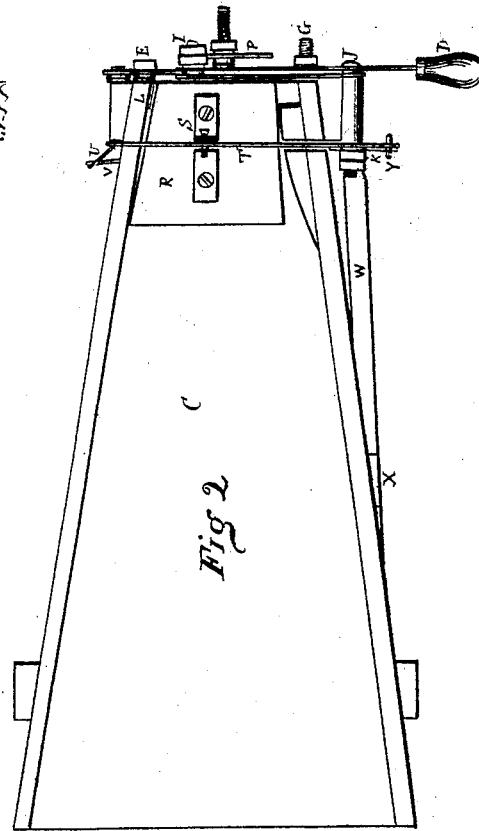
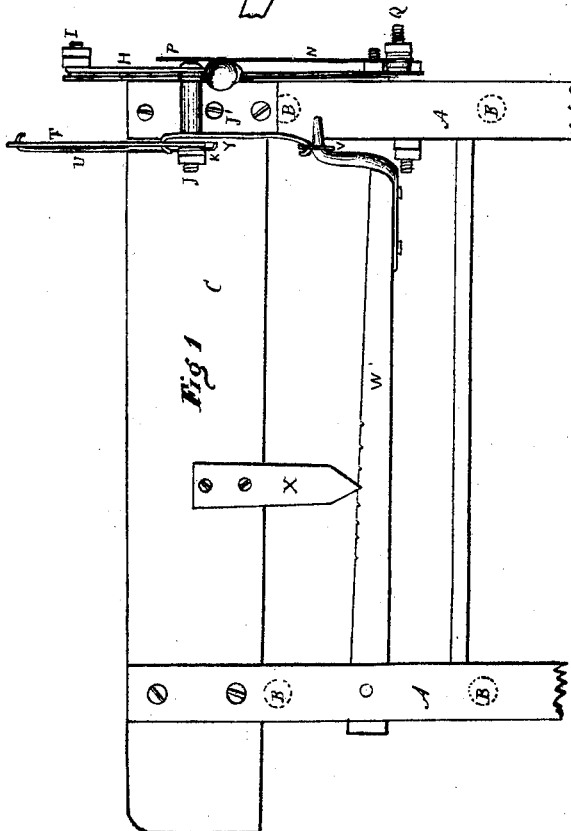
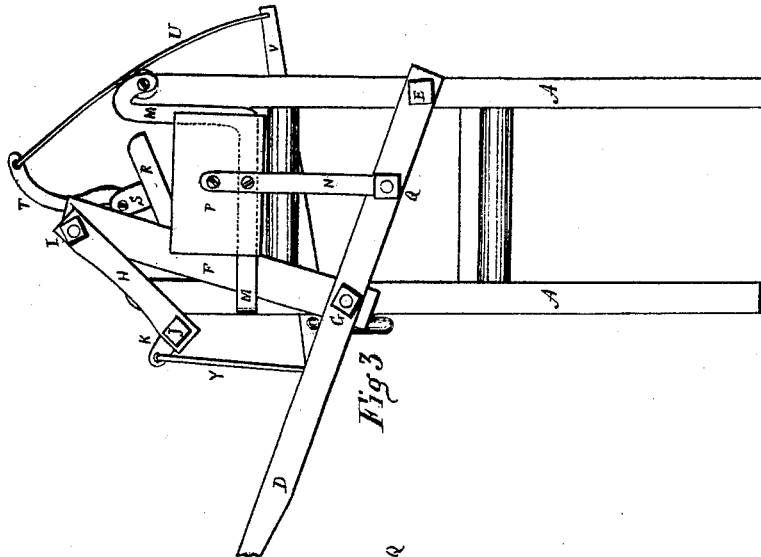


