

(No Model.)

J. T. MEATS.

STRIPPING MECHANISM FOR CARDING ENGINES.

No. 557,078.

Patented Mar. 24, 1896.

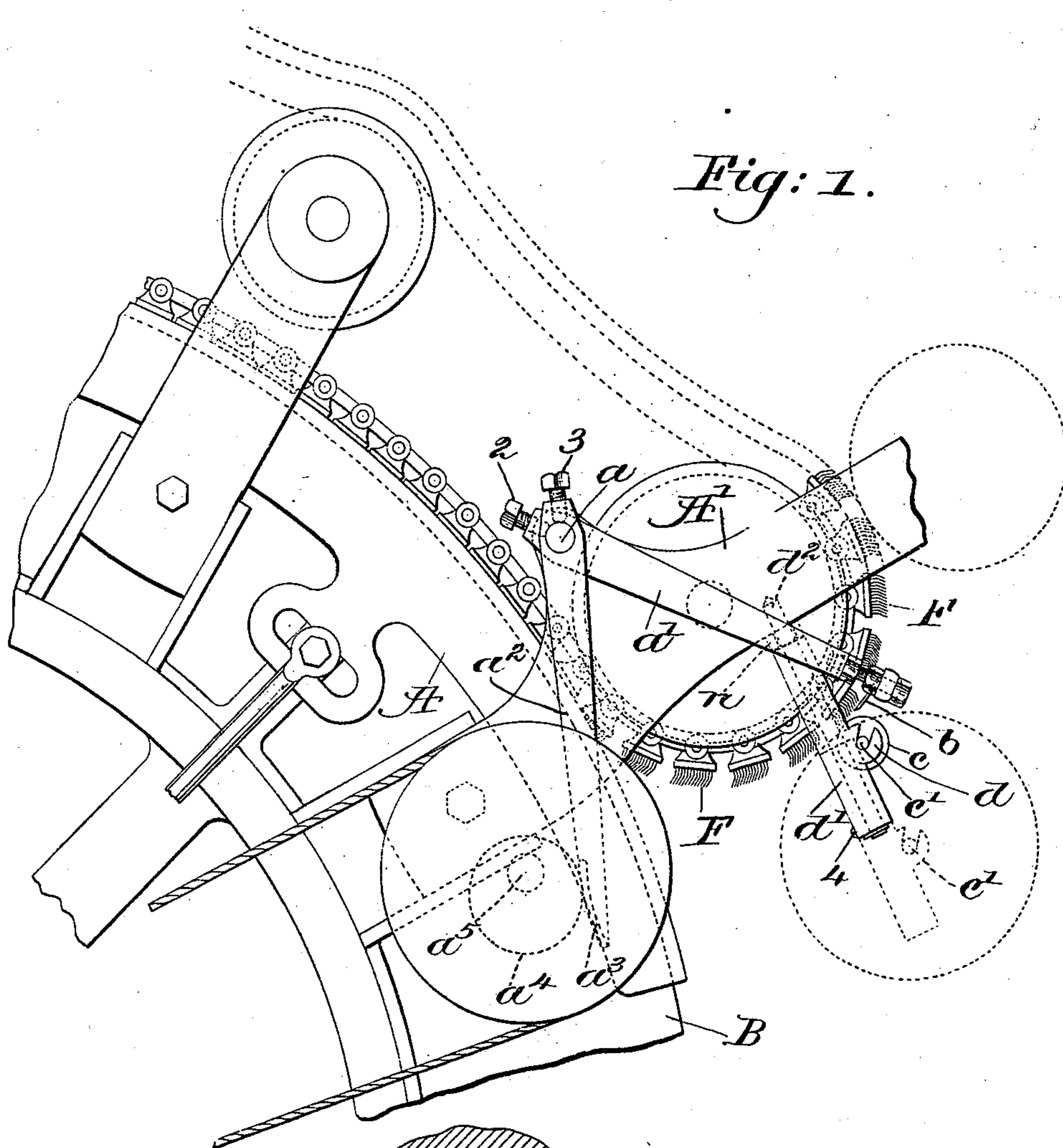


Fig: 1.

