(No Model.)

A. S. HOOD.

BRAIDING MACHINE.

No. 387,075. Patented July 31, 1888.

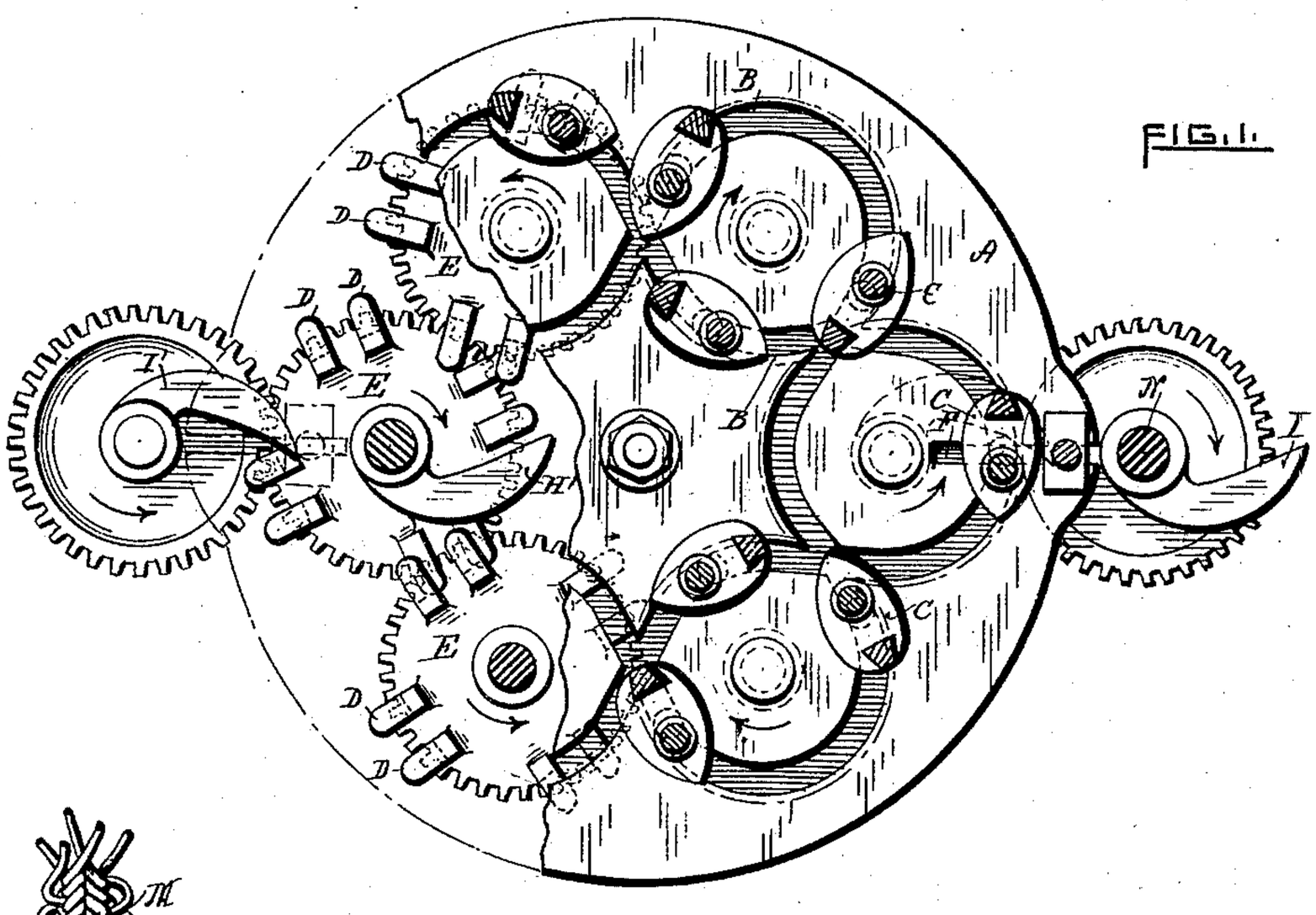

FIG. 1.

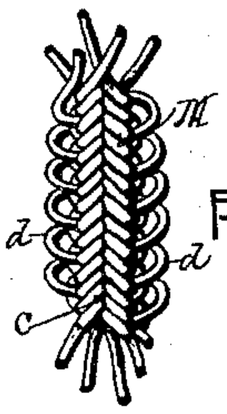

FIG. 3.

