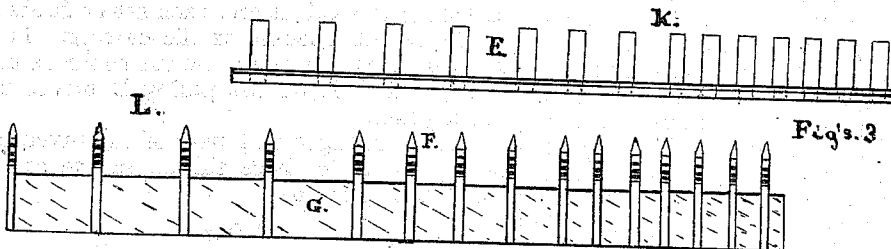
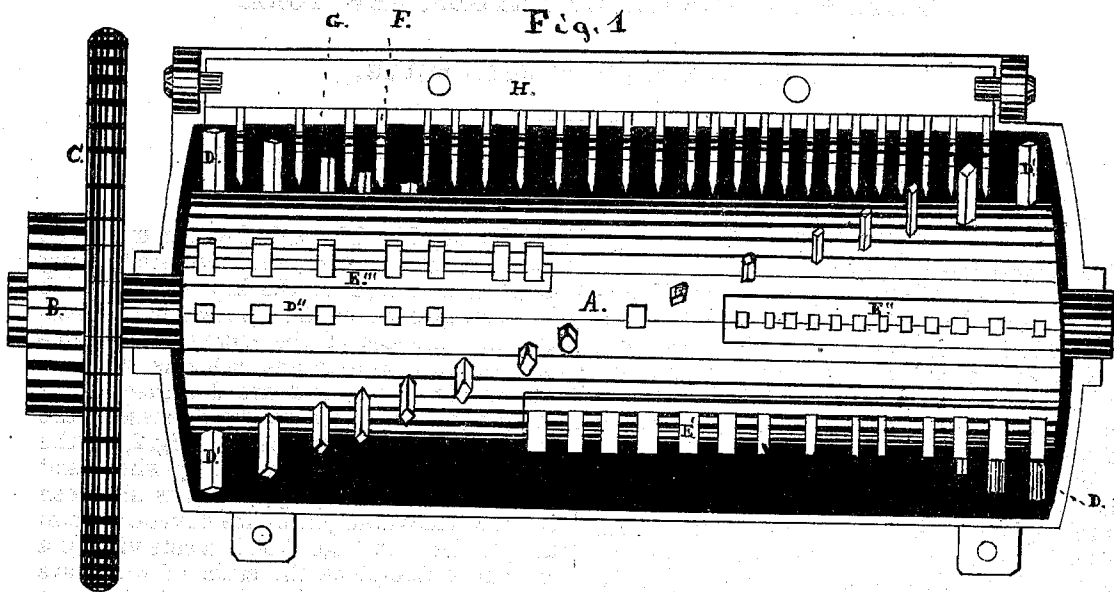


G. W. GIBSON.
Improvement in Feed-Mills.

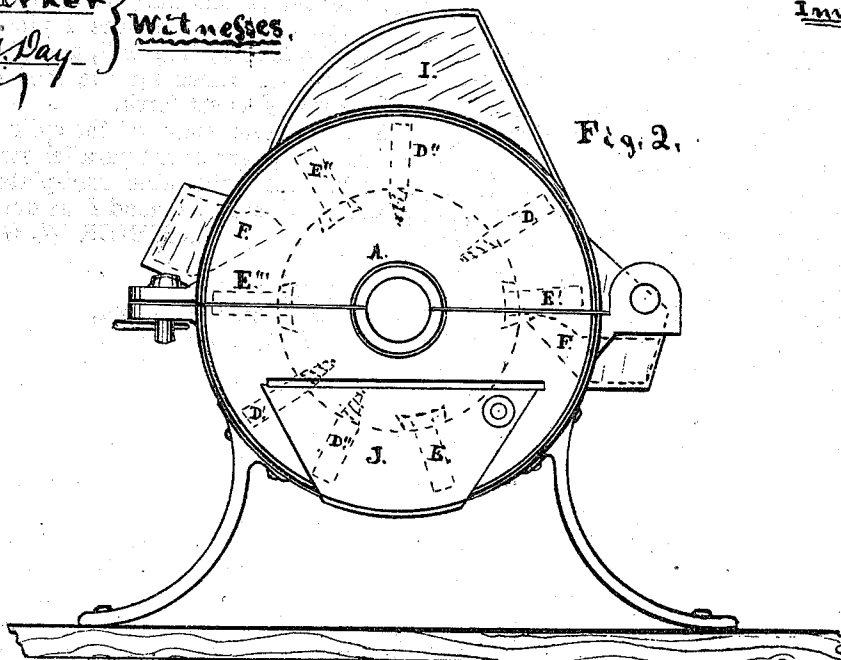
No. 126,883.

