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Newton

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(54) **CLAPBOARDS, MACHINE**

(76) Inventor: **Daniel Newton**

Daniel. Newton
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 Daniel Newton himself of his improvement in the construction of a Clapboard Machine.

To all to whom these presents shall come: . . . Be it known that I Daniel Newton of Colton in the County of Coos & State of Newhampshire have invented a new & useful improvement in the construction of a Clapboard Machine; & the following is a full & exact description of the construction & operation of the said Machine as invented or improved by me. . . . . First, a frame is made 20 feet long & 5 feet wide; the timbers of the frame about 7 or 8 inches square & the legs one foot in length. The legs of the forward end of said machine (that is the end towards which the saw is to be put on to the end of the timbers of the frame & come about 6 inches above the frame for the carriage to strike against when it runs back. . . On the side opposite to the saw & prejected to the timber of the frame is a board 14 feet in length, & about 6 inches in width, the side upwards. . . At the forward end of this board on the side of the leg is perfixed two small pieces of timber one inch & thick, 7 inches long & two inches wide, hanging by an iron or wooden pin passing thro' 2½ inches from the top of them, & the weight of them below the pin, being the greatest, will keep them perpendicular; the top of them must come as high as the top of the carriage & about 12 inch between them . . . On the top of this board to the end of it in a line against the center of these small pieces of timber, hanging perpendicularly is a piece of timber 2½ inches at the forward end 1½ inch at the other end long & inch thick at the widest end, beginning at the middle of the thickness on each side a line is drawn straight to the center where it meets at the distance of about 9 inches; the wood must be taken off to these lines; & from the point where these two lines meet the remainder of the stick, one & a half inch in width, the narrow end of this stick must be made nearly in the same form, beginning on the sides as above directed & running to the center where they meet about six inches from the end & between these two points, the timber is only ¾ the thickness it is at the ends. This is hung by a pin passing thro' it & the board on which it lays at the distance of 9 inches from the widest end. . . . On the frame or platform before described running the whole length thereof & on the middle of the timbers are pieces of cast iron ¾ of an inch thick ex-

the under side ¾ of an inch wide & running almost to an edge on the upper side with small bars across on the under side 3 inches long, within 3 feet of each other thro' which screws are put to hold the iron on to the timbers. . . On this platform is a carriage 13 feet long & is made in the following manners. The sides & ends are to be timbers about 5 inches square, they may be blocked together by cutting joints each, about 6 inches from the ends of the side pieces & beginning on the end of the cross pieces, which are next to the sand & from the end of the cross pieces on the other side must be left about 6 inches projecting over from the side; into which is cut at each end of the carriage two grooves 1 inch & ¼ wide, ¾ of an inch deep, & into these grooves are placed two pieces of timber about one inch & a quarter square & 13 feet long, placed in such a form that they will come regular against those pikers of timber hanging perpendicular at the forward end of the carriage. At the hindermost end of the carriage on the under side of the 6 inches which projects over of the cross piece & in the centre of the same, is prefixed the end of a timber about 1¼ inch thick 2¼ wide & the length must be exactly to reach when the carriage is run back against the forward end of those small pieces of timber which hang perpendicular at the forward end of the carriage against which the end of it sticks the lower end of them alternately by drawing over the piece of timber on the board at the forward end of the carriage. On each end of the carriage prefixed to the cross pieces about 10 inches from the side opposite to the sand is a post bolted on the end of the carriage, & about 4 inches square; on these two posts is hung a shaft about 15 feet long which must be straight exactly & ought to be turned: this shaft ought to be at least 3 inches in diameter. On this shaft over the center of the cross pieces at each end of the carriage is a wheel of cast iron about 10 inches in diameter completely encircled with cogs: between these wheels on the side of the shaft opposite to the sand are suspended two weights supposed to weigh about 2 cwt each, they must be as near the ends of the shaft as they can to prevent springing it. . . On the forward end of the shaft is a crank which by turning the head block is drawn back under these two cast iron wheels, two pieces of cast iron are prepared which are called gauges, they must be about 2 feet long 1 inch wide & ¾ thick with notches on the side & cogs on the top, which mesh into those in the shaft over them & the carriage these gauges next to the sand are fastened to the head block, a piece of timber about 2½ feet long & three inches square. . . Under this head block are two pieces of timber about 3 inches by 5 which run square across the carriage, which are let down into the side pieces of the carriage about an inch, the piece of timber, which is to the hindermost end of the carriage is to be about one foot from the next piece of the end, the other is about 3 feet from this towards the forward end of the carriage; on the end of these timbers next to the sand & about 3 feet in length must be placed small rounds of cast iron or pieces of polished iron or steel; this is what the plank lays on while drawing into ship boards & it is very important to have it move as easy as possible.

