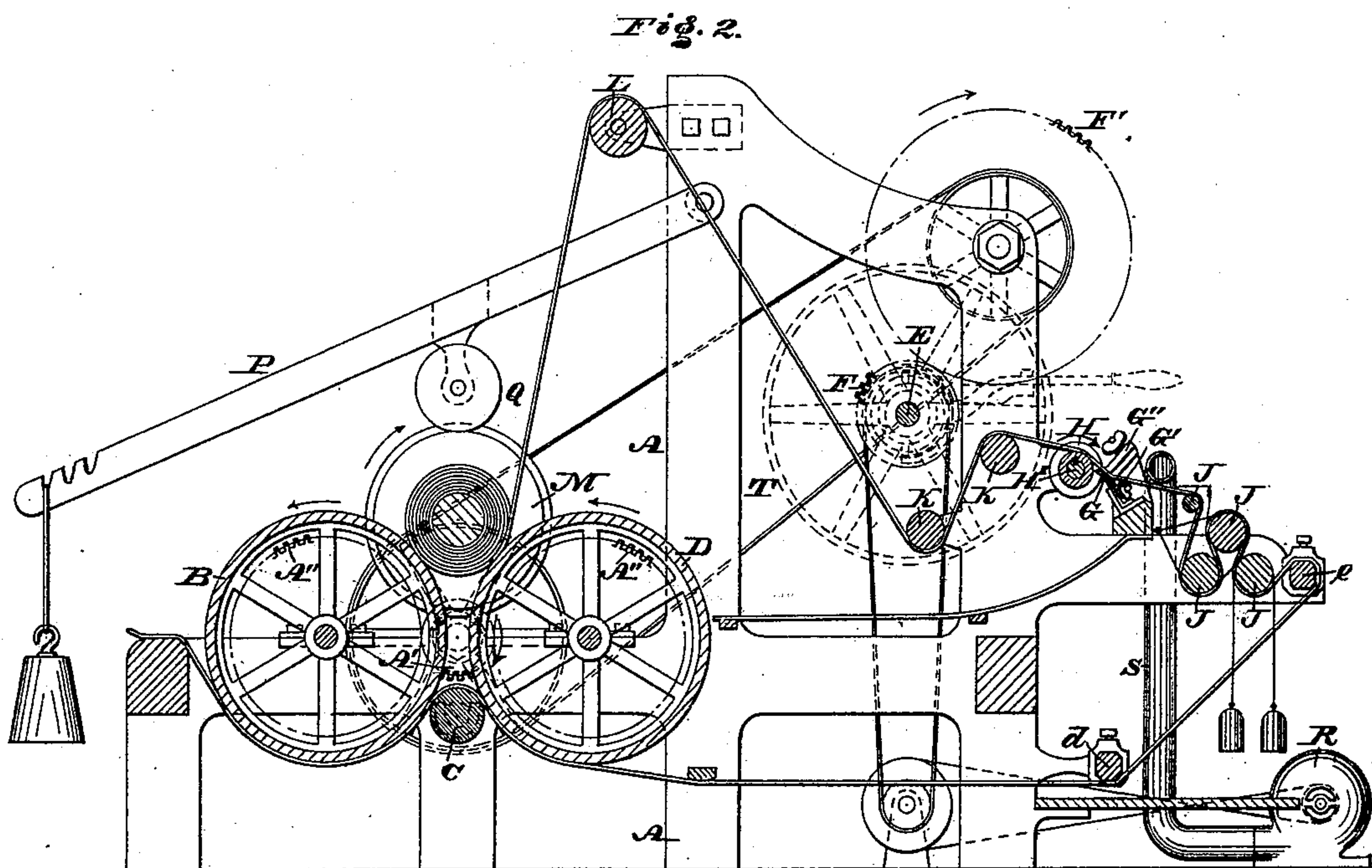
