W. GREEN.

Straw Cutter.

No. 52,992. Patented March 6, 1866.

Fig. 2,

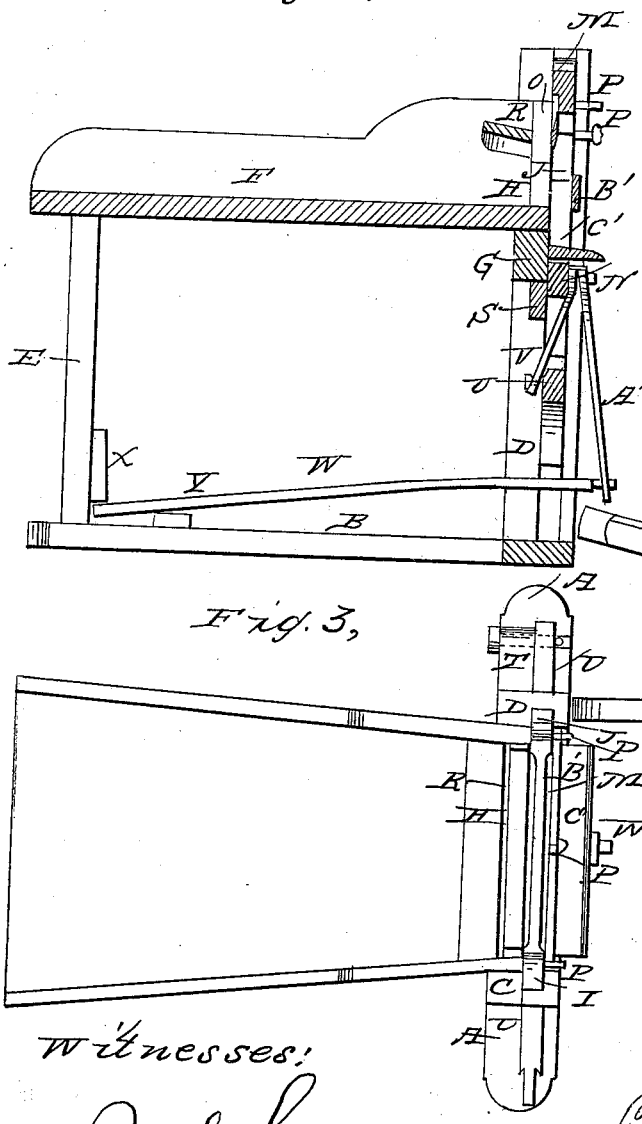

Fig. 1,

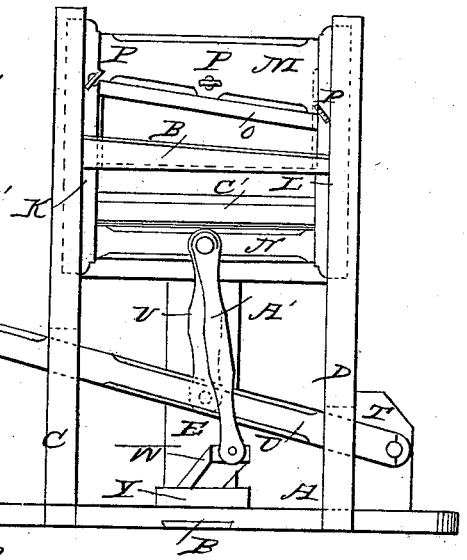

Fig. 3,

Witnesses:

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UNITED STATES PATENT OFFICE.

WELLINGTON GREEN, OF KINZUA, PENNSYLVANIA.

IMPROVEMENT IN CUTTING-BOXES.

Specification forming part of Letters Patent No. **52,992**, dated March 6, 1866.

To all whom it may concern:

Be it known that I, WELLINGTON GREEN, of Kinzua, in the county of Warren and State of Pennsylvania, have invented a new and useful Improvement in Cutting-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front end view of my improved cutter-box. Fig. 2 is a vertical longitudinal section. Fig. 3 is a top or plan view of my improved cutting-box.

Similar letters of reference indicate like parts.

