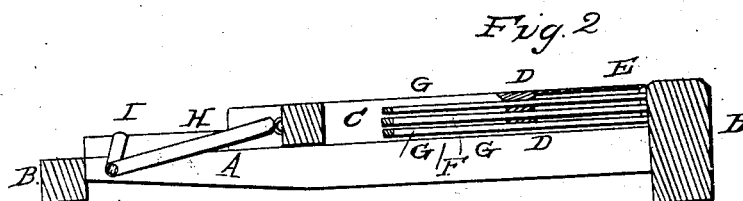
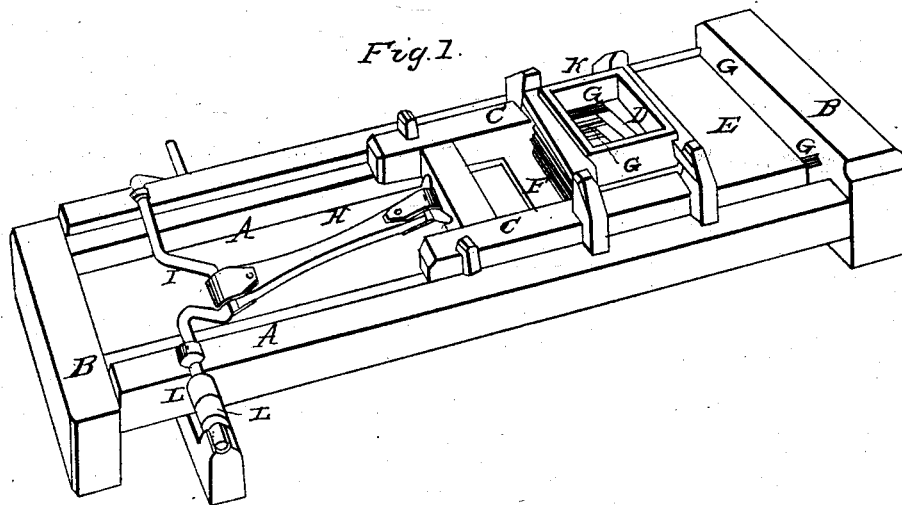


R. A. B. BEECH

Straw Cutter.

No. 708.

Patented April 24, 1838.



# UNITED STATES PATENT OFFICE.

R. A. B. BEECH, OF WILLIAMSON COUNTY, TENNESSEE.

## HORIZONTAL STRAW-CUTTER.

Specification of Letters Patent No. 708, dated April 24, 1838.

*To all whom it may concern:*

Be it known that I, ROBERT A. B. BEECH, of the county of Williamson, in the State of Tennessee, have invented a new and useful  
5 Improvement on the Straw-Cutters; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in attaching blades to a sash working horizon-  
10 tally for the purpose of cutting straw,—in the form, and construction of the aprons, and their attachment, to regulate the length of the straw, and to keep it from falling through,—and in the form and attachment  
15 of the ribs.

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

Two sills A A are framed together 12  
20 inches apart, to 2 head blocks, B B 11½ feet apart, one of the head blocks extending 6 or 8 inches above the sills, for the purpose of attaching ribs; the inside top edges of the sills are rabbeted out 1½ inches, for the sash  
25 to ply in. The sash C is 37¾ inches long, made of timbers about 3 inches square, framed 9 inches apart by two pieces, one 3 inches from the end next to the pitman, the other 3 inches from the first—one, two, three,  
30 or more blades may be used in proportion to the power to be applied. These are about 3 inches wide, and long enough to be fastened to the sash at an angle of not less than 11¼ degrees; they are fastened to the sash  
35 by bolts or otherwise, and are perfectly level on the upper side, and should always be ground on the under side. The first blade is let into and level with the top of the sash. The second blade under the first, with its  
40 edge about ¾ of an inch in advance of the edge of the first. The third in like manner under the second. The distance between the blades is in proportion to the length it is desired to cut the straw. The inside of the  
45 sash between the blades is grooved out for the ribs to work in when the sash plies backward and forward. An apron E of sheet iron or thin plank is placed behind the first blade and let into the sash, level with the blade, and extending back near to the head  
50 block, to prevent the straw from falling through when the blades go forward. A similar apron F is placed before the lower

blade, and about ¾ of an inch below it to pre-  
vent the straw from falling through when  
55 the blades go back. The number of ribs G is the same as the number of knives or blades; these are perfectly square at the corners, and wide enough for the sash to slide  
60 easy on them, and long enough toward the head blocks to allow the back corner of the upper blade to pass the ribs about ¾ of an inch when going forward. The length of the ribs from the corners to the hind head  
65 block is 22½ or 23 inches, these shouldered down, and shanks passing the head block of the sills and fastened. The pitman H is about 6 feet long with an iron loop on each  
end, one to go round the crank, the other fastened by a staple to the end of the sash.  
70 The crank I plays the sash 13 inches; by a bend of 6½ inches; the crank is confined in the sills. The box or hopper K for receiving the straw stands immediately above the  
75 play of the blades; it is 9 inches square at the bottom in the inside, and widens toward the top, the front on the inside, at the bottom is lined with a strip of iron or steel, to answer the place of one rib—the box stands  
80 firmly in a frame made on the sills. The straw is thrown endways into the base and the cutter feeds itself. The sash is confined down by four hook pins, or otherwise. The crank where it runs on the sills has a  
85 bulge or knob around it at each end to keep it to its place. The crank may be turned by cogs or a band—if a band is used, two whirls  
L L are necessary, one of them loose, on which to throw the band, when any ob-  
90 struction gets among the straw. If worked by hand a balance wheel is to be placed on one end of the crank; in this case one blade is sufficient. One great advantage of my in-  
vention is, there is no danger of accidents in feeding the cutter, the knives are placed in a  
95 situation that it is not necessary for the hand to be near them when working.

What I claim as my invention and which I wish to secure by Letters Patent is—

The combination of the aprons E and F  
100 with the horizontal gate and knives, and also the ribs in combination.

ROBERT A. B. BEECH.

Witnesses:

THOMAS MASTIN,  
JEROME STURDEVANT.