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Cope

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(54) **STRAW CUTTER**

(76) Inventor: **John W. Cope**

United States Patent

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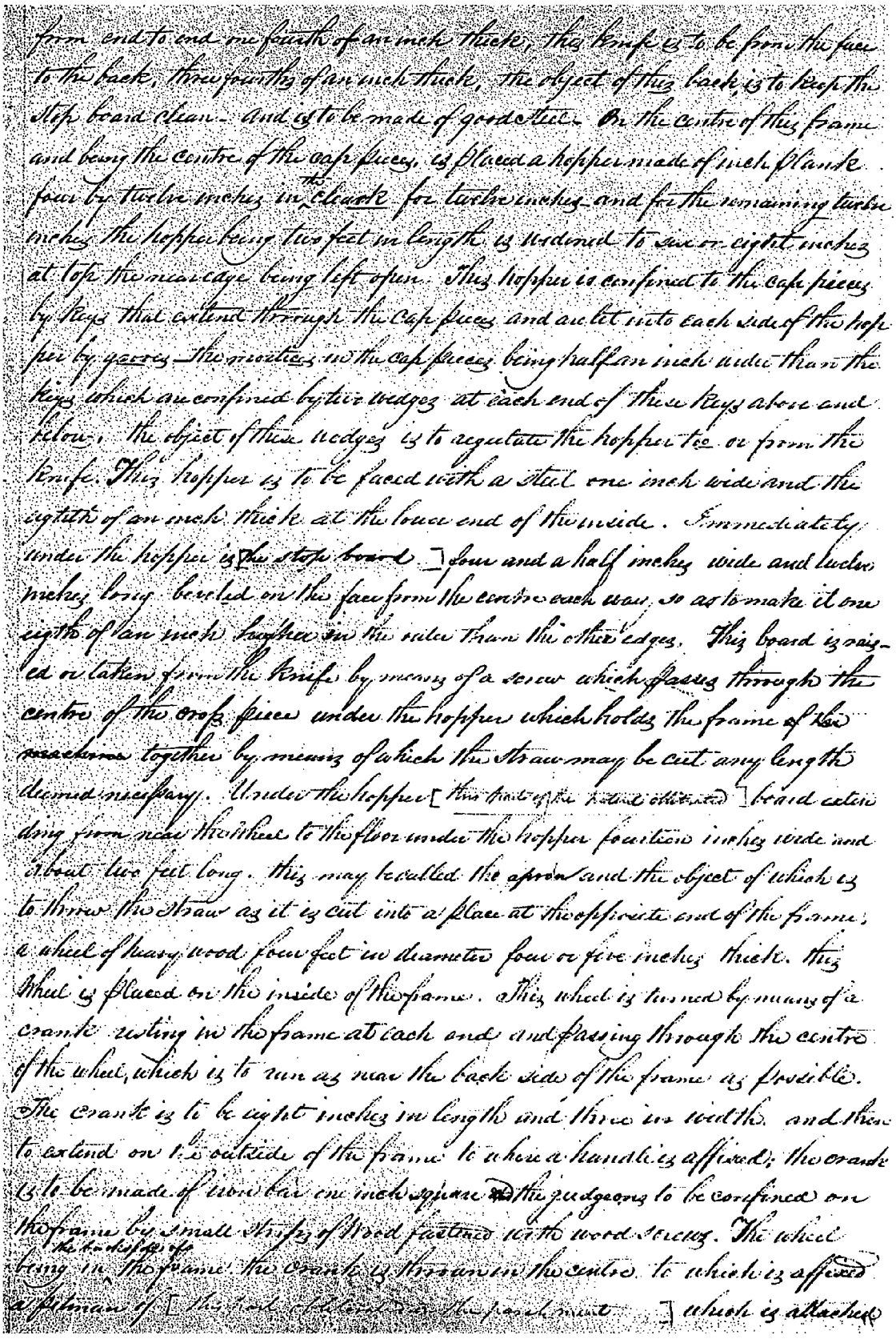
John W. Cope Franklin Tenn.

