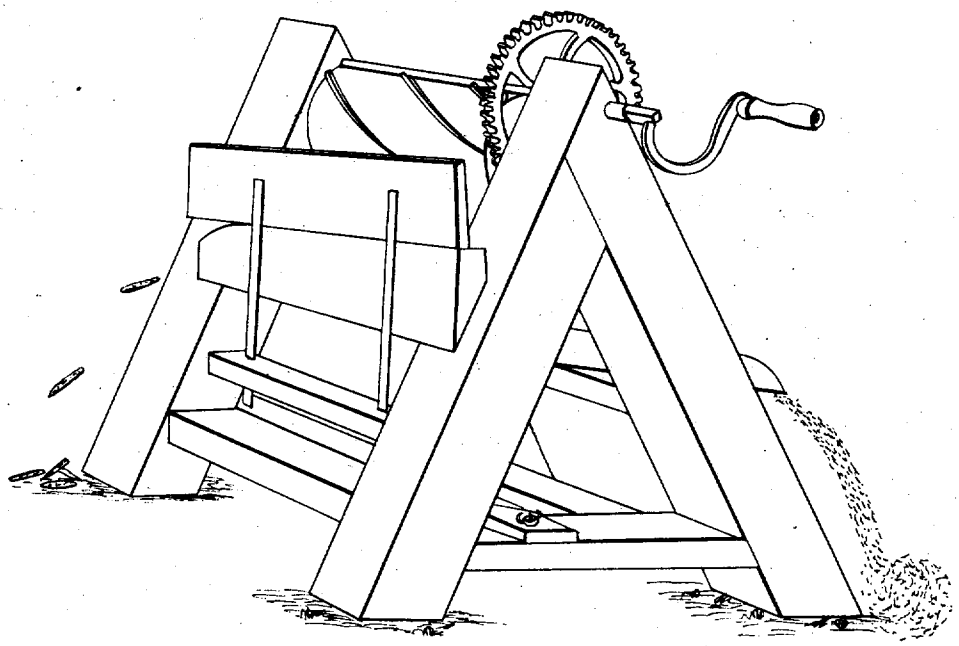
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PARKER & SMITH.

Corn Sheller.

2 Sheets—Sheet 1.

Patented April 9, 1831.



N. PETERS. Photo-Lithographer. Washington, D. C.

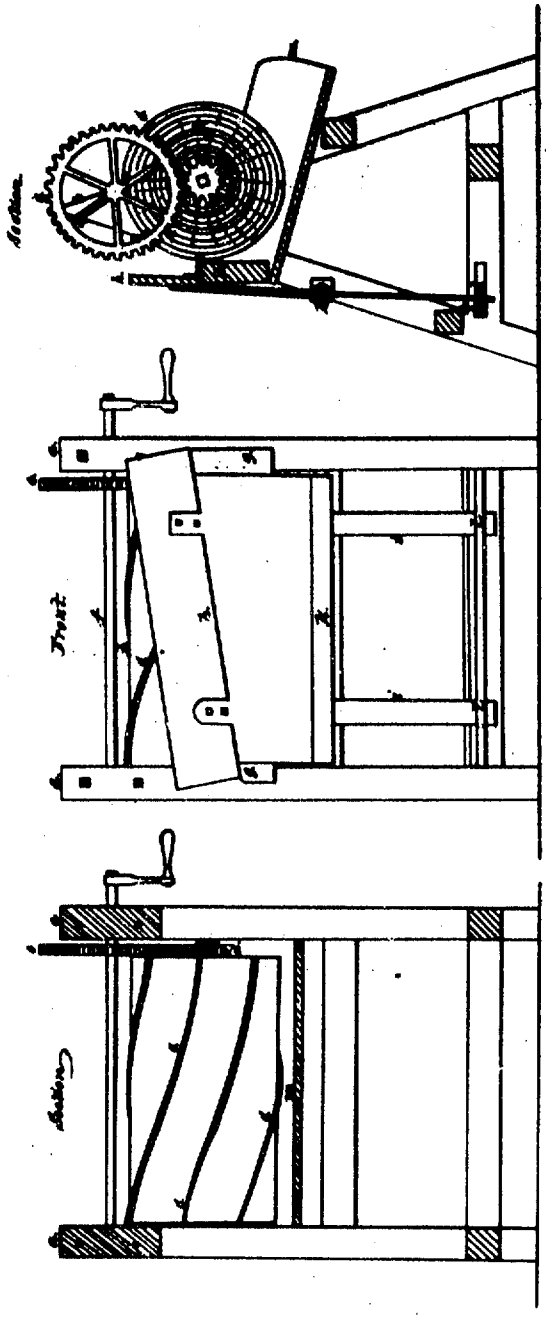
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2 Sheets—Sheet 2.