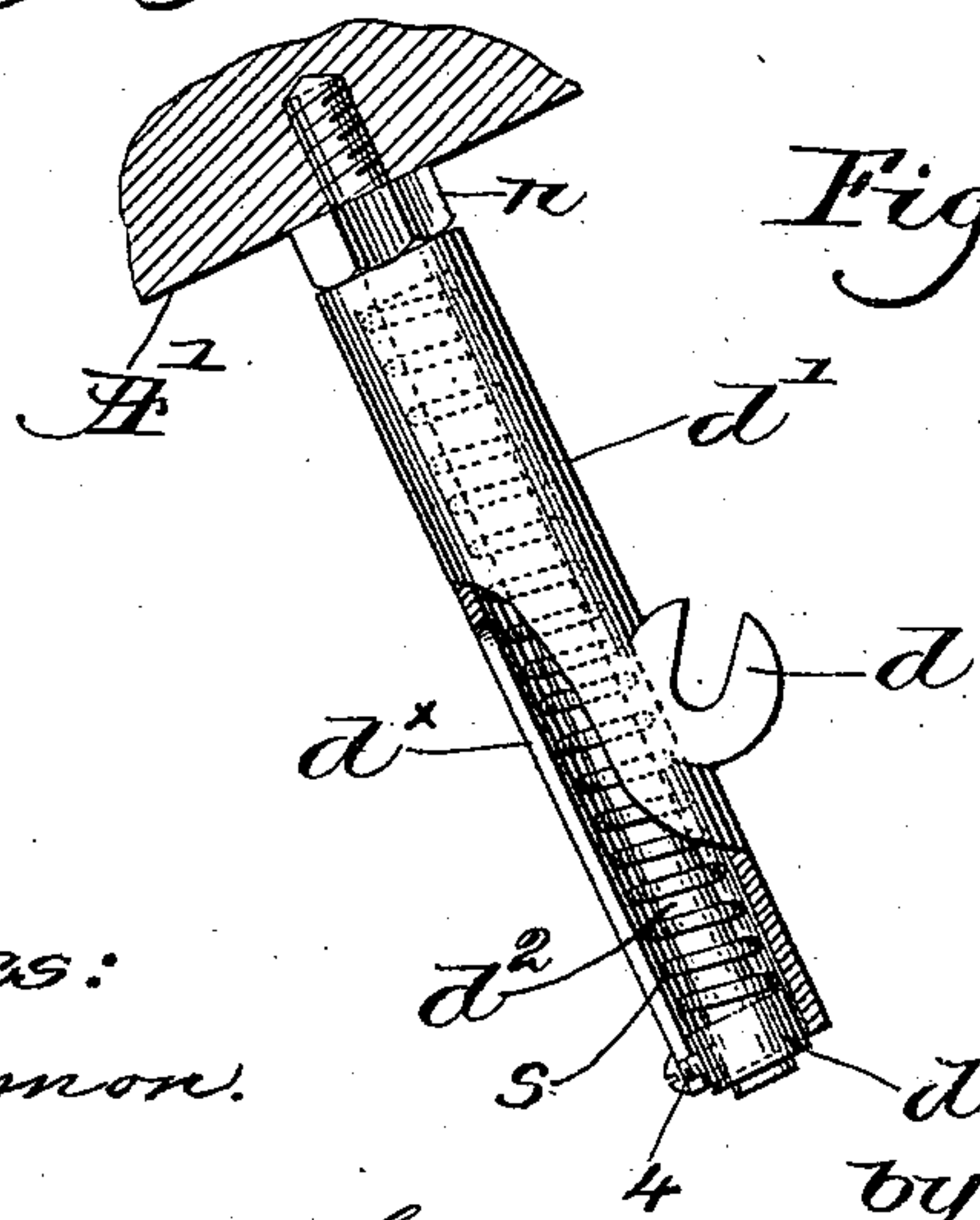


Fig: 2.

Witnesses:

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Inventor:

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by Crosby Gregory, Atty's.

UNITED STATES PATENT OFFICE.

JOHN T. MEATS, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO THE MASON MACHINE WORKS, OF SAME PLACE.

STRIPPING MECHANISM FOR CARDING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 557,078, dated March 24, 1896.

