

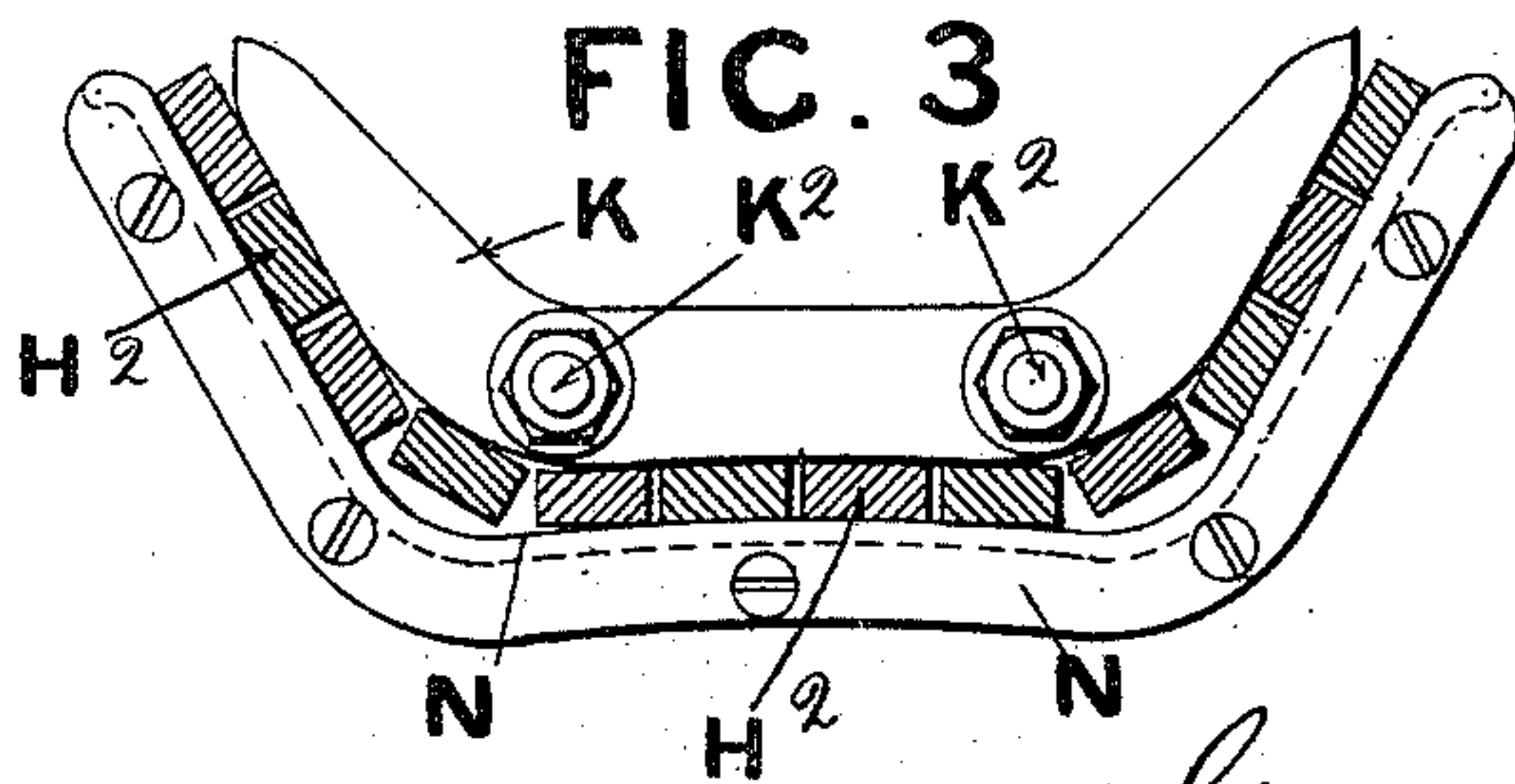
