(No Model.)

O. M. SACKET.

STRAW CUTTER.

No. 263,968. Patented Sept. 5, 1882.

Fig. 2

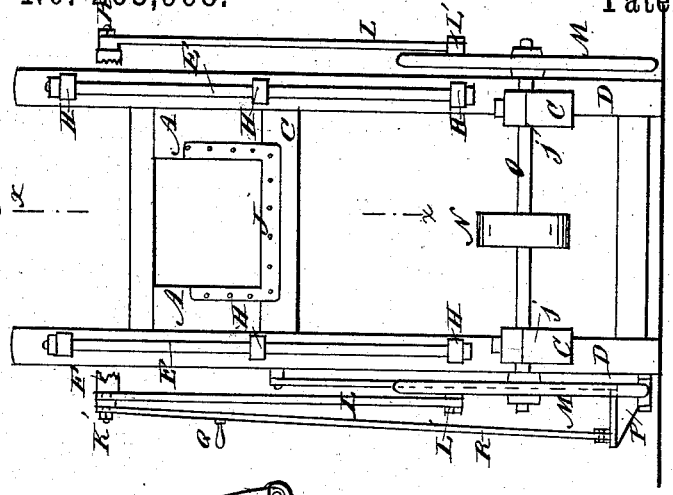


Fig. 4

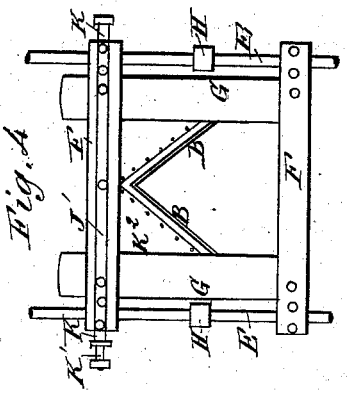


Fig. 1

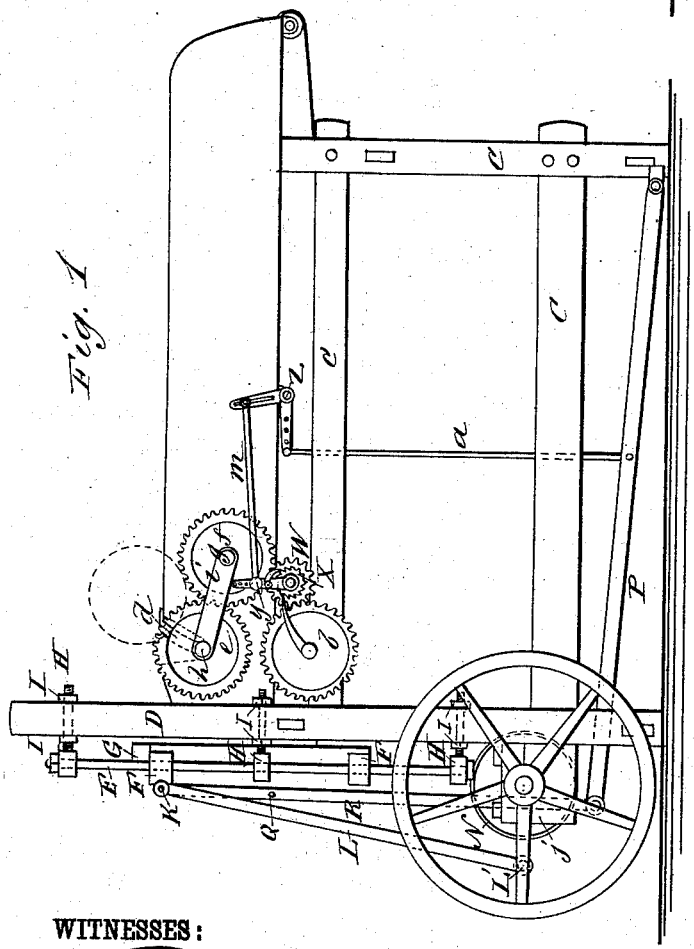
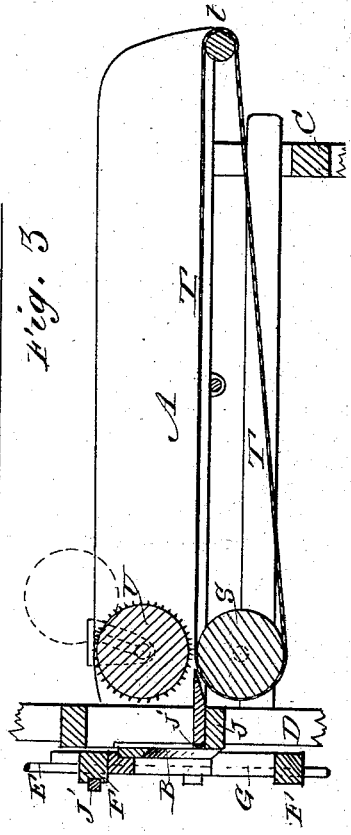


Fig. 3



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STRAW-CUTTER.

