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Moore

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(54) **WASHING MACHINE, & SCOURING, &C.**

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Cannon Moore of the County of Guilford . N. Carolina.

Letters Patent.

The schedule aforesaid is in these Letters Patent and making part of the same containing a description in the words of the said Cannon Moore himself of his improvement in the rolling washing Machine for washing Clothes, wool and scouring leather,

To all to whom these presents shall come,

Be it known that I Cannon Moore of the County of Guilford & State of North Carolina, have invented a new and useful improvement in a machine for washing Clothes wool & scouring leather with various other domestic purposes, and that the following is a full and exact description of the construction & operation of the said machine as invented by me,

These machines are made with 2 or 3 rollers as the case may require the small machines for family washing, are made with 2 heads to each roller as following, take inch boards or plank cross and nail them together (where good firm plank 2 inches thick can be had they may be made of one piece) round them to 13½ inches diameter; make a central mortice 2 inches square, to receive an axle of heavy locust 2 inches square shouldered & 16 inches the whole length.

Take a strip of paper, measure round the head of the roller, lay the paper off into 28 steps with the compassey, then post the paper round the head of the roller, and mark through the steps for lagging on the staves.

Staves should be sawed 2 inches wide 1½ inch thick and dressed down to 1½ inch face, & ⅜ inch for the inner edge, 16 inches long shouldered at each end ⅜ inch to nail on the heads when they were laid off & marked, they must be bored or countersunk then nailed on the heads in a bias form one roller leaning bias to the right the other to the left to prevent their touching by pitching on the staves bias, the ends are higher than the middle they must be taken off with a jointer to bring them level,

Lengthen out off the ends of the staves with a sharp file smooth and a

little rounding, to prevent chafing the clothes. There must be a 1/2 inch hole bored in the centre in each end of the axles to receive an iron gudgeon 4 inches long made in the form of a spike all but one inch, this made round and smooth to receive the coupling box which are two pcs of iron exactly of a length with a hole in each, and near long enough to allow the rollers to turn entirely free of each other, They must be bored out in the middle to prevent their coming off, or rubbing the heads of the rollers. If handles are used instead of the crank they are made like plough handles, only less thinner and lighter with 2 rounds to hold them in place. & on the inside of the lower ends a flat piece of iron 6 inches long put on with screws with a hole at the lower ends, to go on the gudgeon over the coupling box,

The rollers now done which are the first things to be made and the back box, To be made to receive the rollers without rubbing.

The boards or plank should all be good timber (pine) and without sap & when dressed out of the dimensions specified. Where a wooden bottom is intended, the water bed is first to be made, this side plank must be one inch thick and 7 inches wide and long enough to allow the straight parts of the bottom to be 4 feet 8 inches long. The ends of the side plank are planted out boat fashion to an angle of about 45 degrees the thickest edge down the bottom and ends of good inch plank fast across making the water bed or box wide enough, to allow the rollers 3/4 inch play between the sides of the water bed, The bottom must be nailed with 8d. nails in a zig zag form to prevent splitting the plank. Dress off the ends of the bottom even with the side plank, & put on a neat and well fitted moulding on each side, nailing it to the ends of the bottom & to the side plank, then a border plank 3/4 inch thick & 2 inches wide, is to be put on the outside of the water bed with 2 1/2 inch cap, the ends square with a similar plank. 4 iron clamps at each end one at each corner, upon the border and also on the water bed, Then put a short moulding over the clamps.

The light frame to support the counter bottom is made of two pieces of good strong wood 1 inch thick 1 1/2 inch wide 1 as long as the inside of the principal bottom. There must be a round notch in the middle of the upper edge 1 inch wide & 3/4 inch deep after it is fixed with short screws, place the

from the notch they must be slanted to each end leaving the ends not more than ¾ inch thick 6 inches each side of the notch in both must be a small mortice to allow 2 pieces of elastic wood with a tenon at each end long enough to go thro' to the sides and leave the long notched piece 2 inches from the sides and the tenons fastened in with 4d nails

The counter bottom is made of lath the length of the principal bottom ¾ inch thick and 1½ wide one side bevelled from the centre on both sides to an edge with the upper side, they are to be nailed in the middle with 4d nails (the bevelled side down) ¾ of an inch apart to 2 pieces of strong wood, as long as the box is wide 1 inch thick 1½ wide put flat side down rounded near the ends and covered with iron to turn in the notches of the end pieces.

At each end on the upper side, must be a piece of thin iron wood; drive the nails thro' the laths and clinch them in these pieces to prevent the handy from injuring the clothes, lay the frame in the wash box, and see that all fits well and that the counter bottom plays freely up and down without either end or side touching the box on the under side, at one end must be a piece of plank, nailed on & a hole bored thro' both to draw off the water, — Where metal bottoms are required the bottom is the first thing to be made if the sheet be 6 feet long by 1 foot 10 inches wide, draw two straight lines 17 inches apart from one end to the other, allowing 2½ inches each side to turn up, Then at one end cut along each of the lines 3½ inches exactly of a length, now measure from the step of the cut along the lines 4 feet 8 inches, and cut the lines out, from that measure, draw a line to an angle of 45 degrees from the step of each cut, to the edge towards each corner, The sides and ends must be punched half an inch from the edge in a zig zag form that the rivets may not split the plank, in riveting — The sides from the cut to the square lines, must be turned up square, that the ends of the bottom when raised may come in between the sides, now turn up the sides, square with the lines, where the ends of the bottom are to be riveted to the sides, the bottom parts can be punched before they are turned up & the ends of the sides punched thro' the holes, These metal bottoms are used as boilers & set in an arch or furnace, the end that stands over the mouth of the furnace, has the metal

go to the top & that part of the side that laps round the end must be counter sunk this end to strengthen the end of the bottom. There must be a square hole made at the back end of the bottom, 2 inches long by 1 inch wide & draw off the water. Then there must be a plate of metal made to fit the bottom at the time, cover the hole, and punched & the hole marked & cut out to fit that in the bottom. Then a socket about 2 inches long fitted and brazed to this plate and riveted on.