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 John W. Cope himself of his improvement in the Straw cutting machine

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To all to whom these presents shall come. Be it known that I John W. Cope of the County of Franklin and State of Tennessee, have invented a new and useful improvement in the Straw cutting machine, and that the following is a full and exact description of the construction and operation of the said machine as invented by me. The frame is constructed of timbers seven feet three inches in length, four by six inches in width and thickness and supported by four legs of timber of the same size. This frame is three feet high and twenty two inches wide from outside to out side and fourteen inches in the clear. The frame is confined together by a piece of timber of the same size let on tenons cut on the side pieces of the frame by mortises in each end of this end piece and at the other end by a piece of timber four inches square and extends through each side piece by tenons. At one end of this frame is placed upon each rail cap pieces two feet four inches long, four by six inches, these caps are confined to each rail of the frame by five iron or wooden bolts. These caps and the side pieces of the frame are rabbeted for three feet three inches one inch on each of the side rails and an inch in each of the caps. This forms a groove for a frame upon which the knife is placed, this groove extends to the end of the frame. In this groove is placed a frame five feet four inches in length and sixteen inches in width, constructed of timber two inches square. The knife which is placed upon this frame is five and a quarter inches wide, half an inch thick at the centre. The upper side is to be perfectly true tapering from the centre on the under side each way to an edge. This knife is placed across the centre of this frame diagonally at the angle of forty five degrees and is fastened at each to the frame by iron bolts or screws. The knife may be made as above described with a back in the centre



from end to end one fourth of an inch thick, this knife is to be from the face to the back, three fourths of an inch thick, the object of this back is to keep the stop board clean. And is to be made of good steel. In the centre of this frame and being the centre of the cap pieces, is placed a hopper made of inch plank four by twelve inches in the clear for twelve inches and for the remaining twelve inches the hopper being two feet in length is ordered to have eight inches at top the near edge being left open. This hopper is confined to the cap pieces by keys that extend through the cap pieces and are let into each side of the hopper by grooves the mortices in the cap pieces being half an inch wider than the keys which are confined by tite wedges at each end of these keys above and below. The object of these wedges is to regulate the hopper to or from the knife. This hopper is to be faced with a steel one inch wide and the eighth of an inch thick at the lower end of the inside. Immediately under the hopper is the stop board] four and a half inches wide and twelve inches long beveled on the face from the centre each way so as to make it one eighth of an inch higher in the centre than the other edges. This board is raised or taken from the knife by means of a screw which passing through the centre of the cross piece under the hopper which holds the frame of the machine together by means of which the straw may be cut any length deemed necessary. Under the hopper [this finishes the frame attached] board extending from near the wheel to the floor under the hopper fourteen inches wide and about two feet long. This may be called the apron and the object of which is to throw the straw as it is cut into a place at the opposite end of the frame; a wheel of heavy wood four feet in diameter four or five inches thick. This wheel is placed on the inside of the frame. This wheel is turned by means of a crank resting in the frame at each end and passing through the centre of the wheel, which is to run as near the back side of the frame as possible. The crank is to be eight inches in length and three in width and these to extend on the outside of the frame to where a handle is affixed; the crank is to be made of iron bar one inch square the gudgeons to be confined on the frame by small straps of steel fastened with wood screws. The wheel being in the frame the crank is thrown in the centre to which is affixed a pitman of [this rod fastened in the manner] which is attached

by a kind of hinge to the centres of the knife frame.
This may be denominated a horizontal straw cutting machine. The knife having two edges cut both ways at every revolution of the wheel the straw having sufficient weight to force it down against the stop board.

Witness
James Robinson
John Goodwin

John H. Cope.

(10 Sheets)

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CHW.

(Re. 1st June 1837 & Reenrolled anew)