SPECIFICATION forming part of Letters Patent No. 263,968, dated September 5, 1882.

Application filed April 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, ORSEMUS M. SACKET, of Shippensville, in the county of Clarion and State of Pennsylvania, have invented a new and Improved Feed-Cutting Machine, of which the following is a full, clear, and exact description.

This invention consists of improvements in feed-cutting machines, the object of which is to contrive such machines in a simple and effective arrangement, that may be operated either by hand, foot, or other power, as hereinafter more fully set forth, and pointed out in the claims.

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 the said improved feed-cutting machine. Fig. 2 is an end elevation of the same, with the knife and the frame by which said knife is carried detached. Fig. 3 is a longitudinal sectional elevation taken on line *x x* of Fig. 2, and Fig. 4 is an elevation of the knife and knife-frame.

A represents the box, in which the hay and other matters to be cut are supplied, in the usual way, to the cutter B, the said box being mounted on a frame, C, of the usual form, with posts D at the cutting end extended above the box for the support of the guide-rods E, on which the knife-frame F G works. These guide-rods I propose to connect with the posts D by three adjoining stud-bolts, H, having check-nuts I, by which the rods can be readily adjusted for proper alignment, and also for regulating the knife B with relation to the bar J, against which it cuts at the end of the feed-box. The said knife consists of an Λ-shaped blade, in one piece, with cutting-edges on the inside of the angle, and being removably bolted to the plate K^2, by which it is fastened to the knife-frame F G. The shape of the knife is designed to increase the efficiency by shear-cutting the feed from the sides of the box or corners of the bar J toward the center, and so forcing the material into the angle of the knife that the power is delivered with better effect than with a straight oblique knife, cutting only one way.

The upper cross-bar of the knife-frame has a metal rod, J′, attached, which projects at the ends to form pivots K for the connecting-rods L, which connect the knife-frame with the balance-wheels M, by which the power is applied when the machine is to be driven by a belt running on the pulley N on the shaft O, and which said wheels M regulate the motion of the cutter-frame when the cutter is to be worked by the foot-treadle P or by the hand attachment Q, or both, the said rods L being connected to crank-pins L′ on the wheels M.

For the treadle and hand attachment the rod J has an extension-pivot, K′, at one side for attaching the connecting-rod R of the foot-treadle.

For the feed motion the roller S, carrying an endless belt, T, over roller *t*, and the pressure toothed roller U, are arranged in the box just behind the knife B and geared with a driving-pinion, W, which is operated by a ratchet, X, and pawl Y, the pawl being connected by rod *m* with the bell-crank Z, which is connected by a rod, *a*, with the treadle P and worked by it.

The roller S has its toothed wheel *b* geared directly with the pinion W; but roller U, which has its journals in slotted bearings *d*, (dotted,) so as to rise and fall as the quantity of material passing under it varies, has its wheel *e* geared with said pinion by an intermediate wheel, *f*, and the journals *g* and *h* of the two wheels are connected by a radius-bar, *i*, which keeps them in gear. The balance-wheels M are mounted by their shaft O in bearings *j*, by which they are supported just above the floor when the machine stands on its legs D, said bearings being projected a little in advance of the legs D, so that by tilting up the rear end of the cutter-box the machine will be lifted off the legs D and supported on the wheels M, to be rolled about over the floor conveniently.

Thus it will be seen that a machine is provided having superior cutting capacity and being adapted for hand-power alone or foot-power, or both, also for other motive power, and having self-feed, and also being arranged for being moved about easily.

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

1. The combination of the feed-cutting knife B, reciprocating frame F G, guide-rods E, and adjusting stud-bolts H and nuts I, substantially as specified.

2. The combination of connecting-rod R and foot-treadle P with balance-wheels M, connecting-rods L, reciprocating frame F G, the rod J, having the projecting end K′, and knife B, substantially as specified.

3. The combination, in a feed-cutter, of balance-wheels M, connecting-rods L and R, reciprocating cutter-frame F G, knife B, treadle P, and the feed-rolls S U and endless apron T, said feed-rolls being operated by the treadle P, substantially as specified.

4. The feed-rolls S U, provided with cog-wheels *b e*, the radius-bar *i*, intermediate wheel, *f*, pinion W, ratchet X, pawl Y, bell-crank Z, and connecting-rods *m a* and foot-treadle P, combined and arranged substantially as specified.

5. The combination, in a feed-cutting machine, of the knife B, reciprocating frame F G, balance-wheels M, connecting-rods L, connecting-rod R, foot-treadle P, and hand attachment Q, substantially as specified.

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