Patented May 21, 1872.



G. J. Parker }
Chas. Day } Witnesses.

Gardner W. Gibson
Inventor.



UNITED STATES PATENT OFFICE.

GARDNER W. GIBSON, OF DRYDEN, NEW YORK.

IMPROVEMENT IN FEED-MILLS.

Specification forming part of Letters Patent No. 126,883, dated May 21, 1872.

SPECIFICATION.

To all whom it may concern:

I, GARDNER W. GIBSON, of Dryden, Tompkins county, New York, have invented an Improved Mill or Machine for Cutting Hay and Straw, with or without the addition of grain to the same, but with distinct reference to the cutting of the grain as well as hay or straw, of which the following is a specification:

My object is to make a power-driven mill that will easily and rapidly cut and comminute hay, straw, cornstalks, or other articles of such nature, to a fine mealy state, and to use it without, if I choose, but mainly with, the corn, oats, wheat, or other grains, cutting and commingling and comminuting the grains or grain to a mealy state by the studs and knives of the machine, and not by the action of any millstone-grinding, thus making a very finely-pulverized feed of the articles named, for general use and sale, by my mill. Of course it will need power and rapid speed to do this, and the use by hand will be somewhat less available. My invention consists mainly in the construction of stud-plates with adjustability to the cylinder, the entrance and exit of the machine, and the combined use of the various parts I shall name, so that the result shall be a cutting-mill.

Figure 1 is a view of my cutting-mill, the upper half of the boxing being removed. Fig. 2 is an end view. Figs. 3 are detached views of the changeable knives and stud-plates.

In Fig. 1, A is the stud-cylinder, moved by the belt-wheel B, having the fly-wheel C, two permanent sets of spirally-arranged studs, D and D', sets of permanent studs D'' set parallel to the axis of the cylinder, and one or more plates E' E'', changeable at pleasure, on which are set studs also parallel to the axis of the cylinder. The knives F are fast to the boxing, and variable by the blocks G, and

held by cap H. The spiral studs move the feed along as cut; the permanent studs bring the grain and feed to the knives. The size and arrangement of the removable studs secure the fineness of the cutting. The discharge-gate also aids and controls the fineness of the result, and are designed, when acting together, to secure the fineness of the cut to any desirable degree. In Fig. 2, I is the entrance cap or hood, near the fly-wheel, and J the exit or discharge gate. It is also seen that the removable plates are dovetailed into the cylinder. In Figs. 3, K is a side view of a removable stud-plate, the studs of which are made square, flat, or other shapes, and are set so fitting the knives and each set of studs as to secure the fineness of the cutting. They are varied with each article cut as far as necessary. A belt on the pulley B drives my cutting-mill.

The advantages and uses of my invention are apparent to those skilled in the art to which it appertains.

Claims.

1. The removable plates E' E'' E''', adjustable to the cylinder A, when arranged and constructed and used in combination with the cylinder A, substantially as set forth.

2. The hood or entrance I placed on the top of the feed-cutting mill, and giving a regulated side entrance for the feed or fodder, substantially as set forth.

3. The combination of the cylinder A, spiral studs D, permanent parallel studs D'', removable and adjustable stud-plates E, exit-gate J, and entrance-hood I, as described.

GARDNER W. GIBSON.

Witnesses:

SAMUEL J. PARKER,
CHS. G. DAY.