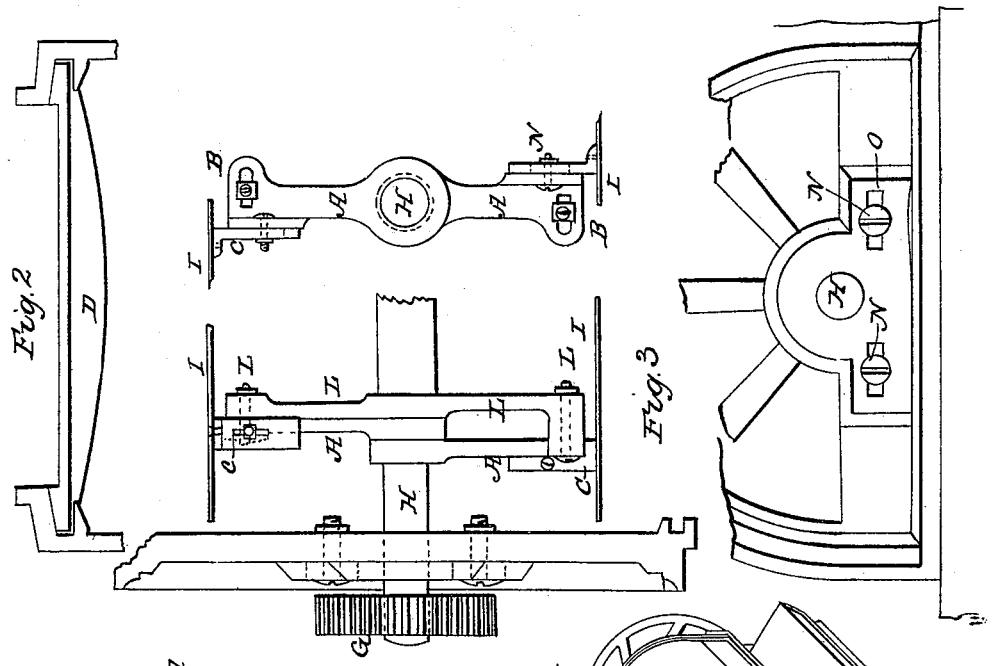
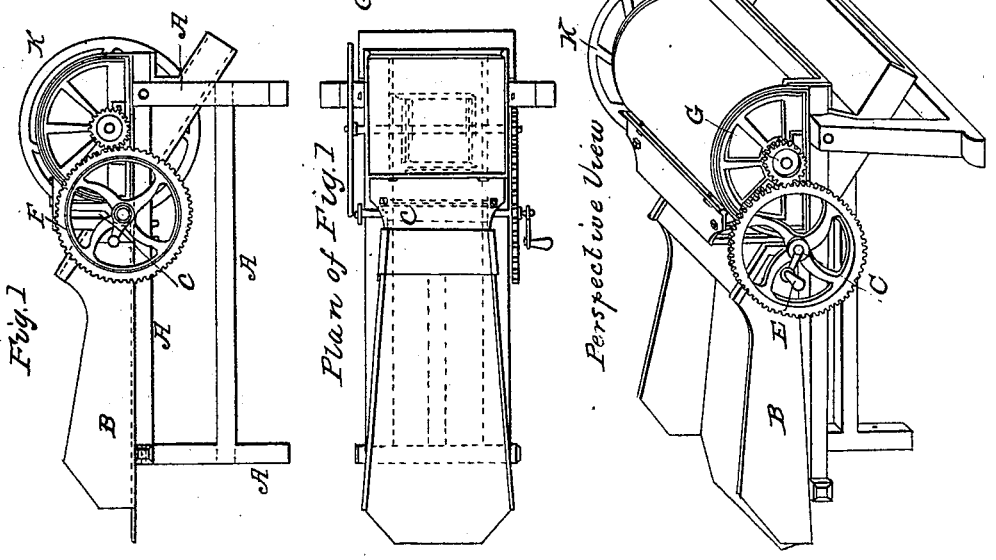
J. W. WEBB.

Straw Cutter.

No. 7,711. Patented Oct. 8, 1850.





UNITED STATES PATENT OFFICE.

JOSEPH W. WEBB, OF AURORA, NEW YORK, ASSIGNOR TO BENJAMIN GOULD.

ADJUSTMENT OF KNIVES IN STRAW-CUTTERS.

Specification of Letters Patent No. 7,711, dated October 8, 1850.

To all whom it may concern:

Be it known that I, JOSEPH W. WEBB, of the village of Aurora, in the town of Ledyard, county of Cayuga, and State of New York, have invented a new and useful Improvement in Straw-Cutters, and that the following is a clear and exact description of the principal or character thereof which distinguishes it from all others before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view and Fig. 2 is a representation of the shaft to which the knives are attached in the manner claimed to be new.

In an improvement in straw cutters secured to me by Letters Patent bearing date the tenth day of February one thousand eight hundred and forty-six in which the knives are straight on the cutting edge and face and are connected with the shaft with the cutting edges on a line diagonal therewith, and the outer face on tangents so that the end that first commences the cut is tangential to a smaller diameter than the other, or in other words in which the faces of the knives are tangential to a cone, for purposes fully set forth in the Letters Patent before recited. Experience has shown the necessity of further improvement in order to a more accurate adjustment of the cutting edges of the knives to the bed cutter or shear when the angle of the edge of the knife has become changed by wear or by imperfect grinding without the liability of binding.

In the accompanying (Fig. 1) A is the frame. B the box. C, C, the feed rollers, and D the bed cutter or shear made in the usual manner. The crank, E, for driving the machine by manual power is attached to the shaft of the lower feed roller, C, and on this same shaft there is a large cog wheel, F, which communicates motion to a pinion, G, on the shaft, H, of the cutting knives *i i* the said shaft having on the other end the fly wheel, *k*, to regulate the momentum.

The shaft, H has two sets of arms (L L) the axis of each set passes through the shaft and project equally on either side. On this shaft and on the outside of each set of arms I place two pendulous or false arms as shown at A, A, A, A in Fig. 2, constructed as shown at B, Fig. 2. To these pendulous or false arms I secure by means of the screw bolts N, N, N, N, the flanch pieces which holds the knives as shown at C in Fig. 2 instead of securing them to the permanent arms (L L) as in the Letters Patent before recited. These pendulous or false arms rotate on the shaft H, and are secured to the outer end of the permanent arms by means of the sliding bolts in the grooves as shown at L, in Fig. 2. By means of these pendulous or false arms rotating on the shaft as above described the operator can form any required angle rendered necessary in consequence of wear or imperfect grinding of the knives and then by the screw bolts L, is made secure in the desired position.

At N in Fig. 3, is a representation of the movable box on which rests the shaft, H, which is secured to the side of the machine by two screw bolts passing through the box and sliding in the elongated holes *o*, *o*. By means of this movable box the operator can regulate the depth of the mesh of the cogs on the pinion, G, which is on the shaft, H, into those on the cog wheel F, as may become necessary by the wear of the same.

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

The mode of attaching the knives to the permanent arms by means of the pendulous or movable arms rotating on the shaft and secured to the permanent arms by means of screw bolts passing through elongated holes in the movable arms thereby allowing the cutting edge of the knives to be placed at any required angle necessary for adjusting them to the bed cutter or shear, in combination with the movable box for regulating the mesh of the cog of the pinion into those of the wheel substantially as described.

JOSEPH W. WEBB.

Witnesses:
ROBT. MILLS,
WM. A. HOWELL.