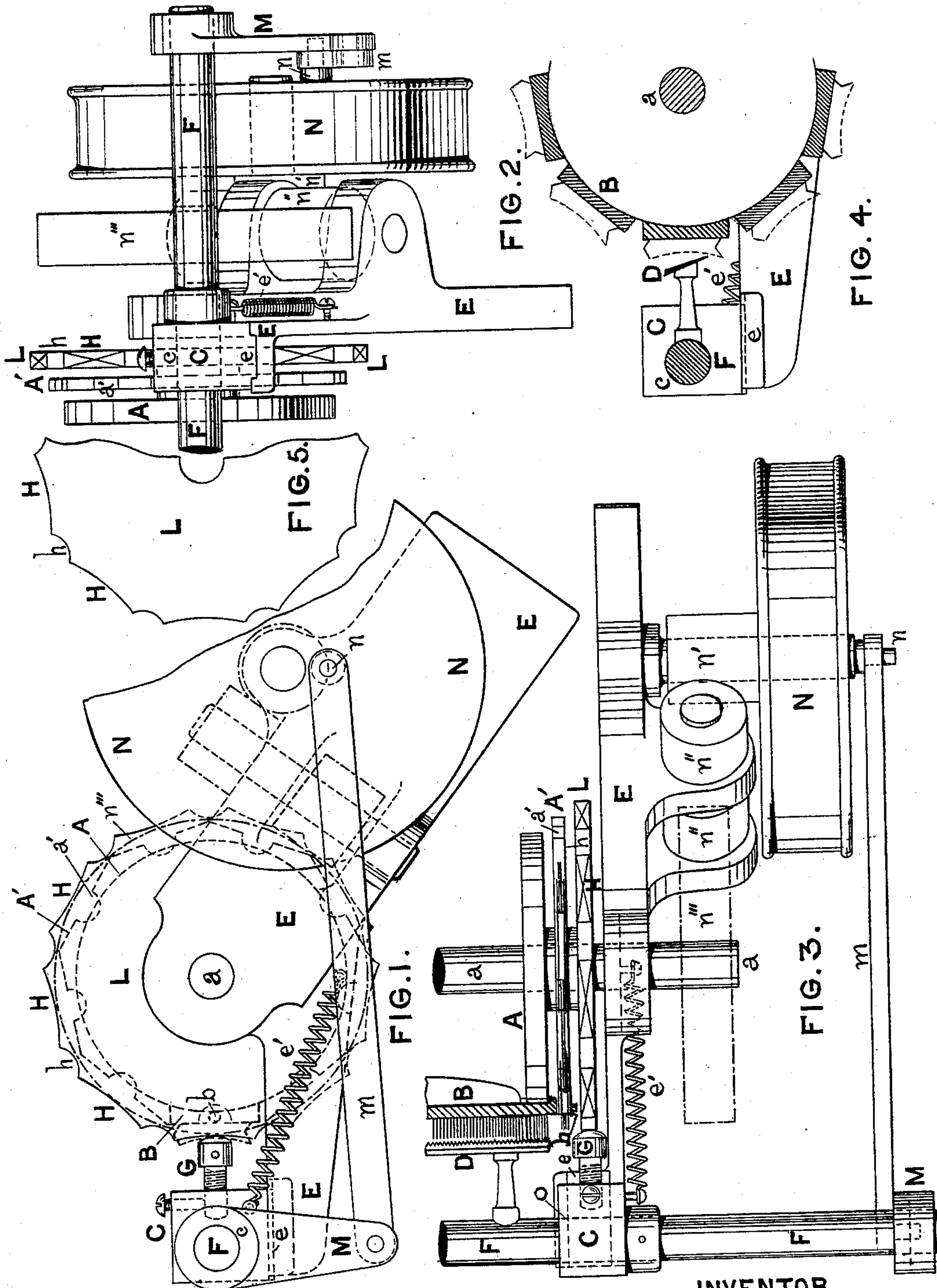
Patented Aug. 30, 1898.

J. WILLIAMS.

APPARATUS FOR STRIPPING FLATS OF CARDING ENGINES.

(Application filed Dec. 10, 1897.)

(No Model.)



WITNESSES.

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# UNITED STATES PATENT OFFICE.

JAMES WILLIAMS, OF SALFORD, ENGLAND.

## APPARATUS FOR STRIPPING FLATS OF CARDING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 609,859, dated August 30, 1898.

