

(No Model.)

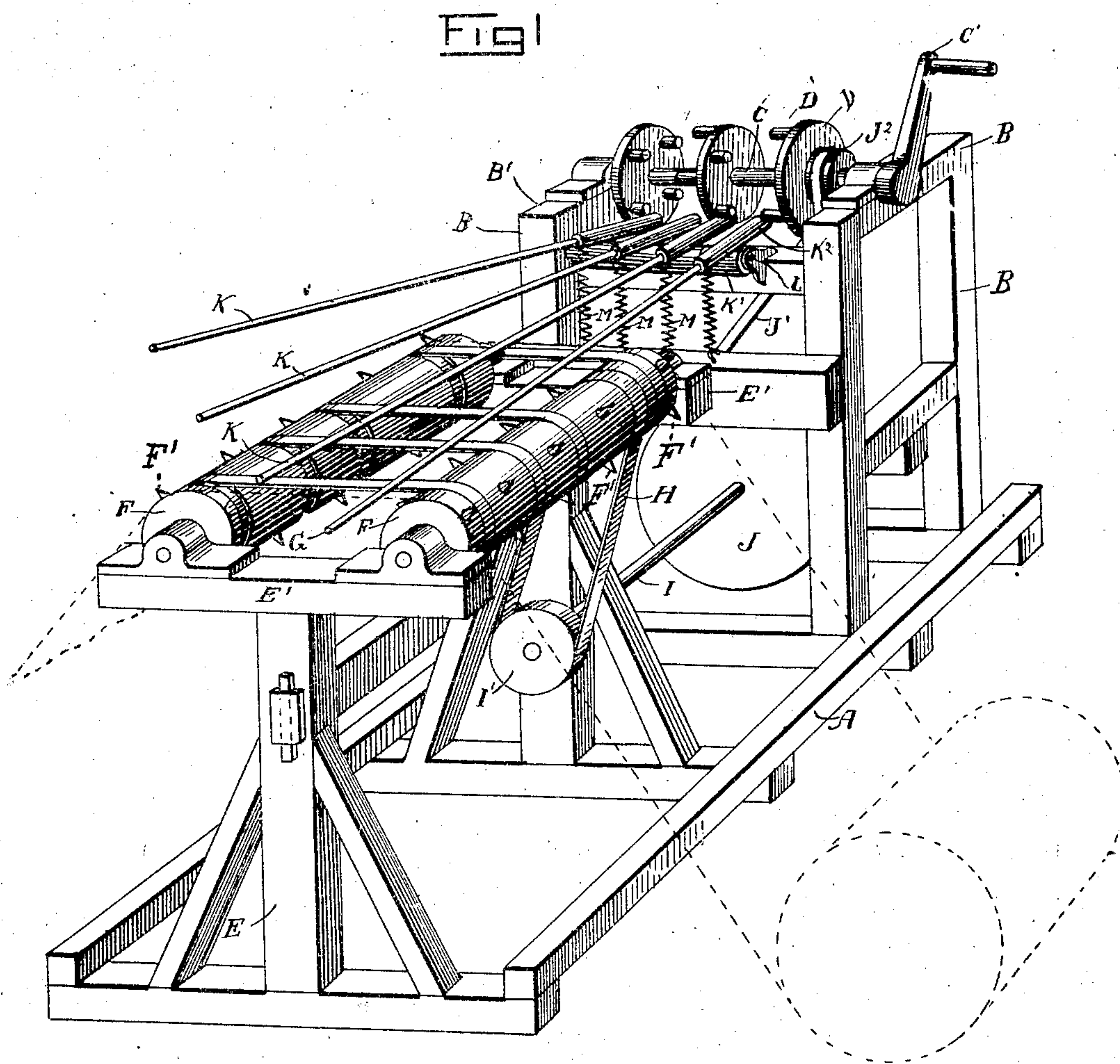
2 Sheets—Sheet 1.

Z. N. DE LEDOCHOWSKI.

CARPET CLEANER.

No. 328,199.

Patented Oct. 13, 1885.