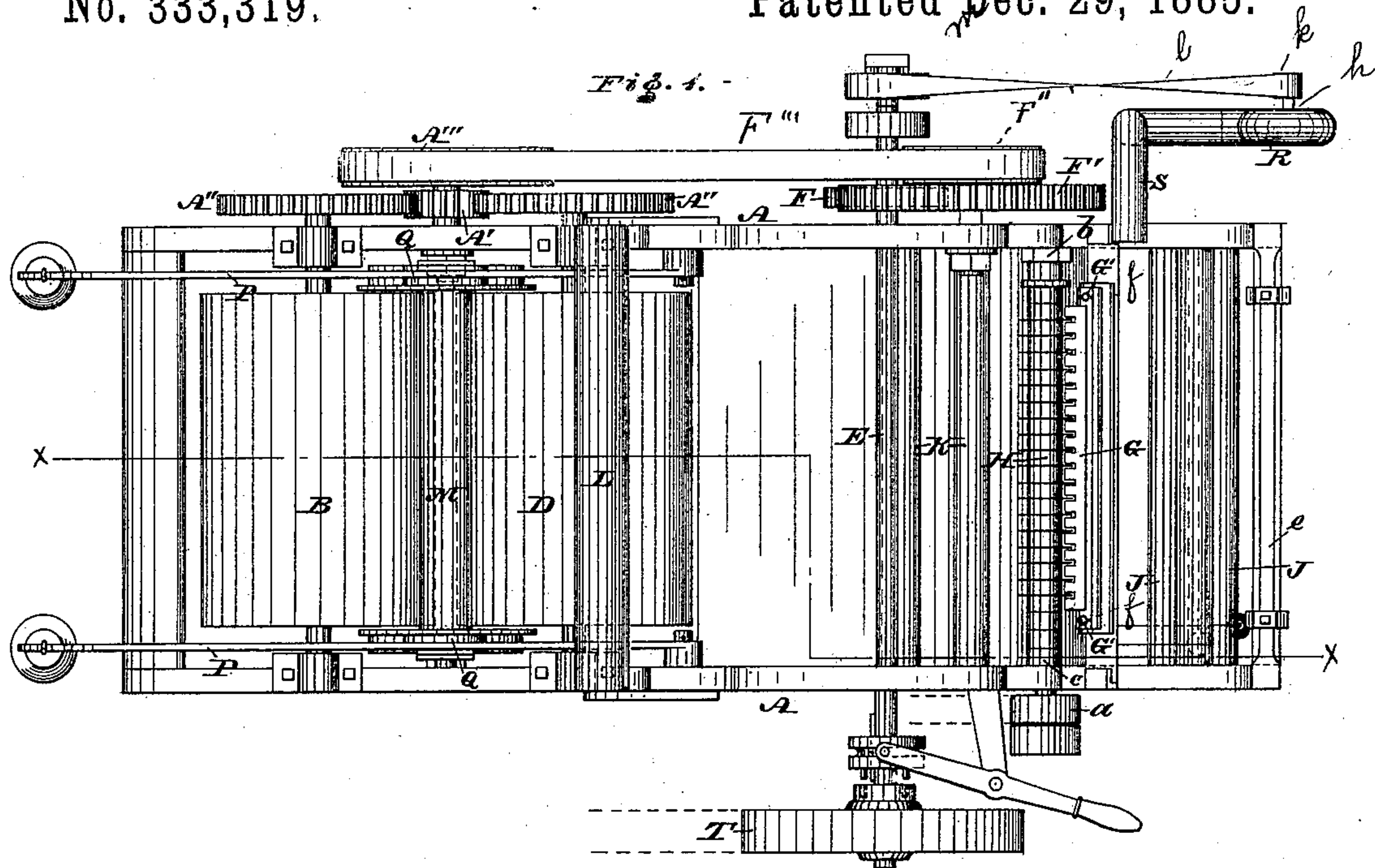


