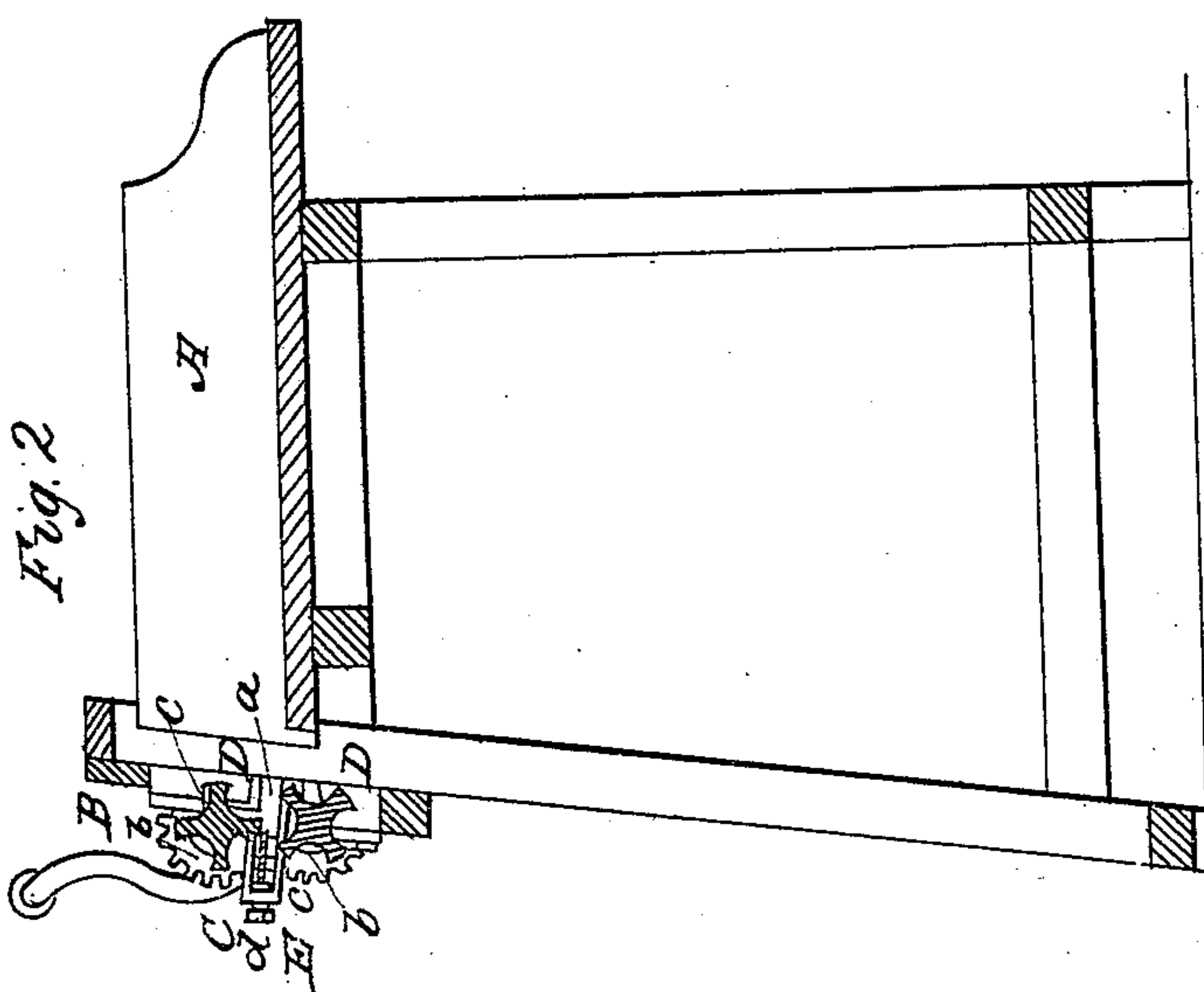
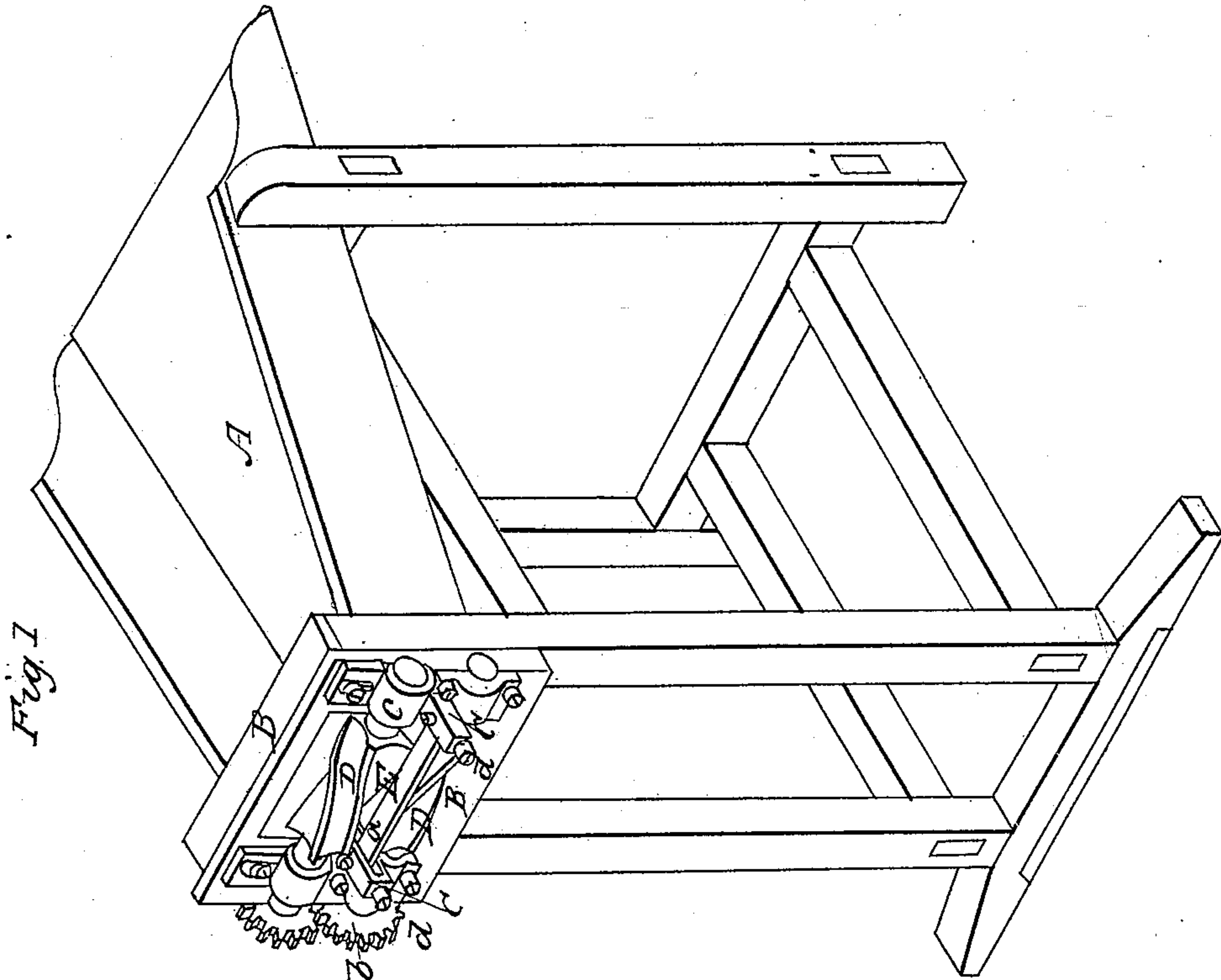


