

(No Model.)

J. A. LAWS.
OAT CUTTER.

No. 463,059.

Patented Nov. 10, 1891.

Fig. 1.

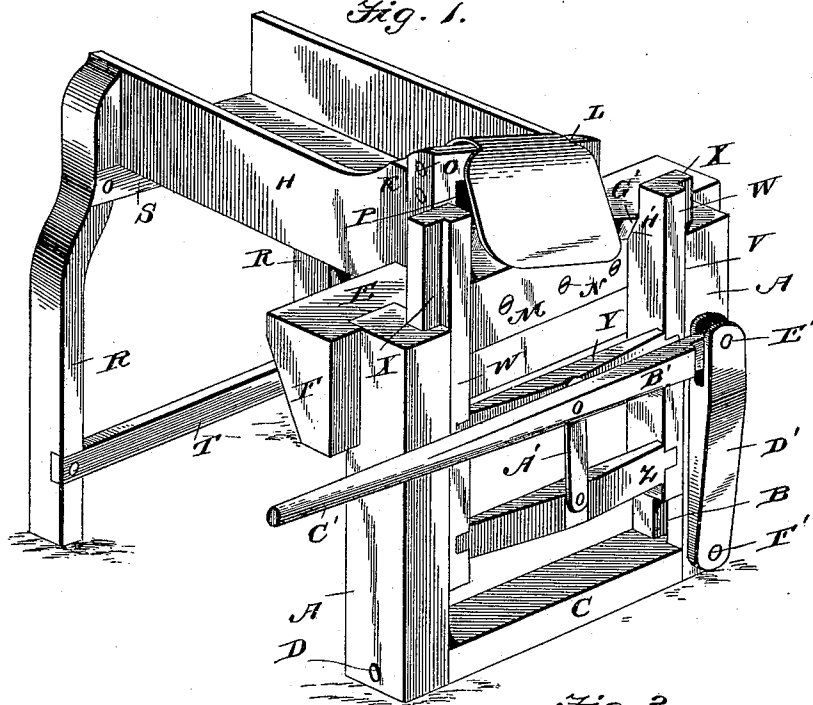


Fig. 2.

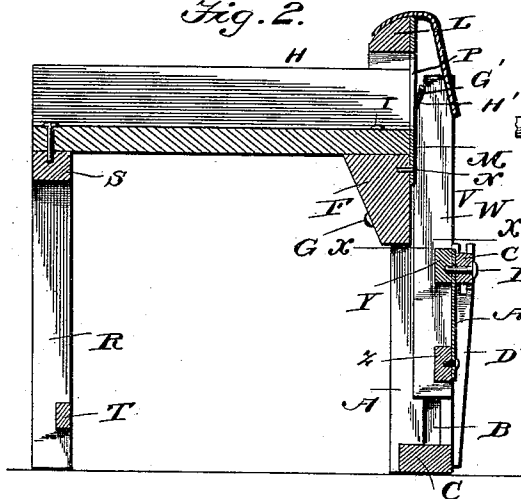


Fig. 3.

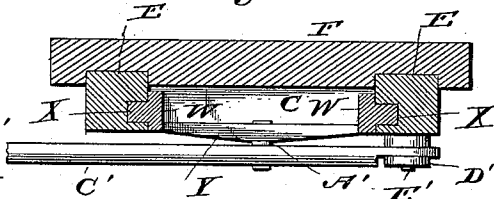


Fig. 4.

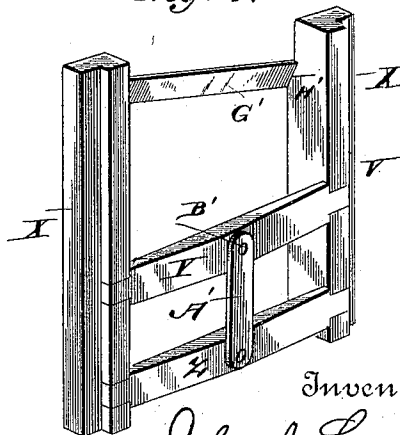
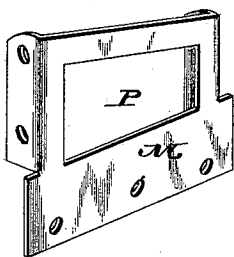


Fig. 5.



Witnesses
[Signature]
Wm. J. Little

Inventor
John A. Laws,
By his Attorney,
[Signature]

UNITED STATES PATENT OFFICE.

JOHN ADERSON LAWS, OF LAWS, TEXAS.

OAT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 463,059, dated November 10, 1891.

Application filed February 18, 1891. Serial No. 381,776. (No model.)