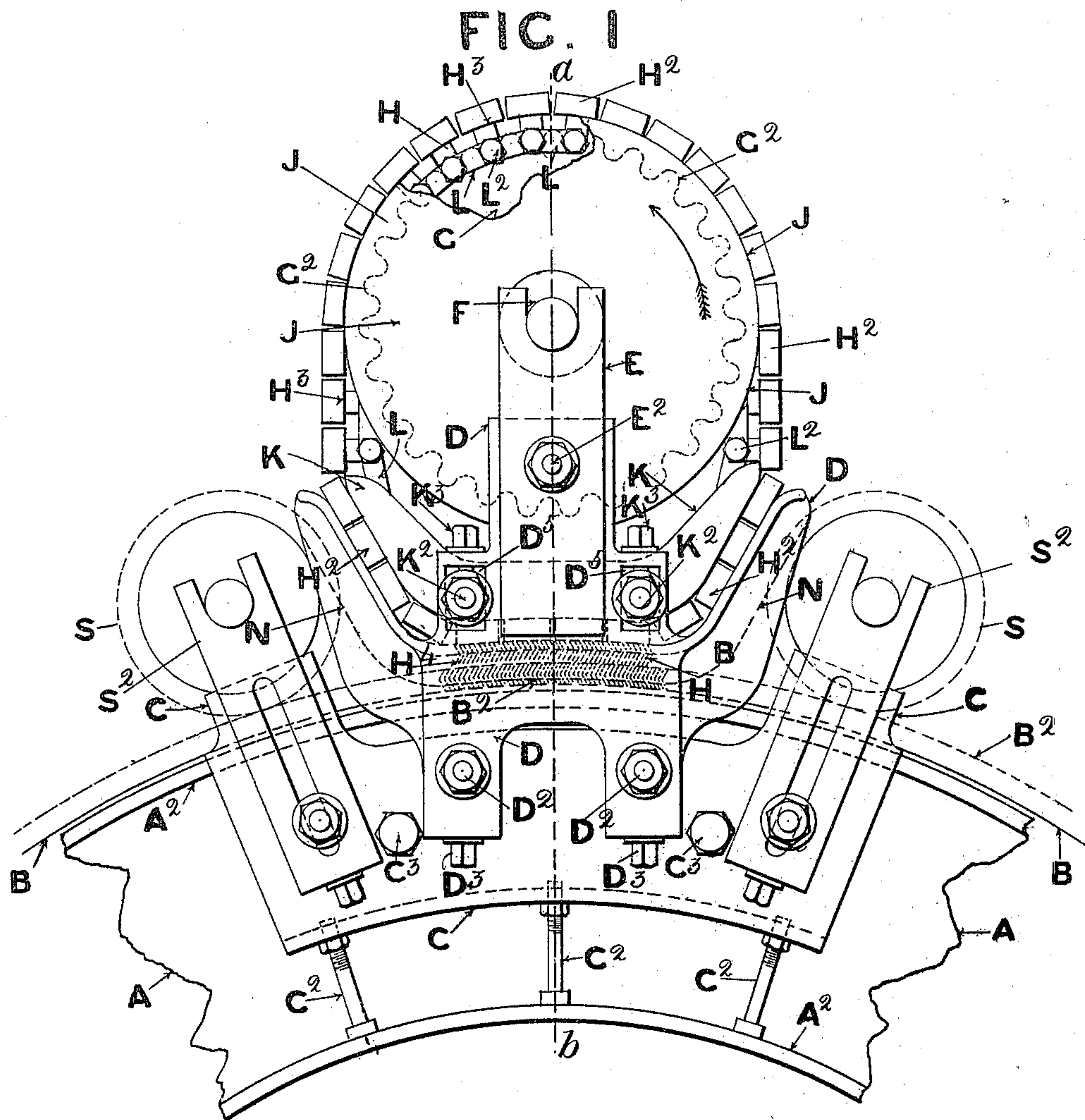
(No Model.)

