(12) **United States Patent**
Skinner et al.

(10) **Patent No.: X9381**
(45) **Date of Patent: Feb. 10, 1836**

(54) **STRAW CUTTER**

(76) Inventors: **Chauncey D. Skinner; Dana Read**

Chauncey D. Shimes & Dana Read.

Letters Patent.

The schedule referred to in these Letters Patent, and making part of the same, containing a description in the words of the said Chauncey D. Shimes and Dana Read themselves of their improvement in the Machine for cutting straw and other substances.

To all To whom these presents shall come: Be it known that we Chauncey D. Shimes, of Haddam in the County of Middlesex and State of Connecticut, and Dana Read of Middletown in said County, have invented a new and useful improvement in Machinery for cutting straw, hay, stalks of maize, and similar substances and that the following is a full and exact description of the construction and operation of the said Machine as invented or improved by us. A frame of any suitable work is made by setting up two end pieces of plank each two feet nine inches high and one inch & one half of an inch thick at the distance of five feet and seven inches from each other in the clear. These end pieces are each one foot wide at the bottom, and continue of that width to within about seven inches from the top, where they are formed with a gradual increase of width in front; the top of the end piece on the right being one foot and four inches wide, and the top of the end piece on the left being one foot and three inches wider. This latter end piece for the sake of firmness is made by working into a foot two feet long, three inches wide, and three inches thick. The end pieces are connected together on the back side by five girths one about five inches from the bottom and the other even with the top, each about five inches wide and one inch and one fourth of an inch thick, and well secured by nails or screws. The end pieces are connected in front by a similar girth secured in the like manner first below the point where the width

width of the end-pieces begins to increase upon the frame thus constructed is set a wooden feeding box or trough, let down one inch into the end pieces and laid even with the front. This trough is three feet four inches long open on the top and at both ends is one inches wide in the clear at the right end, and diminishing gradually in width to the left end which is five inches wide. The depth of the trough is one inches at the wider end, and decreases gradually towards the other end which is four inches deep. At the smaller end of this trough a piece of board six inches long and one inch thick is fitted (by means of pivots or wooden pins) as a cap or lying horizontally even with the top, when the trough is full and capable of being readily depressed with the hand as the flour or other substance diminishes, for the purpose of shedding it fast. The trough is so laid that it projects beyond the left end piece only so as to clear it. At the distance of eight inches in the clear from the left end piece, a scoop girth passes under the trough to which it is and is fastened by screws, and the shank is turned in to the back top girth of the frame, into this girth and the left end piece, a square iron rod and shaft three fourths of an inch in diameter and forty two inches long with a screw of six inches, is set at the distance of about four inches from the back of the trough in such a manner that the bottom of the trough is even a level with the shaft which remains loose and passes with iron. The end of the shaft extends beyond the left end piece of the frame three inches and one fourth of an inch, and is fixed into a wheel made of oak wood two feet six inches in diameter and three inches thick. To secure this wheel from wearing a piece of board four inches wide and three fourths of an inch thick is dovetailed into the outer rim or circle passing through the diameter or rather to a certain angle in the wood of which the wheel is composed. A pitman of large iron wire is attached to the end of the board. The lower end of the pitman is secured in an ingenious manner to the upper side of a wooden treadle two feet long, which extends horizontally from the

the lower back girth of the frame, and is fastened thereto by a common hinge joint. The wheel being set in motion by the foot acting upon the treadle revolves towards the front. A knife nine inches long and one eighth of an inch thick at the back with its edge turned towards the trough is set on the inner area of the wheel, parallel with the axle resting at the ends upon small iron blocks to which it is screwed, and which are themselves screwed to the wheel in such a manner and position that when the axle of the crank being raised vertically is just upon the point of descending, the edge of the knife is nearly level with the top of the trough, each of the blocks on which the knife rests is five eighths of an inch thick; and the knife in revolving is thus brought into contact with a plate of steel or iron placed at the side of the trough and on the bottom thereof so as to form a sort of shears for cutting the straw or other substance in the trough. The side of the knife next the trough is straight and is bevelled on the other side. The edge of the knife is somewhat curved inwards. The periphery of the wheel is covered with leather rasped with emery for sharpening the knife; and to this end a small lever accompanies the machine so that the knife may be taken off and put on at pleasure. It is obvious also that the wheel may be used for sharpening other tools. The machine is operated by one person who keeps the wheel in motion with his feet while he supplies the trough with the straw or other substance to be cut, and adjusts it with his hands. The motion may be produced if desirable, by any other mechanical power. The machine above described is of the dimensions which are usually made; but the dimensions and proportions may evidently be increased or diminished to suit the convenience of the operator. The advantages of the machine are that it is portable, simple in its construction, not liable to get out of order, and capable of being repaired with small expense and trouble. We do not claim as our invention or improvement any one of the parts of the said machine separately considered, but we do claim as our invention and improvement the combination of the various parts

of

of the said Machine as above described in the said manner, whereby to produce the effect of cutting straw, hay, stalks of maize and like substances with ease and rapidity.

Dated at Middletown this 31st day of December A.D. 1835

Witnesses
Townsend Hay
Jonathan Barnes

Chauncey D. Skinner
Dana Read

1313 wds

EC
CSW.