WITNESSES

Thomas A. Clark

P. B. Turpin

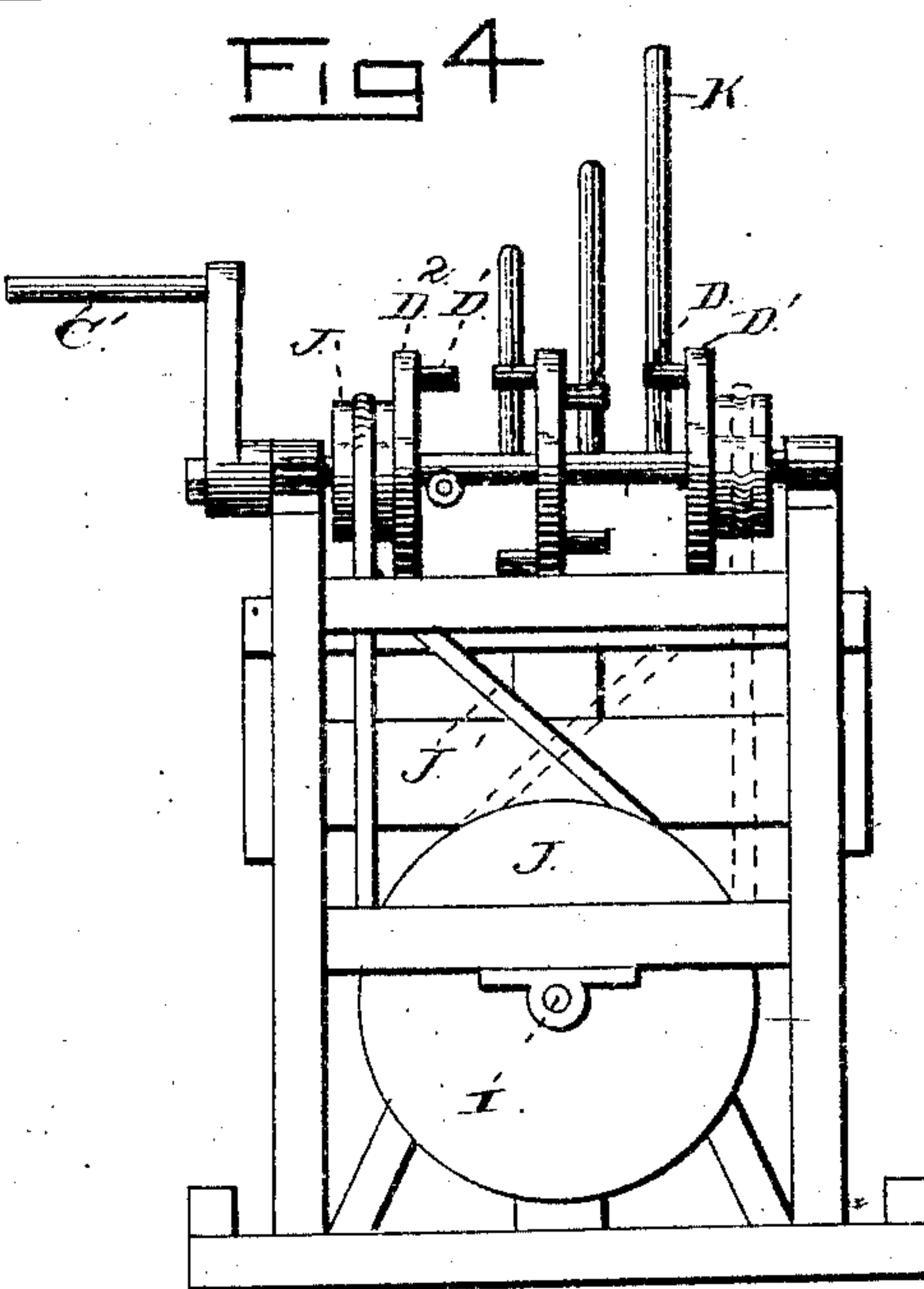
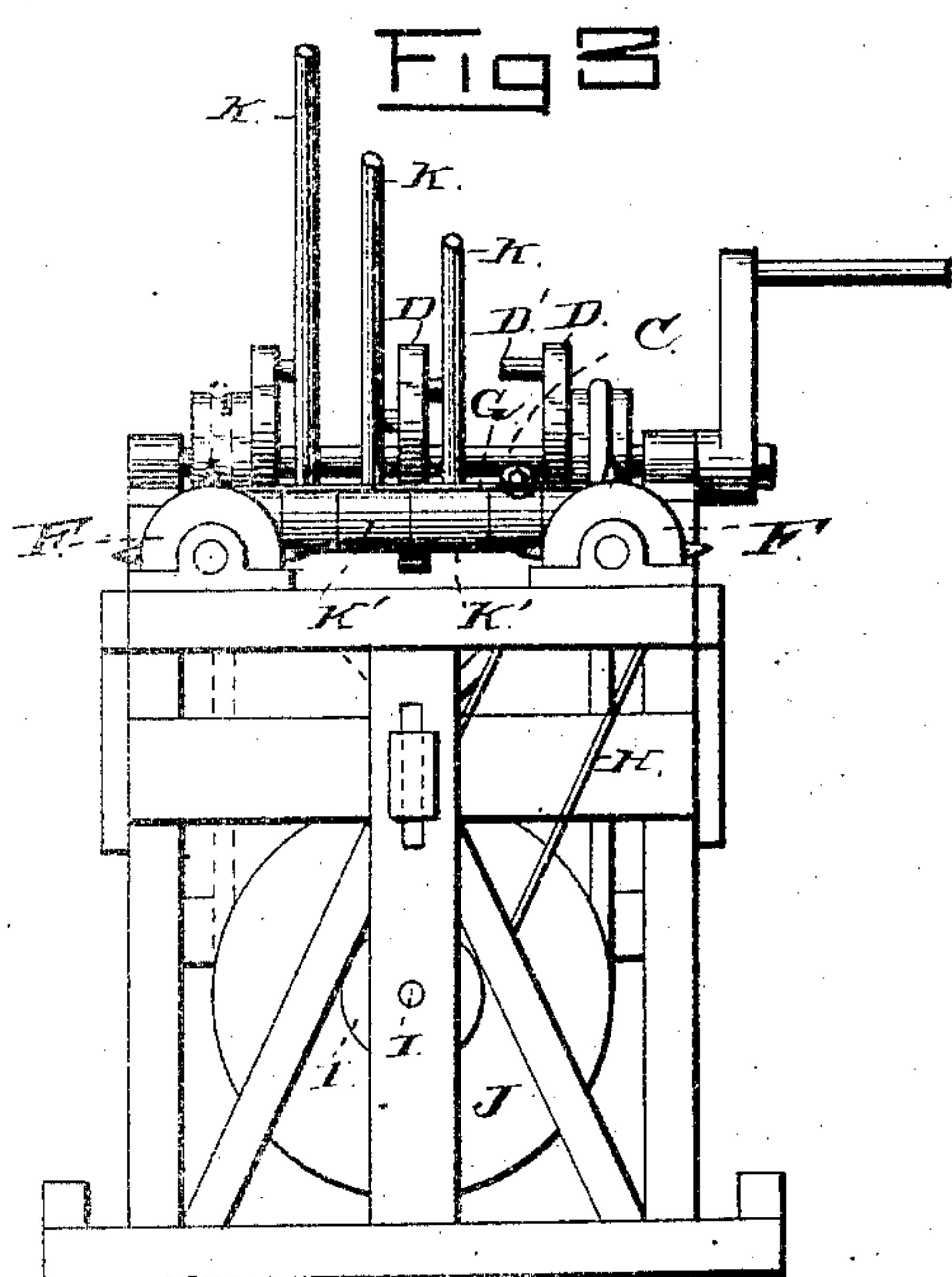