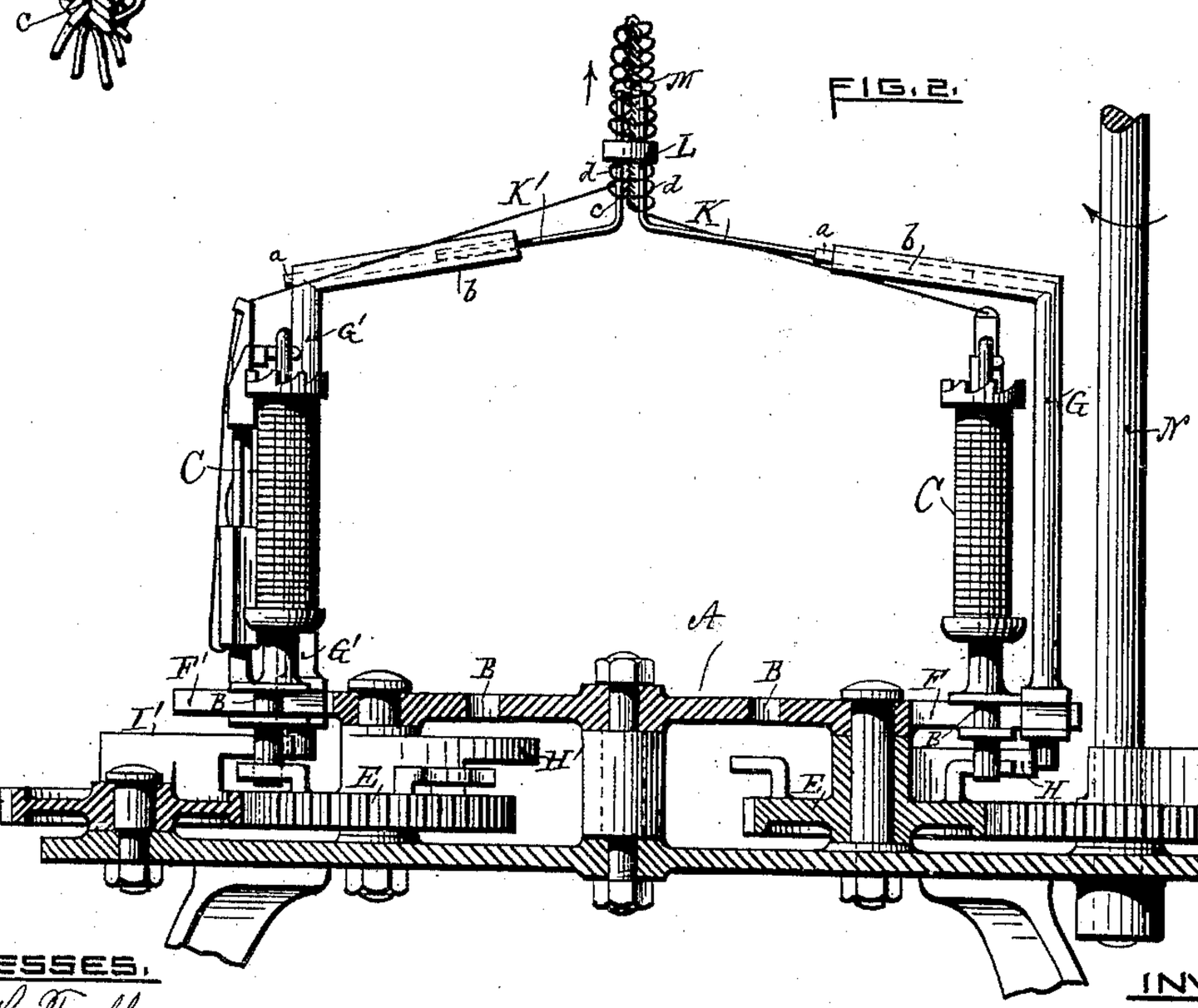

FIG. 2.

WITNESSES,

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UNITED STATES PATENT OFFICE.

ARNOLD S. HOOD, OF PROVIDENCE, RHODE ISLAND.

BRAIDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 387,075, dated July 31, 1888.

Application filed December 27, 1887. Serial No. 259,174. (No model.)

To all whom it may concern:

Be it known that I, ARNOLD S. HOOD, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Braiding-Machines, of which the following is a specification.

My invention consists in the improved construction of the loop-forming bars of the braiding-machine, as hereinafter fully set forth.

Figure 1 represents a horizontal section of the carriers and the upright driving-shaft and a partial plan view of the top plate, which is broken away at one side to show the relative positions of the operating-cams. Fig. 2 represents a central vertical section. Fig. 3 represents a piece of the braid, showing the looped edges.

In the accompanying drawings, A is the grooved upper plate of the machine; B B, the serpentine grooves of the plate; C C, the carriers, which are carried along the grooves B by means of the horns D of the gears E, as usual in braiding-machines. The grooved plate A is also provided with the opposite radial slots F F′, in which are placed the standards G G′, which slide loosely in the said slots, and are moved therein by means of the cams H H′ upon the opposite carrier-gears, E E, and the cams I I′ upon the opposite external gears, J J′, the cams H H′ being adapted to cause the outward movement and the cams I I′ the inward movement of the said standards.

The loop-forming bars K K′ are turned upward at their inner ends and carried through the fixed guide L, within which the braid M is formed. The bars K K′ are preferably enlarged to form a shank, *a*, which loosely fits within the cavity of the hollow projection *b* of the standards G G′, so that the standards can be moved in and out by the action of the cams, while the loop-forming bars K K′ are held from such movement by means of the braid or the braid-guide L. When the machine is set in operation, by turning the shaft N the carriers C C will be set in motion and the standards G G′ will be thrown, by means of the cams I I′, to the inner side of the moving carriers and by the cams H H′ to the outer side of the same, so that the thread from the carriers will alternately pass under and over the loop-forming bars, the thread which passes under the said bars forming itself into the central portion, *c*, of the braid M, and the threads which pass over the said bars serving to form the loops *d*. The upwardly-projecting ends *e* of the loop-forming bars are extended upward sufficiently to reach the firm and compact braid, so that when the braid is drawn from the ends of the said bars the loops *d* will be properly held by the braid.

The guide L for the braid can be omitted, the braid itself serving to hold the loop-forming bars, so as to prevent them from moving with the sliding standards G G′; but the said guide tends to hold the braid in a central position and is usually employed, and a single loop-forming bar is employed when the braid is required to have but one looped edge.

I claim as my invention—

In combination, the upper plate provided with the carrier-tracks and the slot crossing the carrier-track, means for moving the carriers continuously forward along the carrier-tracks, the sliding standard adapted to move within the slot to opposite sides of the carrier-track, the oppositely-acting cams for producing the said movement, and the loop-forming bar, which is loosely held upon the sliding standard, substantially as described.

ARNOLD S. HOOD.

Witnesses:

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