

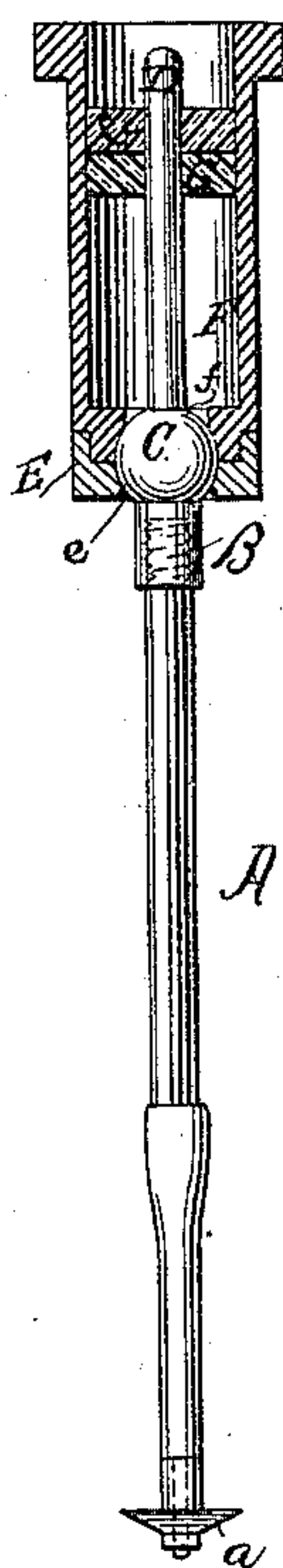
(No Model.)

W. A. TUCKER.

• CAPSULE CUTTER.

No. 299,182.

Patented May 27, 1884.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM A. TUCKER, OF NEW YORK, N. Y.

CAPSULE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 299,182, dated May 27, 1884.

Application filed November 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. TUCKER, of the city, county, and State of New York, have invented a new and useful Improvement in Cutter-Arms or Rods for Capsule-Cutting Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to that class of capsule-cutting machines in which the capsule formed on the end of a mold or stem is cut by a small rotary cutter secured to the end of an arm or rod, the cutting being accomplished by carrying the cutter around the capsule on the mold or stem, or by carrying the capsule and mold around the cutter. Such machines are well known and in common use in which the cutter-arms consist of elastic wires or rods made fast at one end in a plate or to a head or short shaft, the cutters being secured to the opposite free ends, the cutters being thus enabled to yield laterally in all directions with an elastic resistance, in order to insure the proper cutting-pressure of the edges of the cutters against the capsules and molds.

I do not deem it necessary to represent by drawings, or to more particularly describe, a machine in which my improved cutter-arms may be used. A representation and description of a cutter-arm and its connection with the machine will disclose and set forth my invention.

In the drawing, A represents a cutter-arm, to the lower or free end of which is attached, preferably, so as to rotate on its axis, a cutter, *a*.

B is a short hollow shaft, in which the upper end of the cutter-arm is set or fixed, preferably by a screw-thread, as shown. Upon this shaft is formed the ball or sphere C, and from this ball, and diametrically opposite to the said shaft, extends the pin or stem D.

E is a cylinder, open at its upper end, and

having an opening, *e*, at its lower end, to admit the pin D, and sufficiently large to permit the free lateral movement of the pin therein, and said opening is countersunk to fit the ball or sphere C throughout about half of its surface, as shown.

F is a cap adapted to be fitted upon the said lower end of the cylinder, and having a central opening, *f*, in which the shaft B is free to play laterally, and said opening *f* is countersunk reversely to that of the opening *e*, so that it incloses and fits upon the other half or part of the ball or sphere C, as shown.

G indicates one or more elastic disks or washers, preferably of rubber, having a central orifice adapted to fit upon the pin or stem D, and said disks are adapted in diameter to fit snugly within the cylinder E, being introduced through the open upper end thereof.

By means of the described devices the proper cutting-pressure of the edges of the cutter *a* against the capsules and molds is secured, the cutters being enabled to yield laterally in all directions with an elastic resistance—that is to say, the cutter-arm A, seated in the shaft B, is, by means of the ball or sphere C, seated as described, free to move or swing in all directions, a universal or ball-and-socket joint being furnished, while the movement is governed and an elastic resistance is secured by the pin D, working in the elastic disks G.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the stem A, carrying the cutter *a*, with the shaft B, ball C, pin D, cylinder E, having countersunk opening *e*, its cap F, having reversely-countersunk opening *f*, and the elastic washers G, constructed and arranged to operate as and for the purpose specified.

WM. A. TUCKER.

Witnesses:

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