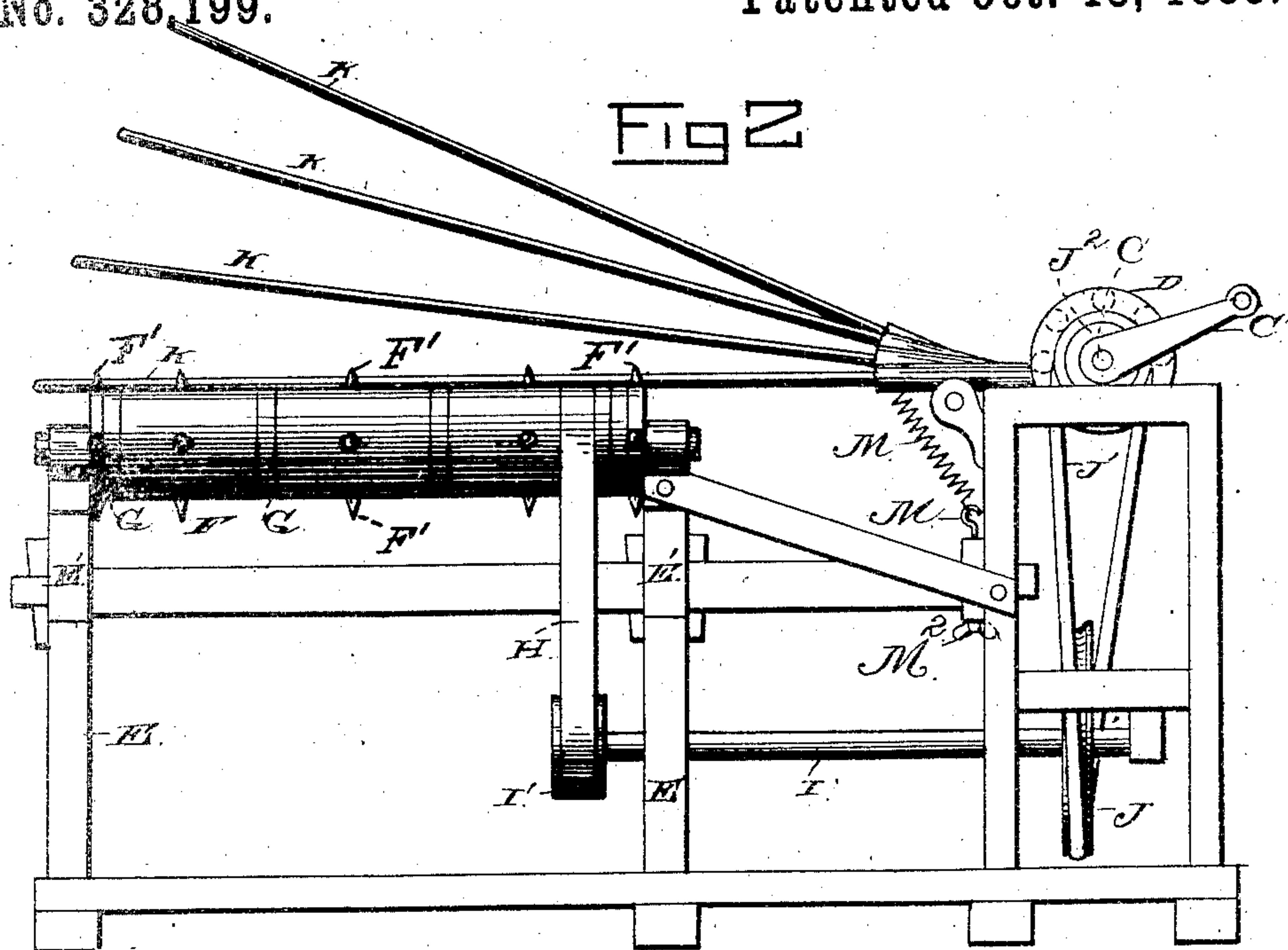
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2 Sheets—Sheet 2.