*P. P. Gross,*

*Straw Cutter.*

*No. 112,241.*

*Patented Feb. 28. 1871.*



*Witnesses*  
*Wm. H. Latham*  
*Wm. Dennis*

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

*Phillip P. Gross*  
*By his Atty, J. Dennis, Jr.*

# United States Patent Office.

PHILLIP PETER GROSS, OF PALMYRA, MISSOURI.

Letters Patent No. 112,241, dated February 28, 1871.

## IMPROVEMENT IN STRAW-CUTTERS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, PHILLIP PETER GROSS, of Palmyra, Marion county, in the State of Missouri, have invented certain new and useful Improvements in Straw-Cutters; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

The nature or essence of my invention consists in the peculiar construction and arrangement of devices described and claimed in the following specification and represented in the accompanying drawing, in which—

Figure 1 is an elevation of one side of a machine with my improvements.

Figure 2 is a plan or top view, and

Figure 3 is an end elevation.

In this drawing—

A A are four posts, connected by the four girders B B, to support the cutting-box C, which is made in the form shown, and fastened to the top of the posts A.

The hand-lever D vibrates on the bolt E in the post A, and carries the knife F, connected to it by the bolt G.

This knife F is made in the form shown, and its upper end is connected to the link h by the bolt I. The other end is fastened to the rock-shaft J, to work it, and vibrates the arm K.

This rock-shaft J works in a stand, J', fastened to the post A, as shown in the drawing.

By the above-described arrangement, when the hand-lever D is worked, the knife F is carried obliquely across the end of the cutting-box with a drawing stroke, to cut off the hay, straw, or other fodder to be cut, the end of the box being armed with an iron-plate, L, for the knife F to cut by as it is carried down by the lever D.

To hold the knife F up to the end of the box C, I fasten the bent plate M to the posts A A, so that the knife will work freely between the plate and the end of the box.

To graduate the length of the straw cut, I fasten the arm N to the lever D, and fasten the plate P to the arm, and, by changing the washers on the bolt Q, which fastens the arm N to the lever D, the plate P may be set further from or nearer to the knife, to cut the straw long or short, as desired.

To hold the straw firmly while it is being cut, I make a clamping-block, R, to work in the box C, and fasten the stand S to it, to connect it to the lever T, which works it, which lever T is fitted to vibrate freely on the rock-shaft J, and is worked by the rod U from the opposite end of the lever T to the lever V, which vibrates on the end of the spring-bar W, fastened to the post A, and held down by the bracket X, fastened to the box C.

The inner end of the arm K extends under the lever T, to raise it when required.

The lever V extends beyond its fulcrum, and is connected by the link Y to the arm K, fastened to the rock-shaft J, so as to be worked by it, to pull up the short end of the lever V, and pull down the lever T with the block R, to clamp and press down the straw under it.

To operate the machine, the workman seizes the lever D with his right hand and raises it, which carries up the knife F and turns the rock-shaft J, and raises the clamping-block R, when he pushes the straw under it with his left hand, and then depresses the lever D, which carries down the knife F and cuts off the straw, which operation may be repeated as long as required.

I claim—

The combination of the clamping-block R, lever T, rod U, lever V, spring-bar W, link Y, and arm K, fastened to the rock-shaft J, to work the clamping-block, when arranged substantially as described.

PHILLIP P. GROSS.

Witnesses:

ANTON HIRNER,  
JOHN BAUM.