To all whom it may concern:

Be it known that I, JOHN ADERSON LAWS, a citizen of the United States, residing at Laws, in the county of Franklin and State of Texas, have invented certain new and useful Improvements in Oat-Cutters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in straw and hay cutters designed especially for use in cutting sheaf oats; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

The object of my invention is to provide a cheap, simple, and efficient machine for cutting sheaf oats, which is adapted to be easily operated and is not likely to get out of order.

In the accompanying drawings, Figure 1 is a perspective view of my improved straw-cutter. Fig. 2 is a vertical central longitudinal sectional view of the same. Fig. 3 is a horizontal section taken on the line xx of Fig. 2. Figs. 4 and 5 are detail views.

A represents a pair of standards provided on their inner sides with the vertical guideways or grooves B. A cross-bar or sill C connects the lower ends of the standards, the ends of the sill being tenoned and fitted into the lower ends of the grooves, and screws or bolts D pass through the lower portions of the standards and enter the ends of the sill, thereby firmly securing the latter in place between the standards. The upper ends of the standards are fitted in vertical grooves E, made near the ends of a horizontal cross-beam F, which is arranged on the rear sides of the standards and connects their upper ends. Bolts or screws G are employed to secure the beam to the standards, as shown. On the central portion of the beam is fitted the front end of the box or trough H, the bottom of which is sunk in a rabbet made in the upper side of the beam, and screws I pass through the bottom of the box or trough and enter the beam to secure the box or trough thereto. One side of the box or trough is provided at its front end with a vertical extension K, and an inclined cross-bar L connects the sides of

the box at its front end, the said cross-bar being on the upper edge of one side of the box and on the vertical extension of the other side. A plate M, made of steel or iron, is arranged on the face or front end of the box and extends down partly over the beam and is secured to the latter by screws N. The side edges of the plate are turned back at right angles and bear against the sides of the box or trough and are secured thereto by screws O. The plate serves as a sheath for the front end of the box and has an opening P at the end of the box, the lower side of the opening being horizontal and the upper side thereof being inclined, as shown. The rear end of the box is supported by a pair of legs R, the upper ends of which bear against the sides of the box and are secured thereto by screws. A cross-bar S connects the legs R and is arranged directly under the rear end of the box, the ends of the bar being mortised in the legs and secured to them by screws. Near their lower ends the legs are connected together by a bar T, the ends of which are sunk in the legs and also secured by screws.

V represents the knife-frame, which consists of the pair of vertical side pieces W, having flanges X, which travel and fit in the grooves B of the vertical standards, and cross-bars Y Z, which connect said side pieces near their centers and lower ends, respectively. The ends of the said cross-bars are rabbeted in the side pieces and secured by screws or other suitable means. A metallic strap A' connects the central portions of the cross-bars, its lower end being secured to the lower bar Z by a screw and its upper end being secured to the upper bar by a pin or bolt B', which serves also as the fulcrum for the lever C'. The short end of the lever is pivotally connected to a link D' by a pin or bolt E', the lower end of said link being pivoted to the lower portion of one of the vertical standards by a pin or bolt F'. The lever serves the purpose of raising and lowering the knife-frame, as will be readily understood. The knife G' is arranged in an inclined position on the inner sides of the side pieces W near their upper ends and is on the same angle as and parallel with the inclined upper side of the plate M. Inclined seats H' are made in the inner sides of the side pieces for the knife, and the

latter is hence adjusted obliquely as well as being inclined, thus bringing the cutting-edge of the knife directly in contact with the plate, thereby greatly reducing friction and also obviating excessive wear on the knife and plate incident to friction. The ends of the knife are turned forward at right angles and arranged in recesses I' in the side pieces of the frame.

10 In the operation of my invention the inclined position of the knife and the upper edge of the plate cause the straw to be forced laterally to one side or corner of the box and compressed and held rigid under the action
15 of the knife, thereby enabling the latter to make a shear cut and very much enhancing the efficiency of the machine.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

20 1. In a straw-cutter, the combination of the feed-box provided at its face with the plate having the inclined upper edge and the vertically-moving frame having the knife, the
25 latter being arranged in an inclined position

parallel with the upper edge of the plate and being further arranged obliquely laterally, whereby only the cutting-edge of the knife is in contact with the plate, substantially as described. 30

2. In a straw-cutter, the combination, with the feed-box provided at one end with a feed-opening, of a vertically-moving inclined knife arranged obliquely to the face of the feed-box, substantially as and for the purpose set forth. 35

3. In a straw-cutter, the combination, with the feed-box provided at one end with a feed-opening, of the vertically-moving frame, the inclined knife carried by the latter and arranged obliquely with relation to the feed-opening, and means for operating the knife, substantially as and for the purpose set forth. 40

In testimony whereof I affix my signature in presence of two witnesses.

JOHN ADERSON LAWS.

Witnesses:

JOHN SELVIDGE RAMSEY,
HENRY LOUIS MOTE.