

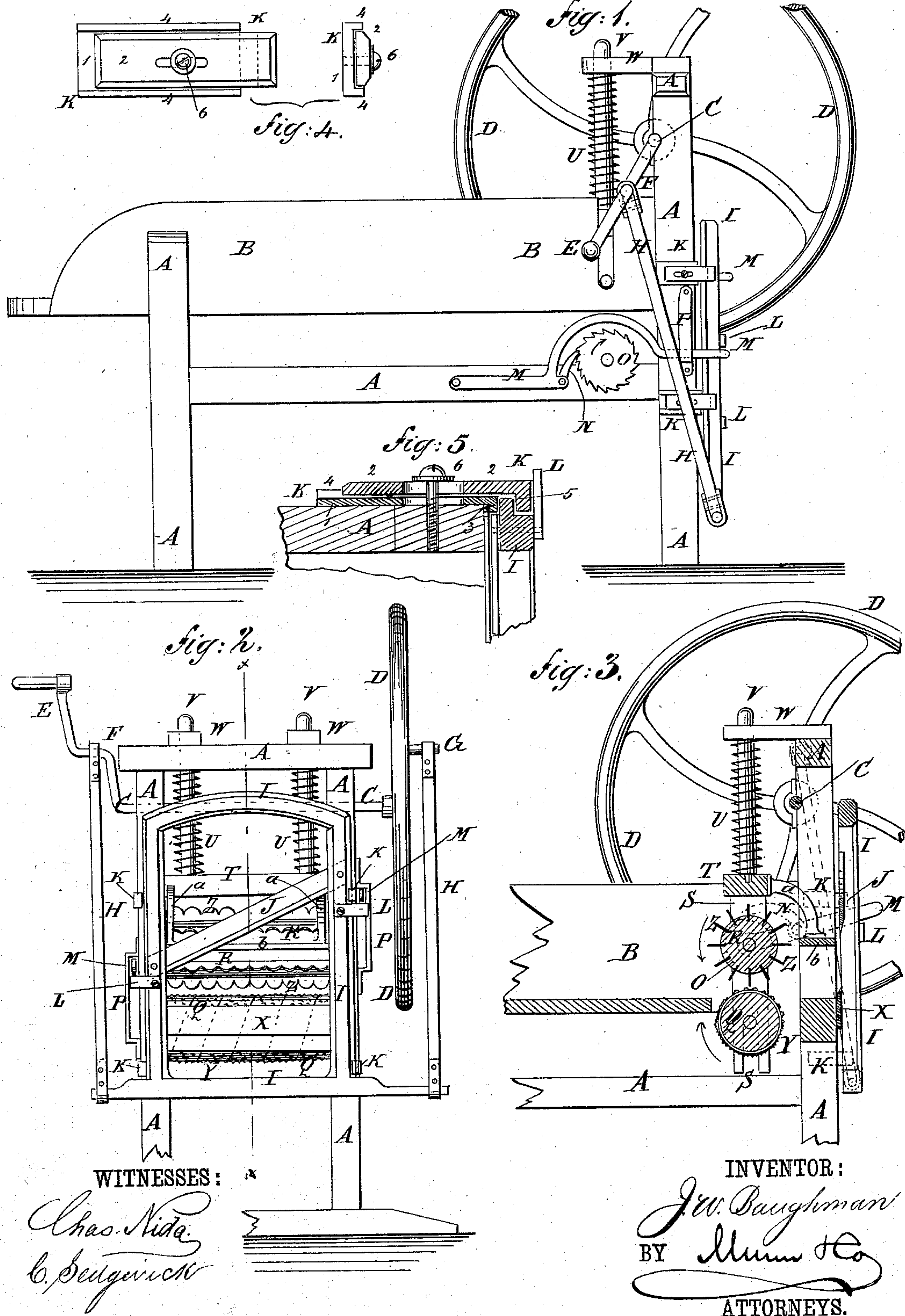
(No Model.)

J. W. BAUGHMAN.

STRAW CUTTER.

No. 254,905.

Patented Mar. 14, 1882.



UNITED STATES PATENT OFFICE.

JOHN W. BAUGHMAN, OF WOOSTER, OHIO.

STRAW-CUTTER.

SPECIFICATION forming part of Letters Patent No. 254,905, dated March 14, 1882.

Application filed December 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BAUGHMAN, of Wooster, in the county of Wayne and State of Ohio, have invented certain useful Improvements in Straw-Cutters, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my improvement, part being broken away. Fig. 2 is a front elevation of the same. Fig. 3 is a sectional side elevation of the forward part of the same, taken through the line *xx*, Fig. 2. Fig. 4 is a plan view and an end view of one of the knife-frame gibs. Fig. 5 is a sectional view of one of the gibs, and showing a part of the machine-frame and of the knife-frame.

The object of this invention is to promote efficiency in the operation of straw-cutters.

