J. C. RALSTON.

Attachment to Soap-Cutting Machines

No. 167,936. Patented Sept. 21, 1875.

Fig. 1

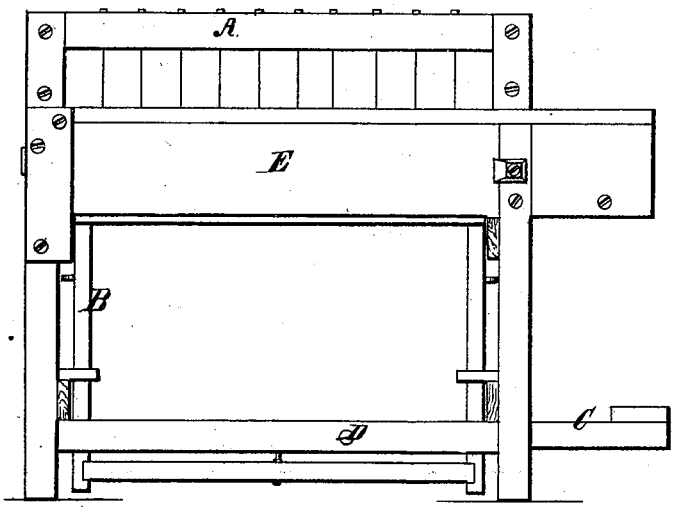


Fig. 2

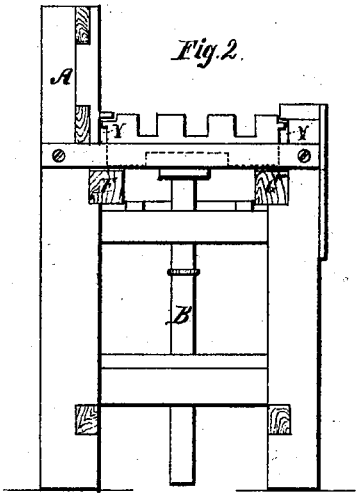


Fig. 3

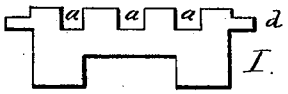


Fig. 4

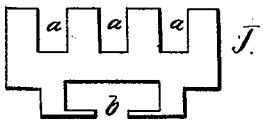


Fig. 5

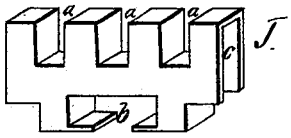


Fig. 6

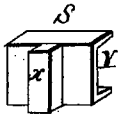
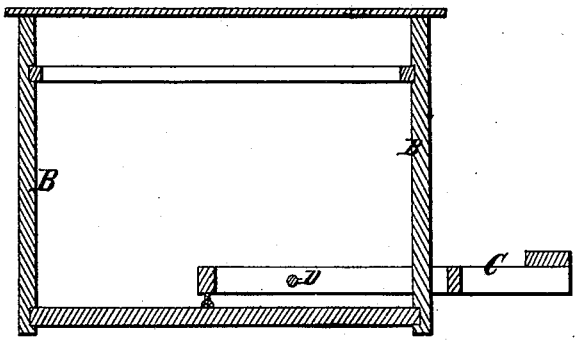


Fig. 7



Witnesses.

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JOHN C. RALSTON, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN ATTACHMENTS TO SOAP-CUTTING MACHINES.

Specification forming part of Letters Patent No. **167,936**, dated September 21, 1875; application filed June 10, 1875.

To all whom it may concern:

Be it known that I, JOHN CLEMENTS RALSTON, of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Soap-Cutting Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to that class of soap-cutting machines which cut a full slab into bars at one operation; and the nature of my invention consists in the construction and arrangement of an attachment for such machines for racking and spreading the bars, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a side elevation, and Fig. 2 an end view, of my attachment for soap-cutting machines. Figs. 3, 4, 5, 6, and 7 are detached views of parts thereof.

H represents a strong wooden frame of any suitable dimensions, the upper surface of which is level with the cutting-frame A of the soap-cutting machine. Within the frame H is placed a movable frame, B, a longitudinal vertical section of which is shown in Fig. 7. This movable frame receives an upward movement by the operator pressing with his foot on the outer end of a lever-treadle, C, pivoted at D to the main frame, and its inner end connected to the movable frame. The front of the main frame H has a movable panel, E, for convenience in changing the spreaders hereinafter described. In the inner sides of the side bars F G of the main frame are longitudinal grooves *y* to receive a series of blocks, I J, which rest therein, said blocks corresponding in number with the bars of soap contained in the slab which is being cut.

The blocks mentioned are made of two sizes, I and J, placed alternately in the grooved bars F G. The blocks I are made shallow, as shown in Fig. 3, and have end projections, *d*, fitting under the upper shoulders of the grooves *y* to prevent said blocks from rising. The center of the blocks I on the under side is cut out to allow the center bar of the movable frame B to enter therein when raised.

The blocks J, shown in Figs. 4 and 5, are made deeper, without end projections, and have lips *b* on their under sides fitting around and under the center bar of the movable frame B. The object of this arrangement is that, as the bars of soap usually adhere after being passed through the cutting-wires, and more especially if very fine wire has been used, by pressing with the foot on the treadle C the movable frame B is raised and carries the deep block J upward with it, thus raising up every alternate bar of soap, and effecting a complete separation of the adhering bars. After the soap has been thus duly separated, by removing the foot from the treadle the blocks descend by their own gravity, or by being pulled down by the action of the movable frame on the lips *b*. In the blocks I J are sunk grooves or recesses *a* to receive the rack upon which the soap is placed or driven by the cutting-machine. In the ends of each block is a vertical groove, *c*, to receive the tenon *x* of the spreader S, shown in Fig. 6. One of these spreaders is inserted in each end of each block, and they are permanently connected by means of a band or strong tape fastened to the back of each and in the groove *y*, care being taken to allow as much space between the spreaders when fastening them to the tape as it is required that the bars of soap shall be separated when spread upon the rack. The blocks I J are placed closely together and the rack inserted in the grooves *a a*. The soap is then driven upon the blocks through the cutting-wires, and rests above the rack. The operator presses on the treadle C, which separates the bars, and a pull at the tape which connects the spreaders separates the blocks, and with them the soap the entire length of the machine, thus spreading the soap effectively, and with a single motion, after which it is removed in the usual manner.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a series of alternately stationary and movable blocks for separating

adhering bars of soap, substantially as herein set forth.

2. The combination of the stationary blocks I and movable blocks J, arranged alternately, and a movable or sliding frame, B, for operating the movable blocks, substantially as and for the purposes herein set forth.

3. The blocks I, grooved and cut as described, and provided with the end projections *d*, in combination with the grooved bars F G of the main frame, for the purposes herein set forth.

4. The blocks J, grooved as described, and provided with lips *b*, in combination with the sliding frame B and grooved bars F G, for the purposes herein set forth.

5. The combination of the series of blocks I J, arranged as described, and a series of spreaders, S, connected together and fitting in the grooved bars F G and end grooves of the block, substantially as and for the purposes herein set forth.

JOHN C. RALSTON.

Witnesses:
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