PARKER & SMITH.

Corn Sheller.

Patented April 9, 1831.



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Sabey Parker & Hiram M. Smith

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 Sabey Parker and Hiram M. Smith themselves of their improvement in the Machine for Shelling Corn

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To All To Whom These Presents Shall Come Be it known that we Sabey Parker and Hiram M. Smith of the City of Richmond and State of Virginia have invented new and useful improvements in a Machine for Shelling Corn 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. This Machine consists of a frame, a cylinder, gear wheels, a hopper a spout, crank &c. The frame is two feet 5 inches long and 2 feet 4 inches wide at its feet. It consists of four posts 3 feet 6 inches long 3 inches square and of five girths framed together in the following manner Two posts at each end of the machine are placed together in a triangle form they are halved together at the top and come to a point and fastened together by bolts and nuts, the feet spread two feet four inches & forming a complete brace, Each of these two posts have a cross girth three inches square tenoned through them three inches from their feet and are secured by pins. These two end frames are connected together by three girths 2 feet 2½ inches long exclusive of tenons & 3 inches square. one of which is tenoned into the left hand posts on the bottom side 5½ inches from their feet and immediately above the cross girths one other is tenoned into the cross girths three inches from the right hand posts and the other one is tenoned into the right hand posts one foot four inches from their feet which girths are secured by pins or bed screws. Two feet 5½ inches from the feet and one foot from the top in the centre of the right hand posts, is the cylinder shaft upon which the cylinder is hung. which shaft is of wrought iron and is 2 feet 7½ inches long and ⅞ of an inch square, it has bearings turned at each end

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end 2½ inches long. On the crank end of this shaft a may be put on either end is a spur pinion 4 inches in diameter and one inch thick with a back projecting half an inch which pinion has 15 cogs and is fitted fair upon the shaft and square with the end of the cylinder, and the hub drawn with the shoulder of the bearing. The cylinder is two feet long & 13 inches in diameter at each end. it is gradually diminished in the centre one eighth of an inch or sufficient to bring it when hung at equal distance from end to end from the ledger in its declining position with the side of the cylinder. The cylinder is made of a solid stick of oak or other seasoned hard wood or of seasoned oak or other hard wood plank and staves 1½ inch thick. When made of plank and staves, the heads are of five thicknesses with their grains reversed to prevent splitting and are nailed or screwed together. These heads are fitted firmly upon the shaft at their proper places and are then turned upon the shaft to such size as with the thickness of the staves will make the sized cylinder wanted. The staves are three or four inches wide, their edges are jointed bevelling like barrel staves their ends be flowed and fitted upon the heads and are placed close together and nailed or screwed firm to the heads. The cylinder is then turned in a lathe or on its destined place to make to the size and dimensions before stated. Eight iron plates or ribs are placed spirally and at equal distance from each other upon the cylinder, extending from end to end with their thick edges to the left or towards the hopper and are made fast to the cylinder by screws or nails. These rods are half an inch wide and 3/8 or ½ of an inch thick on one edge and half that thickness on the other edge, and two inches of their feet ends are bent to the right or towards their thin edge forming a knee, the ends being turned one inch from the straight line of the rod. To find where to place these rods upon the cylinder make a dot at the crank end of the cylinder from which strike a diagonal line to within ½ inch of the other end and from thence measure back to the right upon the surface 9½ inches and make another dot and place the end of the plate or rod upon the first dot and the knee upon the 2nd and secure it there and the other ends are placed in the

