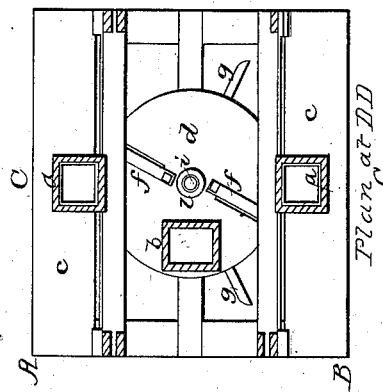
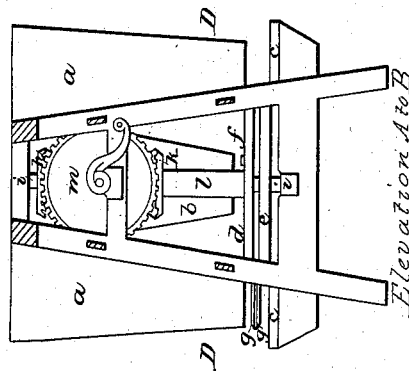
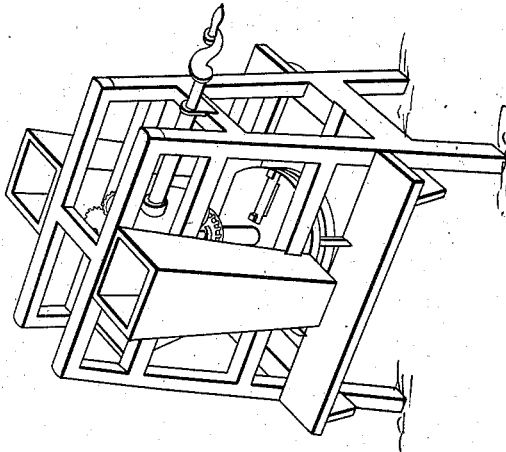
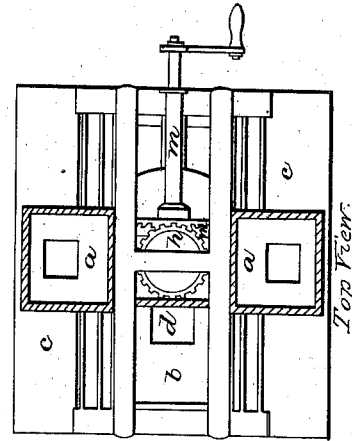
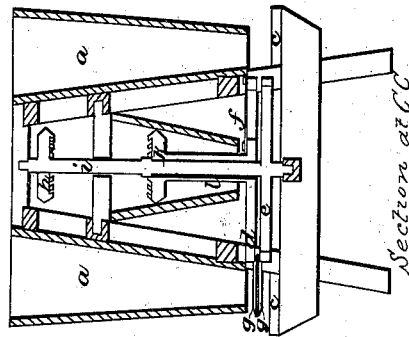


No. 3,303.

PATENTED OCT. 12, 1843.

H. H. EVARTS.
PLAN FOR STRAW AND ROOT CUTTERS.



Inventor;
Harry H. Evans

UNITED STATES PATENT OFFICE.

HARRY H. EVARTS, OF MOUNT MORRIS, NEW YORK.

STRAW-CUTTER.

Specification of Letters Patent No. 3,303, dated October 12, 1843.

To all whom it may concern:

Be it known that I, HARRY H. EVARTS, of the town of Mount Morris, in the county of Livingston and State of New York, have
5 invented a new and useful Machine for Cutting Straw and Roots; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had
10 to the annexed drawings, which make a part of this specification.

I erect a perpendicular revolving shaft *i* (see drawings) two feet five inches long upon and near the lower end of which I fix
15 or place firmly a balance wheel *c* one foot and nine inches in diameter with a rim and two arms. Immediately above this and upon the hollow shaft *l* I place another balance wheel *d* of the same diameter having
20 its upper surface *a* plane. The hollow shaft *l* is eleven inches perpendicular length has upon its upper end a bevel pinion *k* four inches in diameter and revolves around shaft *i*. Upon shaft *i* near its upper end I fasten
25 another pinion *h* like the first. Between these pinions I place a bevel wheel *m*, on and near the end of the horizontal shaft *m* upon the outer end of which is the hand crank. I then bolt a knife *g* upon each of
30 the contiguous surfaces of the balance extending out from the periphery of each seven inches in such manner that they will pass each other under the hoppers *a*, *a*, into the top of which the straw is inserted and

falls upon the tables *c*, *c*. Then if by means 35 of the hand crank the wheel *m* be made to revolve the pinions *h* and *k* will move in opposite directions and consequently the shafts *i* and *l*, the balance-wheel and knives will
40 move in corresponding contrary directions and the knives passing under the hoppers cut in the same manner as shears (see elevation and section of drawings) the cut straw being thrown off from the tables by the lower
45 knife the upper straw immediately falls on to the tables ready for the repassing of the knives. Through the upper balance wheel *d* which is plane on its upper surface I make two orifices $7\frac{1}{2}$ inches long by $2\frac{1}{2}$ inches
50 wide, over which I place two knives *f*, *f*, $\frac{3}{8}$ inch above the surface of the wheel. If roots be placed in the hopper *b* they will fall upon balance wheel *d* and when the knives *f*, *f*, pass they will cut off three eighths inch
55 in thickness from the roots and the pieces will pass through the orifices and fall under the machine. For frames see annexed drawings.

What I claim as my invention is—

The manner in which I have arranged the 30 knives projecting out from the revolving disks and so as to pass each other under the hoppers and also the arrangement of the several hoppers as described.

HARRY H. EVARTS.

Witnesses:

JOSEPH CRUNE, Jr.,
GEORGE H. ELLIOTT.