My invention has for its object the furnishing a cutting-box which will do its work well, and which is so arranged as to be adjustable to compenstate for the wear of the knife or knife-frame; and it consists, first, in combining a wooden spring and a pitman with the frame of the box and with the knife-frame; second, in the combination and arrangement of a pitman with the treadle and with the knife-frame; and, third, in the combination and arrangement of the set-screws for adjusting the knife with the knife and with the knife-frame, as hereinafter more fully set forth.

A is the cross, and B the longitudinal, foundation-sills of the machine. C D are the front, and E the rear, uprights, which sustain the knife-frame and feeding-box of the machine. F is the feeding-box, in which the hay or straw to be cut is placed, and through which it is fed to the knife. The rear end of the box F is supported by the upright E and the front end by a cross-piece, G, secured to the uprights C and D.

At the front end of the box F is attached a metallic bed-plate, H, against which the knife presses the straw in cutting, and which prevents the front end of the box F from being worn away by the knife so rapidly as would be the case if the box were not thus protected. In the uprights C and D, just in front of the forward end of the box F, are formed grooves I and J, in which the knife-frame works.

The knife-frame is composed of two uprights, K and L, working in the grooves I and J, and two cross-bars, M and N.

The knife O is let into the knife-frame in an inclined position, as shown. The knife O is adjusted by means of the set-screws P, passing through the knife-frame, their ends resting against the side of the knife. By means of these screws the knife may be adjusted so that its edge may always be close up to the edge of the bed-plate H, thus compensating for the wear of the machine.

R is a guide-board placed in the front part of the box F, to prevent the straw rising so high as to escape the action of the knife O.

The space below the box F, between the uprights C and D, and in the rear of the knife-frame, is boarded up as far down as the lowest point of descent of the cross-bar N of the knife-frame, as shown at S, Fig. 2, so as to prevent the cut straw from passing beneath the machine.

T is a block attached to the cross-sill A and to the upright D, and to which the lever or treadle U is pivoted.

In the lower part of the uprights C and D the grooves I and J are cut through said uprights, so as to form slots, and through these slots the treadle U passes. This treadle terminates in a tenon, w', to which a handle may be attached, if it is desired to work the cutter by hand. The treadle U is connected with the cross-bar N of the knife-frame by the pitman V. This pitman is attached to the front side of the cross-bar N and to the rear side of the treadle U, so as to stand in the inclined position represented in Fig. 2. The object of this is that when the knife-frame is drawn down by the treadle U the power may be applied in such a direction as will tend to draw the knife-frame and knife close up against the bed-plate H, and guard against the knife's slipping over the straw without cutting it.

W is a wooden spring that forces back the knife-frame after it has been drawn down by the treadle U. The rear end of the spring W is held in place by the block X, attached to the upright E, as shown in Fig. 2.

Y is a movable block, the lower side of which may be grooved so as to slide along the longitudinal sill B, so as to regulate the power exerted by the spring W.

The spring W is of such a length as to extend out a little in front of the frame of the machine, as represented, so that the pitman A′,

which connects the said spring to the cross-bar N of the knife-frame, as shown in Fig. 2, may incline in such a direction that the pressure constantly exerted by the said spring may always tend to hold the knife-frame close up against the bed-plate H.

B′ is a board attached to the front of the knife-frame in such a position that it may be a little above the bottom of the box F, when the knife is raised, to act as a gage in regulating the length of the pieces into which the straw is cut.

Upon the top of the cross-bar N is placed an inclined board, C′, upon which the cut straw falls from the knife, and by which it is carried so far forward as to fall in front of the machine.

When it is desired that the cut material should be deposited in a box the board C′ may be replaced by a spout, which may receive the cut material from the knife and convey it to the proper place.

I claim as new and desire to secure by Letters Patent—

1. The combination of the wooden spring W and pitman A′ with each other and with the knife-frame and the frame of the cutting-box, substantially as described, and for the purpose set forth.

2. The combination and arrangement of the pitman V with the knife-frame and with the treadle, substantially as described, and for the purpose set forth.

3. The combination and arrangement of the set-screws P with the knife O and with the knife-frame, substantially as described, and for the purpose set forth.

WELLINGTON GREEN.

Witnesses:
M. N. POWELL,
R. H. ENGLISH.