2 Sheets—Sheet 1.

G. MARTIN.
CARDING ENGINE.

No. 600,882.

Patented Mar. 22, 1898.



Witnesses:
L. C. Holls
Ed. Kingsbury.

Inventor:
George Martin,
By Wm. E. Boulter,
Attorney

(No Model.)

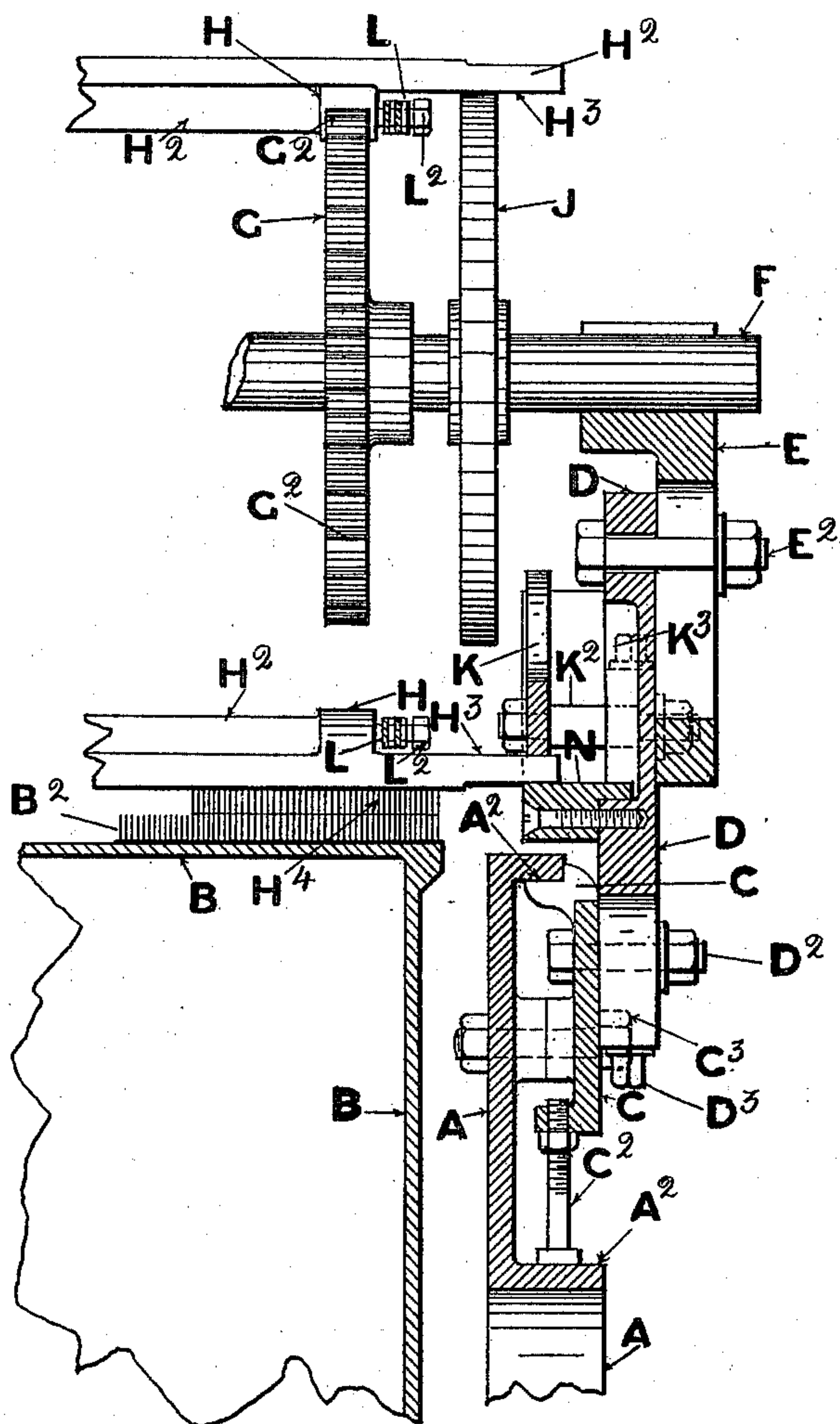
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FIG. 2



Witnesses:
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J. D. Kingsberg

Inventor:
George Martin,
By Wm E. Boulter,
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UNITED STATES PATENT OFFICE.

GEORGE MARTIN, OF SOUTHPORT, ENGLAND.

CARDING-ENGINE.

SPECIFICATION forming part of Letters Patent No. 600,882, dated March 22, 1898.

Application filed February 24, 1896. Serial No. 580,438. (No model.) Patented in England May 27, 1895, No. 10,374, and in France April 7, 1896, No. 242,731.

To all whom it may concern:

Be it known that I, GEORGE MARTIN, a subject of the Queen of Great Britain, residing at Southport, England, have invented certain

5 Improvements in Scribbling or Carding Machines, (patented in England May 27, 1895, No. 10,374, and in France April 7, 1896, No. 242,731,) of which the following is a specification.

10 This invention relates to improvements in scribbling or carding machines particularly applicable for carding wool and similar fibers; and its object is to more effectually open out and straighten the fibers.

15 To fully describe my invention, reference is to be had to the accompanying sheet of drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in each of the figures.

20 Figure 1 represents such parts of a carding-machine as are necessary to illustrate the application of my improvements. Fig. 2 represents a section of the same on the broken line *a b* of the former figure. In this figure the

25 full width of the machine is not shown, as one side is practically the same as the other. Fig. 3 represents a view of a detail hereinafter referred to.