On the head block are two dogs, one fastened nearly to the end of it in the near part of the carriage, & the other is in a mortise 6 feet long & ½ of an inch wide, so that it can be moved to saw from 8 to 12 feet; on one end of these dogs is a screw & a nut thereon. . . On the side of the carriage, next to the saws & under the cross-pieces about 7 inches is pieces of cast iron to the length of 11 feet which is called the rack & which must be completely fastened to the carriage. . . This rack ought to be about 1 inch square including the cogs, with which it is to be lined on the under side. The gauges of which one end is fastened to the head block, lay on the center of the cross pieces at each end of the carriage, exactly under the wheels of cast iron on the shaft which meshes into them & the cogs on the wheels & gauges must correspond exactly with each other. . . The notches on the side of the gauges are 1 inch & ½ of an inch long & these two pieces of timber which are on the 6 inches that projects over the carriage have grooves cut into them ½ of an inch deep, thro which the gauges' cogs & one side is cut standing in such a manner that they will fay into the notches of the gauges. . At the forward end of the carriage & to these two pieces of timber on the under side of each, is attached a wire spring one end of it is fastened to them, & the other to the cross piece of the carriage which springs keep them in the notches of the gauges. . . On the inside of these two pieces of timber at each end of each one is prefixed a spring made of large wire or steel for the purpose of moving these timbers into the next notch of the gauges alternately. These two pieces of timber hanging perpendicular at the forward end of the carriage, the board on the side of the frame the piece of timber on the board, the piece attached to the hindermost end of the carriage which draws over the piece on the board & these two pieces with 2 springs prefixed to them, are on the same principle exactly of Earl's Patent on a Shingle Machine with this one exception, there is an addition of 4 springs, which moves them alternately into the next notch of the gauges. . . On the side & into frame on which the carriage runs & about 14 feet in length & beginning about 10 feet from the forward end of the carriage is a frame about 20 inches wide on which is hung 2 circular saws about 32 inches in diameter is large enough to be profitable: one hangs in a perpendicular form & the other inclining on the side ½ of an inch, to every 6 inches of the diameter of the saw; the shafts or arbors on which circular saws are hung are too well known to need a description, the collars on these shafts ought to be about 8 inches in diameter. These two saws hang in the following position, one is directly forward of the other, excepting it is moved by the other ½ an inch, which is the hindermost one & they must be ¼ an inch apart at the top of the collars & the tip of the ..... saw before described will bring them ½ of an inch apart, 6 inches above the collars; which will leave the clapboard ½ of an inch in thickness; or both saws may hang perpendicular one, ½ inch by the other & saw both edges

of a thickness by having another pair of gauges to put in on account of its taking more time to saw both edges of a thickness. On the outside of each saw near the hindermost edge is a piece of iron or steel to which when the end of the clapboard comes it springs it off from the saw to prevent their shearing the one for the forward saw must be equally behind it & near to the edge of it. . . The pulleys on these shafts, to which the saws are hung, must not be as equally forward of the other but by the other a little more, than the width of one to prevent the belts which are around the pulleys from interfering with each other. . . These belts are to be around the pulleys & around a drum underneath the floor on which the Machine stands which drum is turned by water or some other power & puts the machine in operation . . . Near the forward end of this small frame on which the saws hang is a shaft of wrought iron which passes thro' the same & just under the pieces of iron on which the carriage runs. . . On the end of this shaft is a cast iron wheel about 4 inch in diameter, which meshes into the rack, & and by which the carriage is drawn up; around this end of the shaft is a spring which would be glad to keep the cogs on this small wheel out of place on the rack; but this end of the shaft, every time the carriage runs back is raised ¼ of an inch by a loop of iron or steel in the hindermost end of the carriage, which comes under the spring around the shaft & raises it on to a notch in a piece of iron, where it remains until it is moved off the same; which operation is performed by one or more pieces of iron fastened to the carriage & fixed in such a manner that they will move it off the notch when either of them comes against it; these pieces of iron may be hung in the center on a pin to alter from one side of them to the other so that any one of them may be used at any time according to the length of the plank which is sawing; there ought to be 5 beginning at 8 & ending at 12 feet. . . Near the other end of this shaft which moves the carriage is a wheel of cast iron about 10 inches in diameter & encircled with cogs into which a small wheel of cast iron meshes 4 inch in diameter, which turns it round & thereby moves the carriage; this small wheel is on a shaft about ¾ of an inch square, & on the other end of the shaft is a pulley around which there is a band from a pulley on the shaft on which the forward saw is hung & by the saw turning the whole machine is put in operation. . . In the center of the rack piece at the hindermost end of the carriage is fastened a rope which round the pulley may to the forward end of the carriage, and goes thro the floor over a trundle at the end of which a weight is tied of suitable heft to run the carriage back & it may be run back by cranking. . .

Witnesses James Walker
Henry Bacon

Daniel Newton

(2510 words)