(12) **United States Patent**
Baker

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(54) **PRESS, COTTON & HAY, &C.**

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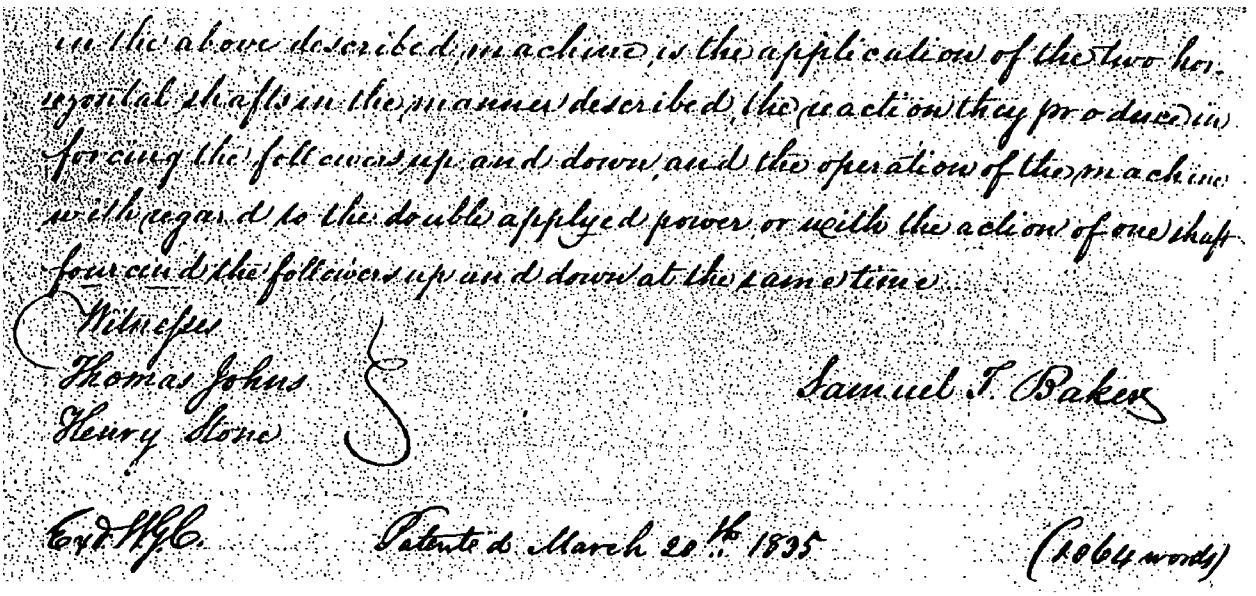
and useful Machine for compressing Hay, Cotton, Hops, Cider and all other compressible commodities and that the following is a full and exact description thereof.

(The foundation of the press consists of two sills of about six feet in length six inches square or any convenient bigness. to these sills are framed four posts or plank in an upright position sufficiently apart as to admit or correspond with box and of any convenient length so as to agree with the height of the box extending about fifteen inches above the same. The box may be made in any convenient manner so as to apply to the commodity to be pressed or of about eight or nine feet in length or height three feet eight inches in width and two feet and one half deep. To the sills are framed two pieces of joist about five feet and half long in a horizontal manner connecting the sills to which the lower part of the box is secured at each side. Above these and on each side are three pieces of the same dimensions and at a proper distance from each other the ends extending through the post and made fast to the same and enclose the box at both sides. Inside of the posts and within eight or ten inches of the same are framed four pieces of joist of about the same bigness two feet and half long inside the shoulder and are framed into the aforementioned joist and enclosing or hooping the box. The box is so constructed as to admit of two followers at the same time one forcing down & the other up. The doors are in centre of the box on both sides. The doors might be hung at the side of the box and secured by iron or wooden bars and hinges. The box has four slips or slides two at each end so as admit of the foundation of the lower follower to pass up and down. The followers are drawn up and down at the same time by means of ropes or chains that are attached to two horizontal shafts. These shafts extends through the upper part of the posts in such a manner as to leave the top of the box clear when the up- or follower is turned out. The two horizontal shafts produce a reaction when set in motion and are capable of producing double the power that they otherwise would and destroy the friction. Likewise to the ends of these shafts are fixed cogwheels of about two feet & in diameter or large

or smaller as the case may require outside of posts, these two cog-wheels match into a pinion that is fast to another wheel, and this wheel matching into another short shaft on which is a pinion this shaft being set in motion by the large wheel on the side, one end of this lower shaft passes through a perpendicular post, that is secured at the bottom by a side sill, or a small sill that is attached to one of the lower sills, at the top is a piece framed in crossway, and secured at each end by the ends of the shafts running through and are secured by pins the lower shaft and the cog or shaft of the pinion that matches into the short shaft, the outward ends of the same pass through a fifth post, and the other ends turn in pieces that are framed across the posts. The upper follower is constructed by framing four pistons upon the follower at or near the corners of the same across the tops of these pistons are fixed two pieces of joist of sufficient strength, and extending sufficiently over the shafts so as to receive the ropes or chains in a perpendicular position, to one of these shafts is attached a rope or chain and extending to the follower, and winding the reverse to the other rope or chains brings the follower back, and when it is at or near the top of the box, the ropes or chains being slipped off from one side, the follower is turned out of the way without trouble. This machine can be made to work with cogs, applying them at both sides of the pistons or slides to draw down or they may be applyed to pistons that are or may be attached to the lower follower, and draw up and down at the same time or separately with rollers at the back part of the slides. Or to increase the power there may be the same wheels and pinions attached to the other side or ends of the shafts, and in this way give double the power or they may be at the end of one shaft one way, and at the other end the other. The cog wheels and pinions to be either of iron or wood.

A machine constructed with the two fold power or the reaction of the one follower upon the other arising from the operation of the one upon the other with ropes, cogs or chains, can be made one of the most powerful engines of compression without injury to the machinery.

What I claim as my own invention, and not previously known



in the above described machine, is the application of the two horizontal shafts in the manner described, the reaction they produce in forcing the followers up and down, and the operation of the machine with regard to the double applyed power or with the action of one shaft four cuts & the followers up and down at the same time.

Witnesses
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