30 A portion of the side frame of the carding-machine is represented by the letter A and is the crown of what is commonly called the "bend" of the frame, and B represents a portion of one of the "swifts" or cylinders. A plate C is fitted to the bend A on each side of the machine. In the drawings it is shown

35 fixed between the webs $A^2 A^2$ of A by the set-screws C^2 , and it is also secured by the bolts $C^3 C^3$. An adjustable bracket D is secured to each of the plates C by the bolts $D^2 D^2$, and adjusting-screws $D^3 D^3$ are fitted in the brackets to engage the bolts D^2 to facilitate adjustment. A bearing-piece E is secured on each side by a bolt E^2 to the bracket D, and this bearing-piece is made vertically

45 adjustable. Each bearing-piece is provided with a U-shaped bearing at the top, in which the shaft F, extending from one side of the machine to the other, is mounted. This shaft is driven in any convenient manner, but preferably by a belt or chain. A star-wheel G, of the

usual form to receive the projections H on the ends of the flats H^2 , is fixed in position close to each end of the shaft, and a disk J is also

secured on the shaft adjacent to each star-wheel. These disks are provided for the backs H^3 of the ends of the flats to bear upon and so relieve the pressure and friction on the teeth G^2 of the star-wheels. A curved guide-piece K is fixed by the adjustable studs $K^2 K^2$ inside each of the brackets D. Screws $K^3 K^3$ are fitted into the slots $D^5 D^5$ in D to facilitate adjusting the studs K^2 . The flats are connected together in the usual way by a chain L, connected by the screws L^2 to the end faces of the projections H.

The shaft F is driven in the direction of the arrow, Fig. 1, and the flats pass off the disk J under the guide-piece K, which are so formed and adjusted that the card-teeth H^4 on the flats gradually approach the card-teeth B^2 of the cylinder B. Consequently any sudden action on the fibers is reduced to a minimum.

To insure a smooth and uniform action, it is of the greatest importance that the backs of the flats should be held firmly and squarely against the guide-pieces K while they are acting upon the fibers. Therefore, besides keeping the chains at a suitable tension, the under guides N are provided on the inner face of the casting D. The upper or guide faces of the guides N are parallel to the guides K and are exactly the thickness of the ends of the flats away from the acting faces of the guides K. Consequently the flats are held with the requisite degree of firmness and truth while they are acting on the fibers. Fig. 3 represents a separate side view of one pair of guides K and N with the ends of the flats shown between them.

The castings D and the parts connected to them may be bodily adjusted to regulate the position of the flats in action on the fibers in relation to the swift cylinder B. Two or more of these sets of flats may be employed in connection with one swift or cylinder, and the card-filleting with which the flats of the different sets are covered may vary in "count"—that is to say, in the number and strength of the "dents" or wire points.

A "stripper" S is shown in Fig. 1 on each side of the flats mounted in bearing-pieces S^2 , secured to the bracket D. It is not necessary to use the two strippers; but one may be used in either position. The bearing-pieces S^2 also serve to carry a grinding-roller.

Having now particularly described and as-

certained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a scribbling or carding machine, the
5 combination with the frame or "bend" and a card-cylinder, of a plate secured to the frame on each side thereof, a bracket adjustably secured to each plate, a curved guide-piece K secured to the inner side of each of the said
10 brackets, the guide-piece N secured to the inner side of each bracket below the piece K, the upper or guide face of the piece N being parallel to the acting face of the piece K lying above, the revolving flats adapted to engage at their ends between the guide-pieces
15 K, N, the said brackets and the guide-pieces K being adapted to be adjusted vertically independently of each other, and means for supporting and moving the flats.
- 20 2. In a scribbling or carding machine, the combination with the frame or "bend," and a card-cylinder, of a plate secured to the frame

on each side thereof, a bracket adjustably secured to each plate, a curved guide-piece K arranged upon the inner side of each bracket, 25 said bracket being provided with vertical slots, studs carried by the guide-piece and projecting through the slots, and adjusting-screws projecting into the slots and adapted to adjust the studs, the guide-piece N secured 30 to the inner side of each bracket below the piece K, the upper guide-face of piece N being parallel to the acting face of the piece K, the revolving flats adapted to engage at their ends between the guide-pieces K N and means 35 for supporting and moving the flats, as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of the two subscribing witnesses.

GEORGE MARTIN.

Witnesses:

DAVID NOWELL,
SAMUEL A. DRACUP.