Rags are the best stoppers the water bed is kept the plank must be large inch thick & the width enough to make 8 inches from the bottom to the top of the water bed. There must be a shallow rabbet taken out of this plank, where the metal is put on & should be flagged between.

Now the border plank is to be put on, this plank is ¾ inch thick and 8 inches wide & lapped on the water bed 2½ inches.

This plank is square ended. now when the height of the box is known, there must be a piece of metal riveted on the top of the furnace end, and long enough to turn at each side to be riveted to the border plank, for a support to the end, instead of a clamp, the other end must have a clamp on it.

Where the cost of the metal bottom is thought too great a substitute can be made of almost equal value with half the cost, by having a box made as for a wooden bottom, put on a piece or two of plank at each end of the bottom, then have a sheet of iron 2 feet square punched on every edge ready for nailing; lay the sheet in the middle of the box & mark it on each side to fit the water bed, then turn up the sides and fit it to its place, & nail it to the water bed on the end side: then put on the plank from the ends to the metal: the piece that comes on the metal must have a shallow rabbet the thickness of the metal, then flag between them turn the box up and nail the metal to the wood inside. Then must stand over the furnace and answer well for boilers. Let it be observed that if iron, a sheet 6 feet long & 2 feet wide not weighing 30 lb. is to this for bottoms & boilers.

All iron bottoms when done using must be dried & then every part rubbed over with a greasy cloth, and the wood taken out & put by dryly. The remainder of the machine not described with the metal bottom is the same as specified with the wooden bottom. When machines are making

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make according to what they are intended to perform. there is wood iron & copper bottom smaller or larger from 6 feet 8 inches in the bottom with 2 rollers, 6 feet or more, with 3 rollers 8 feet in diameter or more if required.

In washing leather, wool, & other purposes, these large machines are worked altogether by the power of a sweep - which is the invented plan for all these washing machines to operate upon, handles accordingly put to them to render them portable & for immediate trial of their performance,

Instead of handles, there are bounds to couple the rollers to the sword of the sweep, these bounds should be made of tough spungy wood for small machines 5 feet long 3 inches wide and ¾ inch thick, cut in suitable shape by heat with a similar iron on the lower ends, as is described for the handles a hole thro the upper ends, between which the sword comes, & a pin of wood goes thro the sword and bounds & fastened,

There must be a round post thro the bounds before the rollers to keep them in proper place, The sweep for working the machine is simple & easy made.

Have two rails 9 or 10 feet long, for a wooden bottom, one to be put on each side of the wash box, and rails cut in 3 or 6 feet long, near one end of each long rails set in a post 6 feet long 6 inches down from the top, made an open mortise an inch or more wide in each post, to receive a gudgeon from each end of the beam which must be as long as the posts are apart at top, this beam may be 6 inches square, with a mortise near one end, 3 inches long 1½ inches wide to receive a tenon on a piece of wood as heavy as one of the rollers. this weight must be tapering 2 feet long the longest end, cut 2 feet from the other end of the beam, make a mortise 1½ inch square, at right angle with the first mortise, The square mortise is to hold a sword 5 feet long 3 inches wide & 1½ inch thick of tough strong wood with several holes bored thro it near the lower end, to shorten or lengthen the arm of the rollers,

Between the sword & the end of the beam make another mortise of the same size as the one for the sword, this mortise is to be in the same square with the first, to hold a staff 6 or 7 feet long to work the sweep by.

Now set the wash box across some plank or rails near the long ends of the rails, having screwed the bounds and fastened them & the sword having a

rope fastened to the end of the staff, put the rope which goes round the rollers & one whether the box stands at a right distance from the sweep, if the rollers strike the further end of the box move it back, if it strikes both ends move the bounds, higher up the sweep, & fix something at a proper distance for the staff to counter upon,

Where the sweep is fixed to boilers the sides are not wanting to go by the sides of the wash box & therefore may be shorter.

Observe that the ballance weight to the beam returns the rollers freely over the clothes if not add more weight to the end of it. The principle that induced the invention was to lighten labor & lessen friction.

Method of using the boiler. Put the water in the boiler make it as warm as for common washing by hand, then put or spread in a reasonable quantity of clothes, after soaping them sufficiently in the needful parts; now start the rollers over them, but mind to keep the fire down, so as not to boil the water till the clothes are thought fit for boiling, then raise or increase the fire, & if preferred put in lye, and boil, keeping the rollers going & when they are sufficiently boiled they will be clean & fit for rinsing. Take them out & put in more, temper the water to a right heat, lower the fire, & proceed as before until the strength of the suds is exhausted; fill the box or put in a sufficient quantity of cold water and proceed to rinse in the same manner, they were washed,

The wooden bottoms require the first process, then taken out & boiled in the ordinary way, in a pot or kettle & then put back under the rollers for rinsing.

By this method may be washed from the finest lace or tenderest muslin, without friction or injury, to the coarsest cloth, sacks, or carpets.

Witness,
L. Stephens.
W. W. Tyler.

Canon Moore

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