(No Model.)

W. McILWAIN.
CHENILLE CUTTING MACHINE.

No. 333,319.

Patented Dec. 29, 1885.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

WILLIAM McILWAIN, OF PHILADELPHIA, PENNSYLVANIA.

CHENILLE-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 333,319, dated December 29, 1885.

Application filed March 10, 1884. Serial No. 123,584. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McILWAIN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Chenille-Cutting Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top or plan view of a chenille-cutting machine embodying my invention. Fig. 2 is a vertical section in line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists of a machine for cutting chenille in an even, sharp, and rapid manner, as will be hereinafter fully set forth.

Referring to the drawings, A represents the frame of the machine, on which are mounted rollers B C D, which feed the chenille fabric into the machine, the rollers B D receiving motion in the same direction by means of a gear-wheel, A', which meshes with gear-wheels A'' A'' on the shafts of said rollers, and is operated by a band-wheel, A''', which is driven from the main shaft E through intermediate gear-wheels, F F', pulley F'', attached to the side of the wheel F', and a belt, F''', passing around the pulley F'' and band-wheel A'''.

G represents a transversely-extending comb, which is secured to the frame of the machine at the end thereof opposite to the roller B, and H represents a rotary cutter, whose shaft H', mounted on the frame A, receives motion from the pulley *a*, preferably independently of the shaft E. The cutter H is formed of a series of circular blades fitted between teeth of the comb G, and washers alternating with the blades, the washers serving to adjust the distance between the blades, and in connection with a nut, *b*, and collar *c* to clamp the blades in position. The comb is vertically adjustable by means of slots *f* and screws G' G', and has above it a pressure-bar, G'', properly secured to the frame A, or a projection thereof, the object whereof is to force the fabric against the comb and hold it firmly and flat during the cutting operation, the pressure-bar G'' being removed in Fig. 1. Mounted on the frame, or attachments thereof, on opposite sides of the cutter, are tension-regulating rollers J K, and secured to said frame,

at the rear end thereof, are transversely extending beams *d e*, around which the fabric to be cut is passed from the roller D to the rollers J.

L represents a roller at the top of the frame A, and M represents a roller on which the cut chenille is wound, said roller M resting on the rollers B D, and having its frictional contact with said roller adjusted by means of weighted levers P, which are pivoted to the frame A, and carry rollers Q, which are in contact with the peripheries of the heads of said roller M.

Supported on the base of the machine, or on the floor of the apartment, is a fan or blower, R, the pipe S whereof leads upwardly and transversely, and opens just in advance of the cutter H, so as to direct a current of air over the fabric and remove fine particles of the same and dust therefrom. The rotary shaft *h* of the blower R has a pulley, *k*, mounted thereon. This pulley is connected by a band, *l*, to a wheel or pulley, *m*, attached to the shaft E, thus receiving motion from the said shaft. Power is applied to the pulley T, and also the pulley *a*, and thus the machine is set in motion. The chenille fabric to be cut into strips is passed under the roller B, over the roller C, under the roller D, under the beam *d*, under and around the beam *e*, under and over the several rollers J, and then between the comb G and bearing-plate G'', where the cutter H acts on the fabric, thus severing it into chenille strips, the chenille strips then passing over and under the rollers K and over the roller L to the roller M, on which they are wound. The roller M is then removed, and these several lengths of chenille thereon are then rewound or rerolled on other rollers or spools, and subjected to other operations usual in such cases.

It will be seen that I produce a simple and easily-operated machine, the chenille strips being cut uniformly, regularly, and sharply.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An adjustable comb having slots and provided with clamping devices, and a rotary cutter whose blades alternate with the teeth of the comb, in combination with a pressure-bar

for said comb, and a series of tension-regulating rollers, substantially as and for the purpose set forth.

2. A comb, a rotary cutter, and tension-regulating devices, in combination with a fan or blower and an air-conveying pipe, the latter directing air adjacent to the comb and cutter, substantially as described.

3. An adjustable comb having slots and provided with clamping devices, a pressure-bar, and a rotary cutter, in combination with rollers supporting the chenille-fabric-receiving

roller, means, substantially as described, for operating said supporting-rollers, and a friction-roller supported by a weighted arm pivoted to the frame, the said friction-roller bearing on the receiving-roller, all of said parts being arranged, combined, and operating substantially as and for the purpose set forth.

WILLIAM McILWAIN.

Witnesses:

EBENEZER COBB,
S. P. COURTNEY.