JESSOP, WANBAUGH, ILGENFRITZ & BAKER.

Straw Cutter.

No. 4,391. Patented Feb. 20, 1846.

Fig. 1.

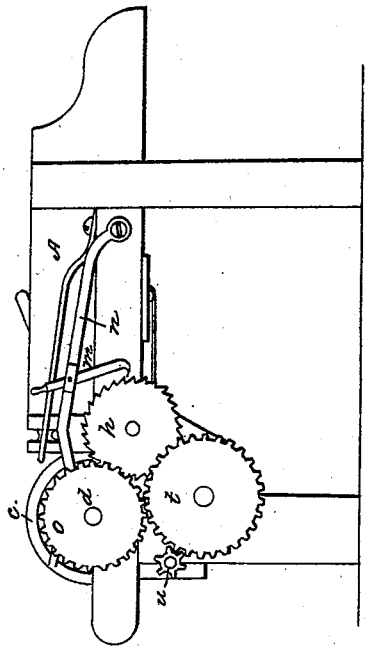
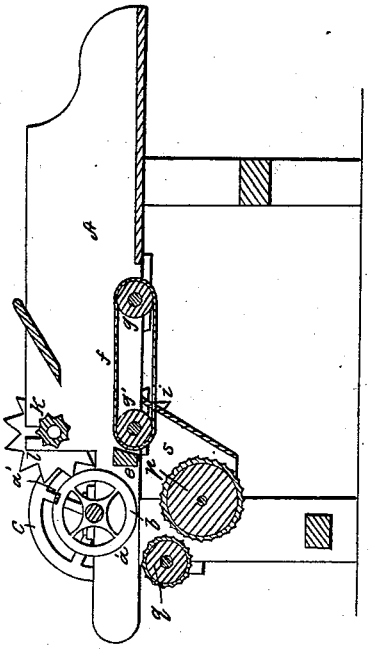


Fig. 2.



UNITED STATES PATENT OFFICE.

JONATHAN JESSOP, JOHN WANBAUGH, GEO. W. ILGENFRITZ, AND JAMES C. BAKER, OF YORK, PENNSYLVANIA.

MACHINE FOR CUTTING AND GRINDING FODDER.

Specification of Letters Patent No. 4,391, dated February 20, 1846.

To all whom it may concern:

Be it known that we, J. JESSOP, J. WANBAUGH, G. W. ILGENFRITZ, and JAMES C. BAKER, of York, in the county of York and State of Pennsylvania, have invented a new and useful Improvement in Machines for Cutting and Grinding Fodder, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known, and of the manner of constructing and using the same, referennce being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of the machine, and Fig. 2, a longitudinal vertical section.

The same letters refer to like parts in all the figures.

The nature of our improvement consists in the manner of arranging the hopper and cylindrical grinders of a combined machine for cutting and grinding fodder, to prevent the mill from choking, a defect long since experienced and not removed in any of the machines heretofore made for this purpose, with which we are acquainted.

In machines heretofore made for this purpose, the grinding cylinders are so placed as to receive the fodder from the cutters between the two cylinders, when two are used, or between the cylinder and concave, when only one cylinder is employed; but to prevent the choking of the mill, which frequently occurs in these arrangements, we discharge the fodder from the cutters into a hopper back of the main grinding cylinder, and in which it revolves, so that by its revolution, the teeth of the cylinder carry up and around, to be ground between it and the second grinding cylinder, the required quantity of fodder, so that the grinding is fed by the main grinding cylinder instead of the cutting machine.

The accompanying drawings represent a machine similar to what is known as the cylinder straw-cutter, (*b*) is what is termed the cylinder, which consists of two cutters or knives (*a' a'*) attached to heads (*b*), at each end, on a shaft, operated by a crank handle, or a band from a first mover, and provided with a fly wheel (*c*) at one end, and a cog wheel (*d*) at the other. These cutters act on the fodder as it is moved forward over the bed cutter (*e*), by an endless belt (*f*) passing over rollers (*g*, *g'*), the latter having a ratchet wheel (*h*), on one end of its arbor, and a long toothed cog-wheel (*i*) on the other, a small portion of which only is shown which meshes into a similar cog wheel (*l*), to communicate motion to the pressure roller (*k*) as in straw cutters; the ratchet wheel (*h*) being put in motion by means of a hand (*m*), jointed to a lever (*n*), which is moved up and down at every revolution of the cutting cylinder by a pin (*o*) on the face of the wheel (*d*).

The main grinding cylinder (*p*) is situated under, and parallel with the cutting cylinder, so that the cut fodder falls back of the center of the grinding cylinder; and the hopper *s*, which consists simply of two end, and one back piece, is so situated that the cut fodder cannot pass between it and the cylinder, so that the periphery of the main cylinder passes through the hopper and in its revolution carries up the fodder which is then ground between it and a smaller grinding cylinder (*q*), placed in front and moving with greater velocity than it, the main cylinder.

Motion is communicated from the cutting cylinder to the main grinding cylinder, by the cog wheels (*d*) and (*t*), and from the main cylinder (*p*) to the second grinding cylinder (*q*) by the cog-wheel (*t*), and pinion (*u*) on the second grinding roller.

We do not claim as our invention the combination of grinding cylinders with a cutting machine, for cutting and grinding fodder; but

What we do claim as our invention, and desire to secure by Letters Patent, is—

The arrangement of the hopper back of the main grinding cylinder in a combined machine for cutting and grinding fodder, so arranged as to cause the main grinding cylinder to take the fodder from the hopper, into which it is discharged by the cutters, and carry it around to be ground, or crushed between the two, substantially as herein described.

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Witnesses:
ADAM KRABEL,
JOHN CREMER.