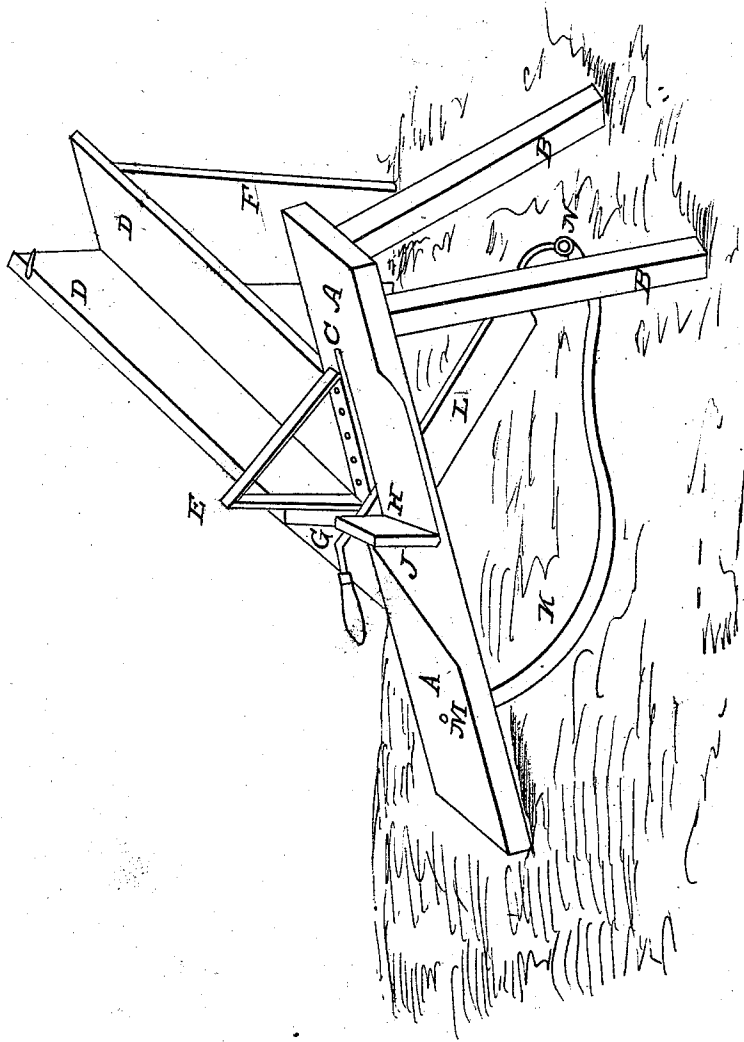


J. R. NELSON.

Straw Cutter.

No. 7,461.

Patented June 25, 1850.



# UNITED STATES PATENT OFFICE.

JOHN R. NELSON, OF KNOXVILLE, TENNESSEE.

## MOUNTING THE KNIFE OF STRAW-CUTTERS.

Specification of Letters Patent No. 7,461, dated June 25, 1850.

*To all whom it may concern:*

Be it known that I, JOHN R. NELSON, of Knoxville, Knox county, and State of Tennessee, have invented a new and useful Improvement Upon the Common Straw Cutter, which I call "Nelson's Triangled Straw-Cutter;" 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 to the drawing.

This straw cutter is formed with a bench five feet long, see drawing letter A, two inches broad and three inches thick one end of which is set upon a level surface and the other elevated on legs three feet high, marked B B in the drawing. The operator in using the cutter stands facing the upper ends of the bench with it on his right hand three inches from the side of the bench next to the operator a groove is cut through the bench wide enough for the ordinary English cutting knife to work freely in. This groove or slot extends from within eight inches of the upper end of the bench two feet down the bench parallel with the sides of the same and is marked C in the drawing at its lower termination it is sufficiently widened to free the knife from the cut straw it may have carried down with it, the box that holds the straw is three feet long made of two pieces of plank ten inches broad marked D D in the drawing and fastened together so that the inside of the box forms two sides and one angle of a triangle, a steel triangle each side fourteen inches long and perfectly true on its front edge is now sunk into the end of the box until its inside surface is perfectly even with the inside surface of the box and also flush with the end of the box, this triangle is E in the drawing the box with the steel triangle is now brought parallel to and flush with the slot or groove in the bench, the side of the box next to the upper end of the bench is so placed as to agree with the inclined position of the bench or in other words is set its thickness in the bench and extending out therefrom at right angles, the angle or bottom of the box is situated four inches from the lower termination of the slot or groove before described. The box and brush is then well fastened together by screws or otherwise. The outer end of the box is sustained in a level position by a leg or support extending from said box in a perpendicular line to the ground—this leg is marked F in the drawing. The upright

side of the box is supported at the point where it joins the bench by a triangular wooden brace or bracket marked G in the drawing in a continuous line with the upright side of the box. On the front side of the slot or groove in the bench. It (the box side) has a counterpart extending from said slot to the front edge of the bench marked H in the drawing, and sustained in its position by a triangle brace or bracket marked J, in the drawing which brace is flush with and parallel to the front end of the bench. A steel spring marked K in the drawing four feet long two inches broad and about one eighth of an inch in thickness at the lower end and about the sixteenth of an inch at the upper end is now attached to the lower side of the bench and near its lower end by a nut or bolt and key at M. This spring lies beneath and parallel with the slot or groove and so bolted or keyed as to remain in a line with said groove. It is curved in such a manner as to give it full room for action between the bench and the surface upon which the bench rests the knife edge down marked L in the drawing and which is the ordinary cutting knife is now passed through the slot C and its lower end secured to the lower end of the spring not fast to the bench at end. This union is best effected by cutting a slot in the end of the spring and turning each tongue back into a ring and then when the point of the knife is inserted therein pass a small bolt through the matching holes in the knife and spring securing the bolt in its place by a small nut or key. The handle of the knife being raised the spring is drawn up thereby. when the straw is pushed forward across the slot and under the edge of the knife and is by it compressed into the angle of the box when a small downward pressure assisted by the spring cuts the straw rapidly and easily. The front of the bench for the width of the steel triangle chamfered off to half its thickness or thereabouts to facilitate the discharge of the cut straw.

I claim of the above arrangement the placing of the pivot N, of the knife, upon a spring for the purpose of enabling the operator to give the knife a draw or sliding cut. The other parts are not claimed.

JOHN R. NELSON.

Witnesses:

R. S. A. ARMSTRONG,  
O. P. TEMPLE,