J. C. RALSTON.

Soap-Slabbing Machine.

No. 166,891. Patented Aug. 17, 1875.

Fig. 1.

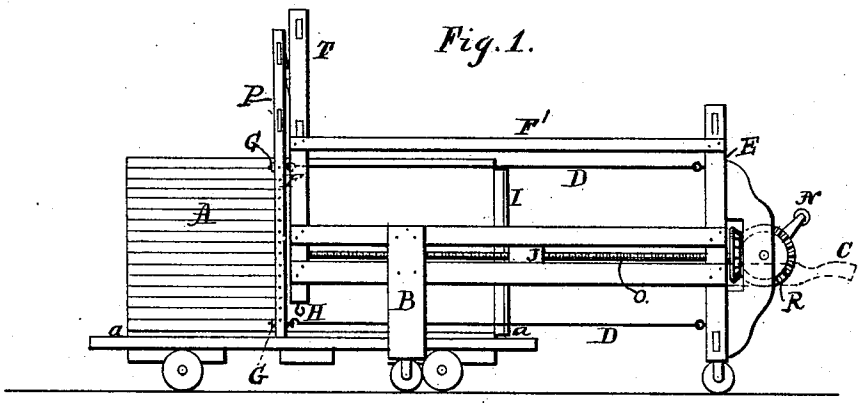


Fig. 2.

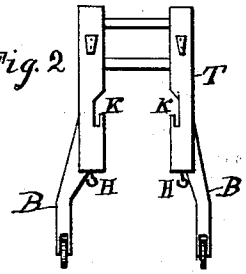


Fig. 3.

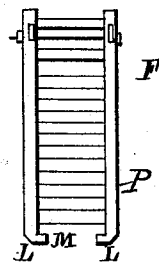
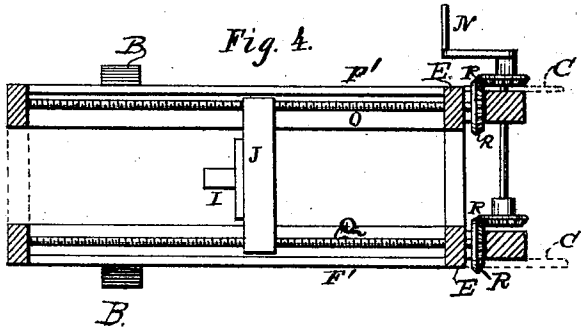


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE

JOHN C. RALSTON, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN SOAP-SLABBING MACHINES.

Specification forming part of Letters Patent No. **166,891**, dated August 17, 1875; application filed May 31, 1875.

To all whom it may concern:

Be it known that I, JOHN CLEMENTS RALSTON, of the city of Indianapolis, Marion county, and State of Indiana, have invented a new and valuable improvement, to wit, a Soap-Slabding Machine, or a machine for cutting into slabs the solid blocks of soap into which the article is molded when placed to cool by the soap-manufacturer; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the annexed drawing is a side elevation of my newly-invented soap-slabbing machine, showing it in process of cutting the frame of soap A into slabs.

The machine consists of a strong frame of wood, F', of the form indicated by the drawing, mounted on wheels, and of sufficient size to pass freely over the block of soap it is intended to cut into slabs. The front portion T of the machine is elevated, for the purpose of having two rails therein, and thereby gaining sufficient strength to allow of the lower portion of the front being left open, so that the machine can be moved over the block of soap without obstruction. The front legs of the machine, B, Fig. 1, are set back about one-fourth the entire length of the machine, for convenience in turning when operated by the handles C. D D, Fig. 1, are iron rods, which run the entire length of the machine horizontally, and are made secure to the back posts E by screw-eyes, in which they fit loosely and can move freely, with an upward or downward motion at the front end of said rods. At F, a hook is formed on each for the purpose of engaging in the screw-eyes G of the cutter P. H, Figs. 1 and 2, are hooks for supporting the lower rods D when not engaged in cutting. I is the follower, which presses against the soap when the machine is in operation, and is driven by the horizontal bar J, Figs. 1 and 4.

Fig. 2 is a front elevation, and shows the form of front legs of the machine, which are made extended, so as to allow them to pass freely any obstruction, such as wheels on the soap-frame bottom, &c. Fig. 2 also shows an opening cut in the front posts at the point K, the object of which is to allow of the passage of the upper rods D to the cutter, and also to support the rods D when not engaged with the cutter P.

Fig. 3 is a front view of the cutter, which is simply a wooden frame, with two rails near the top, and strongly bolted between said rails, sufficient height being allowed below the lower rail to permit of its passing freely over the highest block of soap it is required to cut. The ends L are plated with iron to prevent wear, and two projections, M, are formed on the insides, which projections are for the purpose of resting against the false bottom of the soap-frame, *a a*, Fig. 1, and thereby preventing the strain of cutting from causing the lower portion of the sides of the cutter to scrape or tear the soap. The usual cutting-wires are inserted in kerfs sawn in the cutter, and fastened by pegs, or in any convenient and well-known manner.

I make no provision for changing the wires fro n one size of slab to another. As this form of cutter is so cheaply made, I recommend one for each size it is desired to cut.

Fig. 4 is a plan of the machine, and shows the manner in which the power is applied.

The operation of the machine is as follows: The cutter being disengaged, and the iron rods D D resting in the hooks H, Fig. 1, and K, Fig. 2, the machine is driven over the block of soap. The cutter is then placed in front, with its ends resting on the soap-frame bottom. The iron rods D are hooked in the screw-eyes G of the cutter, and the machine is ready for work. By turning the crank N the screws O Q are actuated by the gearing R. By this means the horizontal bar J is caused to move, pressing the follower I against the soap, and driving it through the wires of the cutter; or if, which is still more convenient, the wheels of the soap-frame be blocked so that it will not move, the machine itself moves backward, bringing the cutter with it through the block of soap. To repeat the operation it is only necessary to disengage the cutter, place the rods D in their respective hooks, and turn back the horizontal bar J.

The advantages of this machine are, its simplicity of construction, and, consequently, low

cost; its movable cutter, which saves the labor of lifting a heavy cutter over the block of soap at every operation; its power of cutting on any height of frame bottom without changing the machine, obtained by the free movement upward and downward of the four horizontal iron rods D, Fig. 1, which allow the cutter to rise or fall, so as to suit itself to any height of frame bottom, yet still keeping the cutter perpendicular.

I do not claim, broadly, an attachable and detachable cutter-frame, an open-ended frame so made that the machine will pass over the block of soap to be cut, or driving the cutter-frame by machinery; but

What I claim as new, and wish to protect by Letters Patent, is—

1. The attachable and detachable cutter-frame G, constructed as described, and held in place by iron rods D D, as and for the purpose herein shown.

2. The combination and arrangement of screw-rods O Q, gearing R R, cross-bar J, follower I, cutter-frame G, and connecting-rods D, with a suitable frame, F′, operating substantially as and for the purpose herein set forth.

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Witnesses:

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