Application filed December 10, 1897. Serial No. 661,443. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES WILLIAMS, machinist, a subject of the Queen of Great Britain, residing at Springfield Works, Springfield Lane, Salford, in the county of Lancaster, England, have invented certain new and useful Improvements in Apparatus for Stripping the Flats of Carding-Engines, of which the following is a specification.

10 This invention relates to improvements in apparatus for stripping the waste from the revolving flats of carding-engines.

It consists, essentially, in mounting the oscillating bar of the stripping-comb in brackets capable of moving to and from the flats and resting upon a fixed arm or bracket in conjunction with a revolving cam or other device provided with surfaces parallel with the face of the flat wires when the flats are in position to be stripped.

20 It will be fully described with reference to the accompanying drawings, in which sufficient of a carding-engine is shown to illustrate the invention.

25 Figure 1 is a side elevation; Fig. 2, a front elevation; Fig. 3, a plan; Fig. 4, a sectional detail of stripping-comb and flats; Fig. 5, a side elevation of the cam plate or disk L detached.

30 The disk or pulley A over which the flats revolve is mounted upon the shaft *a* and rotated in the usual manner. The disk may be of any ordinary construction or it may be a plain disk with a second disk A' indented at *a'* to engage with the pivots *b* on the ends of the flats B and cause the flats to travel.

35 The comb-bar F of the stripping-comb D is mounted at either end in bearings *c* in brackets C, mounted on slides *e* on fixed or stationary arms E. The brackets C are capable of moving or sliding to and fro on the slide *e* of the arm E and are drawn toward the flats by the spiral spring *e'* or other suitable spring or weight or the arm E may be inclined and the bracket C move toward the flats of their own gravity.

40 On either end of the shaft *a* is placed a cam or disk L, with a number of surfaces H, shaped to correspond to the face of the wires of the flat, either flat or curved, as desired; and in addition to the surfaces H, I prefer-

ably form a number of indents *h* to correspond with the spaces between the flats.

To each of the brackets C in which the oscillating comb-bar F is journaled is affixed 55 an adjustable device G, such as a screw or bracket, which bears against the surfaces H and indents *h* around the periphery of the cam or disk L.

As the flats B travel along and each successively comes into position to be stripped, the cam L rotates, and the surfaces H and indents *h*, against which the adjusting screws or devices G bear, cause the brackets C and the stripping-comb D to approach to and re- 65 ceede from the surface of the flats, so that in its stroke the comb will always approach to within the same distance of the wire. The indents *h* permit the comb to enter between the flats to strip the edges thereof. 70

The desired oscillating movement is imparted to the comb-bar F and comb D by a crank M, affixed to one end of the bar, which is connected to a rotating crank or crank-pin *n* on a wheel or disk N by a connecting rod or 75 link *m*. The disk or pulley N is rotated by a strap, and the shaft *a* is connected with it and rotated by it by the worm and worm-wheels *n'*, *n''*, and *n'''*.

What I claim as my invention, and desire 80 to protect by Letters Patent, is—

1. Apparatus for stripping the flats of revolving carding-engines, comprising a comb and oscillating comb-bar, sliding brackets in which the comb-bar is pivoted and a rotating 85 disk rotating about the same center as the flats with surfaces around its periphery which form a guide for a projection from the sliding bracket and a projection on the said bracket engaging the surfaces of the disk. 90

2. In apparatus for stripping the flats of revolving carding-engines the combination with the comb and comb-bar and sliding brackets in which the comb-bar is pivoted capable of being moved to and from the flats of surfaces 95 parallel to the face of the flats to be stripped, substantially as and for the purpose described.

3. In apparatus for stripping the revolving flats of carding-engines, the combination with 100 the oscillating comb and comb-bar and sliding brackets provided with projections to en-

gage the cam of a cam for guiding the stripping edge of the comb, formed with surfaces parallel with the wire face of the flat when in position to be stripped, and with indents  
5 to permit the edge of the comb entering between the flats to strip the edges thereof, substantially as described.

4. In apparatus for stripping the revolving flats of carding-engines, the combination with  
10 the oscillating stripping-comb D and comb-bar F, of sliding brackets C capable of moving to and from the flats in which the comb-

bar is pivoted at *c*, the fixed arm E upon which the bracket slides, the spring *e'* which draws the bracket toward the flats, and the cam L  
15 to adjust the position of the edge of the stripping-comb relative to the flats.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES WILLIAMS.

Witnesses:

I. OWDEN O'BRIEN,  
R. OVENDALE.