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WITNESSES

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# UNITED STATES PATENT OFFICE.

ZÉNONE N. DE LEDOCHOWSKI, OF LA SALLE, ILLINOIS, ASSIGNOR OF ONE-HALF TO EMILY L. ZIMMERMANN, OF SAME PLACE.

## CARPET-CLEANER.

SPECIFICATION forming part of Letters Patent No. 323,199, dated October 13, 1885.

Application filed October 25, 1884. Serial No. 146,470. (No model.)

*To all whom it may concern:*

Be it known that I, ZÉNONE N. DE LEDOCHOWSKI, a citizen of the United States, residing at La Salle, in the county of La Salle, and State of Illinois, have invented certain new and useful Improvements in Carpet-Cleaners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to carpet-beaters, and has for its object to provide a machine simple in construction, and which can be cheaply made, easily operated, and will efficiently serve its designed purpose.

The invention consists in certain novel features of the carpet-supporting devices, and in the beaters and means for operating them, constructed, combined, and arranged substantially as hereinafter more fully described and claimed.

In the drawings, Figure 1 is a perspective view; Fig. 2, a side elevation, and Fig. 3 a front, and Fig. 4 a back view, of a machine constructed according to my invention.

In carrying out my invention I preferably provide a base, A, of suitable frame-work, on which I mount the minor framing supporting the several operating parts of my machine.

On one end of the base A, I erect the frames B, in the upper cross-bars, B', of which I journal the shaft C, provided with a plurality of disks, D, having each one or more pins, D', projected parallel with their axis and near their outer edges. This shaft C is provided with a crank, C', by which it may be operated by hand. By supplying this shaft C with a suitable band-pulley or other expedient, it may be connected with and driven by a steam-engine or other suitable motor. On the end of base A, opposite frames B, I mount upright E, and a similar upright is arranged about midway the said frame. These uprights have top bars, E', in the opposite ends of which I journal the carpet-carriers F F, each having a number of radially-projected ends or spikes F', which

engage the carpet and cause the same to traverse the rollers F, when said rollers are revolved in the manner presently described. These rollers are connected by one or more belts, G, which serve to communicate the motion of one roller to the other, and also as a bed on which to beat the carpets. For the purposes of a beating-bed I prefer to employ a number of these belts, as is shown, and to arrange them in grooves in the rollers so they will properly retain their desired positions, though the grooves might be dispensed with when so desired, or an apron co-extensive in width with the length of the rollers F might be placed thereon, though I prefer to use the belts, because by such construction free egress is provided for the dust below the carpet. One of these rollers is geared by band H with a pulley, I', supported on a shaft, I, which shaft is also provided with a pulley, J, geared by pulley J' with a pulley, J'', mounted on the shaft C, so that the rollers F are revolved with the revolutions of the shaft C.