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the same direction of the first and at equal distances from each other, Seven and a quarter inches above the cylinder shaft and over the upper or outer edge of the right hand posts is the crank shaft which is of round or square wrought iron 3/4 or 7/8 of an inch in diameter and has a bearing turned at the foot end 1½ inch long and one on the crank end three inches long; it passes through the post and has a crank upon the end; it is secured to the posts by caps and screws one half of the diameter of the shaft being let into the posts and the other half into the caps. Upon this shaft immediately over the pinion on the cylinder shaft is a spur wheel 12 inches in diameter and one inch thick in rim and 1½ inch at hub. It has 45 cogs which gear into the pinion by which, and the crank on the end of this shaft the machine is put in operation, and which gives the cylinder three evolutions to one of the crank. Upon the outside of the left hand posts at the side of the cylinder is a ledger, the bottom of which runs parallel with the cylinder and the top is square and planed with iron and forms the bottom of the hopper. This ledger is two inches thick and 6 inches wide at the crank end and 3 inches wide at the other end, making a descent from one end to the other of 3 inches. It is let into the posts 1 foot 11½ inches from their feet so as to stand erect on edge and the top within 3/8 of an inch of the ribs upon the cylinder, and the crank end half an inch above, and the other end two and a half inches below the centre of the cylinder and is then made fast to the posts by screws or nails. The foot end of the ledger below the end of the cylinder is sloped, and with the posts is hollowed out so as to give free passage to the cobs. Immediately above the ledger and running parallel with it is a board of nearly the same length of the hopper, the upper end being square and its foot extending the length of the cylinder. This board is 6 inches wide and one inch thick and stands nearly erect on edge a little leaning to the cylinder and two inches of the inside bottom of it is plated with iron and with the ledger forms the hopper. It is then let upon two perpendicular wood springs, just high enough for its bottom to clear the top of the ledger. The springs are fastened

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fifteen inches apart, the upper one is grooved into and the other one is nailed or screwed to the outside back of the hopper. The springs are two feet long 2 inches wide and half an inch thick and snap those a revolving gritle placed in their centre and have a thin ledger nailed to their back which rests upon the revolving stay gritle supporting the hopper at its proper height and the feet of the springs entering Mortises in a slide gritle which rests upon the two cross girths. The revolving stay gritle is 2 inches square and is grooved into the centre of the left hand posts 1 foot 5 inches from their feet by round grooves in which it turns to accommodate the movement and swing of the hopper. The slide gritle is 1½ inch wide and 1 inch thick and has a hole at each end which fingers through oblong Mortises in the cross girths and through said slide gritle with nuts upon the top by which it is screwed to the cross girths whenever wanted. and by sliding this gritle which governs the feet of the hopper springs the hopper swings upon the revolving stay gritle and is enlarged or diminished to suit any sized cam and is there secured by said bolts and nuts. The spout which conveys off the corn as shelled is made of boards half an inch thick, it is 1 foot 8 inches long and 2 feet 2 inches wide. The upper end of the bottom of the spout is nailed to the bottom of the ledger and the lower end rests upon and is nailed to the right hand gritle its sides are six inches high and are nailed to the bottom. the upper ends fitting to the ledger. The operator turns the crank with his right hand and fills the cam with the hopper with his left, and the springs of the hopper bear them to the cylinder, while the iron ribs upon it strike them, turn them swiftly round, shell them, and force the cobs out at the foot of the hopper, with great rapidity and the corn discharged off by the spout to it's left. The great improvements made in this machine for which we claim an exclusive right as original inventors, consists 1st in giving it and applying a crank to an extra good shaft immediately over the cylinder by which the speed of the cylinder is increased three fold and may be more and its movements rendered so as to press the hopper upon the

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the opposite side of the cylinder from what has heretofore been done and convenient to the operators left hand. thereby enabling him to turn the machine with his right hand and feed with his left which saves the labor of a second person to feed as heretofore requires. 2nd in applying the revolving girth as a stay to the center of the hopper springs, and a side girth. bolts and nuts to the feet of said springs by which they have double the length of spring and the hopper is varied to suit any size ear of corn with much more ease and in one quarter of the time required to do it by means of the cylinder by means of wedges as heretofore done. 3rd in bending the ends of the iron ribs placed upon the cylinder by which means the cobs are forcibly thrown clear from the machine. and 4th in making the frame, in an easy simple triangle form, thereby making it a firm substantial brace to itself. By these improvements the machine is made for about the same expense of the former kind and is more substantial and durable and less liable to get out of order and is easier managed, will do the work better, and about three times as fast & with only half the labor. =

In testimony that the foregoing is a true specification of said corn shelling machine we have hereunto set our hands and seals this 25th day of February 1831

Witnesses
Geo W. Banks
Granville D. Allen

Sabin Parker
Hiram M. Smith

(2100 Words)

Recorded April 9. 1831