Application filed October 10, 1895. Serial No. 565,226. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. MEATS, of Taunton, county of Bristol, State of Massachusetts, have invented an Improvement in Stripping Mechanism for Carding-Engines, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object the production of an improved support for the stripping-roll of carding-engines, whereby the roll as it fills will always remain in contact with the top flats at the point of tangency of the comb, and consequently can run longer without being stripped. In other stripping mechanisms now known to me the roll as it fills moves in a curved path, and hence does not always contact with the top flats at the proper point, and the devices for holding the stripping-roll against the top flats exert a gradually-diminishing pressure as the roll fills. I have obviated these objectionable features in this invention by so constructing the roll-supporting mechanism that the roll is moved away from the point of tangency of the top flats and comb in a straight line, and as the roll fills its increasing weight gradually compresses a spring, so that the roll is maintained in contact with the top flats with uniform pressure. A much larger and more compact roll can be wound in consequence, effecting a saving of time and attention on the part of the attendant and reducing the cost of the mechanism itself.

Figure 1 in side elevation represents a sufficient portion of a carding-engine to be understood with my invention applied thereto; and Fig. 2 is an enlarged detail, partly broken out, of one of the roll-supports.

Referring to Fig. 1, the frame A, cylinder B, traveling top flats F, and their actuating and supporting mechanism may be and are all as usual and well known in carding-engines. The brackets A', one at each side of and supported by the frame, each have mounted therein a rock-shaft a , to which an arm a' is secured by a set-screw 2, said arms carrying at their outer ends the usual comb b , which is vibrated back and forth to remove the stripping from the top flats. An arm a^2 hav-

ing a shoe a^3 thereon is secured to the rock-shaft a by a set-screw 3, the shoe bearing against a cam a^4 on a suitably-rotated shaft a^5 to give the oscillating movement to the comb.

The journals c' of the stripping-roll c rest in slotted bearings d secured to or forming a part of a tubular casing d' , one of which is shown separately in Fig. 2, a rod d^2 , threaded at its upper end, being extended through each casing and having at its lower end a collar d^3 , easily movable in the casing.

The upper end of the casing is closed, with an opening for the rod d^2 , and a spring s is coiled around the latter between the upper end of the casing and the collar d^3 thereon, the said collar being adjustably held on the rod by a set-screw 4 extended through a longitudinal slot d^x in the casing.

The threaded upper ends of the rods d^2 are screwed into threaded holes in the under side of the brackets A', one at each side of the main frame, to support the stripping-roll c and hold it against the top flats at the point of tangency of the comb-path, as clearly shown in Fig. 1.

From the foregoing it will be seen that the springs s hold the stripping-roll in place with a yielding pressure, and as the strippings collect and are wound thereupon the weight of the roll is thereby increased. Such increasing weight of the roll gradually causes the casings d' to move down upon the rods d^2 , gradually compressing the springs, the resistance of the latter increasing with compression proportionally to the increasing weight until the further movement of the roll is prevented by engagement of the set-screws 4 with the upper ends of the slots d^x , such position being shown in dotted lines, Fig. 1. The roll is thus moved away from the top flats in a direct line, and the surface of the wound mass of strippings is kept with a uniform pressure against the top flats at the proper point.

A check-nut n is interposed between the bracket A' and the top of the casing, providing for adjustment of the supporting and guide rods d^2 longitudinally.

Preferably the stripping-roll supports are set at a slight angle to the radius of the circle, around which the top flats F move in being

stripped to counteract any tendency of the roll to flatten as it fills.

When a roll is filled it can be instantly removed, and the supports move back into correct position to receive an empty roll.

By adjusting the collars d^3 the strength of the springs s can be regulated according to circumstances.

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

1. In a stripping mechanism for carding-engines, a stripping-roll, movable supports therefor, fixed guides upon which said supports are longitudinally movable in a straight line toward and from the top flats, and sustaining-springs for and controlling the longitudinal movement of said supports, to retain the roll in yielding contact with the top flats, substantially as described.

2. In a stripping mechanism for carding-engines, a stripping-roll, tubular supports having bearings for the roll-journals, fixed guide-rods upon which said supports are longitudinally movable toward and from the top

flats, and coiled springs surrounding said rods within the supports, the gradually-increasing weight of the roll compressing the springs, whereby the roll is maintained with uniform pressure in contact with the top flats, substantially as described.

3. In a stripping mechanism for carding-engines, fixed guide-rods, an adjustable collar on the lower end of each rod, and a spiral spring on each rod sustained by the collar, combined with tubular casings surrounding the springs and longitudinally movable on the rods, provided with roll-bearings, and a stripper-roll supported thereby, the springs maintaining the roll in contact with the top flats with uniform pressure and being gradually compressed by the increasing weight of the roll, substantially as described.

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

JOHN T. MEATS.

Witnesses:

FREDERICK L. EMERY,
JOHN C. EDWARDS.