The beaters K are pivoted at K' on a common shaft, L, arranged about in line with the forward edges of the frames B, and the said beaters have extensions K'' in rear of their pivots, which project into position to be engaged and depressed by the pins D' of the disks D.

Suitable springs or retractors, M, are connected with the beaters K in front of their pivots in such manner as to forcibly depress the forward ends of the beaters when their rear ends have been depressed and released, as described.

The operation of my machine will, it is thought, be understood from the foregoing description. In use the carpet in lengths, or folded properly to a width about equal the length of the rollers F, is placed on said rollers in about the manner indicated in dotted lines, Fig. 1. It will be seen that the spikes F' will engage the carpet in such manner as to hold it taut between the rollers, and also cause it to move across the rollers as the latter are revolved.

In order to the proper feeding of the carpet across the rollers, it will be understood that only one of the rollers may be provided with



the spikes  $F'$ , so the roller so supplied is arranged in advance with reference to the line of motion of the carpet; but I prefer to provide both of said rollers with such spikes in order that the carpet may be kept properly taut, as before described.

When the carpet is properly placed, the shaft  $C$  is revolved. The pins  $D'$  or disks  $D$  engage at the rear end of the beaters, pressing same and elevating their forward ends. As the pins  $D'$  pass the beaters, the forward ends of the latter are forcibly depressed by the retractors onto the carpet, beating the dust out of same. I arrange the pins  $D'$  of the several disks so that the beaters  $K$  will be consecutively operated in order that the operating-strain on the shaft  $C$  may be distributed throughout its revolution, but particularly so that the carpet will be continually subjected to the action of one or the other of the beaters. I prefer to employ the pins  $D'$  on the disks, because by such arrangement I am able to operate the beaters a number of times by each revolution of the shaft. These pins form simply crank projections, and may, when desired, be substituted by arms or bars projected radially at proper intervals from the shaft  $C$ ; or the said shaft might be formed with a number of cranks, each arranged to operate one of the beaters; or various other expedients could be arranged to actuate the actions of the beater.

It will be understood that the shaft  $C$  might be dispensed with, and the beaters be projected sufficiently far in rear of their pivots to serve as handles and be depressed by the hands of the operator; but I prefer to use said shaft. I also prefer to connect the beater-operating mechanism with the carpet-support, so that the latter may be actuated contemporaneously with the operation of the beaters. This connection might be formed in the manner shown, or in other suitable manner, as will be obvious. It will be understood, however, that, where so desired, the carpet-supports may be employed without the radial spikes, and may not be automatically operated, in which case it will be necessary to move the carpet at proper intervals by hand. In such use the

rollers would facilitate the proper movement of the carpet, as will be understood.

I prefer in practice to connect the retractors  $M$  to the framing by means of screws  $M'$ , having thumb-screws  $M''$ , so the resistance of the springs may be varied according to the character of work or the condition of the carpets being cleaned.

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

1. In a carpet-beater, the carpet-support herein described, consisting of two parallel rollers journaled in suitable supports and coincidentally grooved and provided with radial spikes or pins between the grooves, and a series of belts connecting said rollers, and seated in the grooves, as and for the purposes specified.

2. In a carpet-beater, the combination of the rollers  $F$   $F'$ , provided with spikes  $F'$ , belts  $G$ , running around and joining said rollers, the beaters, means, substantially as described, for operating said beaters, and suitable gearing connecting one of said rollers  $F$  and the beater-operating devices, whereby the carpet may be fed forward as the beaters are operated, substantially as set forth.

3. The carpet-beater herein described, consisting of the rollers  $F$ , provided with spikes  $F'$  and circumferential grooves, the belts  $G$ , connecting said rollers and seated in the circumferential grooves thereof, the beaters  $K$ , pivoted at  $K'$  and provided with extensions in rear of their pivots, the retractors  $M$ , the shaft  $C$ , provided with a crank projection,  $D'$ , arranged to engage and depress the rear end of the beaters  $K$ , the pulley  $J$ , secured on shaft  $C$ , the shaft  $I$ , having pulleys  $I'$   $J$ , the band  $J'$ , connecting pulleys  $J$   $J'$ , and the band  $H$ , connecting pulley  $I'$  and one of the rollers  $F$ , substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses:

ZÉNONE N. DE LEDOCHOWSKI.

Witnesses:

ADAM E. SCHATZ,  
JOHN SILSBY.