A represents the frame of the machine, and B is the feed-box. The front posts of the frame A rise above the top of the feed-box B, and to their upper parts are attached bearings, in which revolves a shaft, C.

To one end of the shaft C is attached a large balance-wheel, D. To the other end of the shaft C is attached, or upon it is formed, a crank, E, by means of which the machine is operated.

Upon the middle part of the arm of the crank E is formed an offset or second crank, F, and to a spoke of the balance-wheel D, at the same distance from the axis of the shaft C, is attached a crank-pin, G.

To the crank F and the crank-pin G are pivoted the upper ends of two connecting-rods, H, the lower ends of which are pivoted to journals formed upon the lower corners of the knife-frame I. The frame I slides up and down along the forward end of the frame A, and has a knife, J, attached to it in an inclined position. The knife-frame I is kept in place by and slides up and down in gibs K, secured to the front posts of the frame A. The gibs K are made in two parts, 1 2. The part 1 is let into the outer sides of the front posts of the frame A, and has an inwardly-projecting flange, *c*, formed upon its forward end, which overlaps the forward sides of the said posts. Upon the edges

of the outer side of the part 1 of the gib K are formed flanges 4, to form a channel to receive the other part, 2, which has an inwardly-projecting flange, 5, formed upon its forward end. With this construction the side edges of the knife frame I, or tongues formed upon the said side edges, slide between the flanges 3 5 of the gibs K. The parts 1 and 2 of the gibs K are slotted longitudinally to receive the bolt 6, that also passes into or through the post of the frame A, so that the gibs can be adjusted to take up the wear by loosening the said bolt 6 or its nut.

To the side bars of the knife-frame I are attached, or upon them are formed, lugs L, which, as the said frame I moves upward, strike against and raise the forwardly-projecting ends of the levers M, pivoted the one to the side bar of the frame A and the other to the side of the feed-box B, or to the journal of the upper feed-roller.

To the levers M are pivoted pawls N to engage with the teeth of the ratchet-wheels O, attached the one to a journal of the lower feed-roller and the other to a journal of the upper feed-roller. The pawl N of the upper feed-roller is pivoted to its lever M at the forward side of its ratchet-wheel O, and the pawl N of the lower feed-roller is pivoted to its lever M at the rear side of its ratchet-wheel O, so that the upward movement of the two levers M will turn the two feed-rollers in opposite directions, and thus carry the material to be cut forward. The levers M are kept in place, and are made to operate in vertical planes by the keepers P, attached to the opposite sides of the machine, and through which the said levers M pass.

The journals of the lower feed-roller, Q, revolve in bearings attached to the frame A, in such positions that the upper side of the said feed-roller may be level, or nearly level, with the upper surface of the bottom of the feed-box B. The journals of the upper feed-roller, R, revolve in bearings in the upright bars S, which slide up and down in grooves in the inner surfaces of the sides of the feed-box B. The lower parts of the bars S are slotted longitudinally to receive the journals of the lower roller, Q, so that the movements of the said bars will not be obstructed by the said journals. The upper

ends of the bars S are attached to the ends of the cross-bar T, so that the said bars will move up and down together. The upper roller, R, is held down to its work by spiral springs U, placed upon the guide-rods V, with their lower ends resting against the upper side of the cross-bar T and their upper ends resting against the lower sides of the guide-arms W, attached to the top cross-bar of the front posts of the frame A. The lower ends of the guide-rods V are attached to or rest in sockets formed in the upper side of the cross-bar T, and their upper parts pass through and slide up and down in guide-holes in the arms W.

To the forward side of the frame A is attached a steel plate, X, in such a position that the straw, while being cut, will rest upon the upper edge of the said plate, which thus serves as a stationary knife.

The lower feed-roller, Q, is faced or covered with sheet-iron Y, which is perforated, and is attached to the said roller with its rough side outward, as indicated in Figs. 2 and 3.

In longitudinal grooves in the face of the upper roller, R, are secured metal strips Z, which are set radially and have their outer edges scalloped or serrated, as shown in Figs. 2 and 3, to cause the said rollers to take a firm hold upon the straw and feed it forward regularly.

To the cross-bar T are attached the ends of two arms or bars, *a*, which are curved forward and downward, as shown in Fig. 3, and to their lower ends is attached a plate, *b*, in such a position as to rest upon the straw with its outer edge close to the plane of the knife J, so as to hold the straw down while being cut.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a straw-cutter, the adjustable gibs K, constructed substantially as herein shown and described, and consisting of the plate 1, having end and side flanges, the plate 2, having end flange and longitudinal slot, and the fastening-bolt 6, as set forth.

2. In a straw-cutter, the guide-arms W, the rods V, and the cross-bar T, in combination with the bars S and the device *a b*, whereby the top roll and plate *b* are pressed simultaneously upon the straw, as and for the purpose specified.

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Witnesses:

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