A. S. MACOMBER.

Straw Cutter.

No. 7,756.

Patented Nov. 5, 1850.



UNITED STATES PATENT OFFICE.

A. S. MACOMBER, OF BENNINGTON, VERMONT.

STRAW-CUTTER.

Specification forming part of Letters Patent No. 7,756, dated November 5, 1850; Reissued December 5, 1865, No. 2,119.

To all whom it may concern:

Be it known that I, A. S. MACOMBER, of Bennington, in the county of Bennington and State of Vermont, have invented a new and useful Improvement in Straw-Cutters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1, is an isometrical view; Fig. 2, is a longitudinal vertical section through the center.

The same letters of reference indicate corresponding parts in each of the several figures.

The nature of my invention consists in dispensing with the ordinary feeding rollers, and using rotary spiral cutters in combination with a stationary knife placed across the mouth of the straw cutter, one rotary cutter being placed above the edge of the knife and another below it, the edges of the rotary cutters come in contact with the edge of the stationary knife and produce a cutting effect nearly similar to that of a pair of shears, the rotary cutters feeding themselves and leading forward the straw.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

A, represents the box for containing the straw.

B, is the mouth which is made of cast iron or other suitable metal and secured by screw bolts to the front of the box.

C, C, are two boxes projecting forward from the front of the mouth; they may be either cast with it or may be secured to it in any other suitable manner; a slotted recess or mortise (*a*) is provided in the inner side of each box extending from the back nearly to the front.

D, D, are the rotary cutters consisting of cylinders having any number of spiral projections upon them; they are made of cast iron chilled upon the surface and their faces are ground to make the corners or edges sharp; the axles of the said rotary cutters are hung in bearings at equal distance above

and below the boxes C, C; their spiral projections are inclined in opposite directions and each projection on the one, is arranged half way between two projections on the other, so that though their axes are arranged parallel at such a distance apart that circles described around the edges of each set of cutters would meet, the edges never come in contact; they are geared together by toothed wheels (*b, b*) and rotate in opposite directions.

E, is a straight sharp edged knife the ends of which are placed in the mortises (*a, a*) in the boxes C, C, and are firmly held between set screws (*c*) (*c*) which pass through the top and bottom boxes; the knife is pushed forward by set screws (*d*) (*d*) passing through the ends of the boxes, the edge is set parallel with the axes of the cutters and nearly in a perpendicular line through their centers.

Operation: Rotary motion is given to one of the rotary cutters by a crank upon its axis or by other convenient means, the wheels (*b, b*) will transmit motion to the other cutter; the edges of the cutters in their revolution will draw the straw forward against the edge of the stationary knife, and as the edges of the rotary cutters come in contact with and pass the edge of the knife (being only in contact at one point at a time) they will commence cutting the straw at one end and will cut right across the mouth; as soon as the whole of one spiral edge has passed the knife one of the edges of the other cutter will commence operating; the cutting always commencing at the same side of the mouth and each cutter acting alternately with the other.

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

The application and use of rotary spiral cutters D, D, which are self-feeding, in combination with a stationary knife, or cutting edge, in the manner and for the purpose, substantially as described.

A. S. MACOMBER.

Witnesses:

ABNER BANKS MOORE,
LYMAN S. PUTCHIN.