

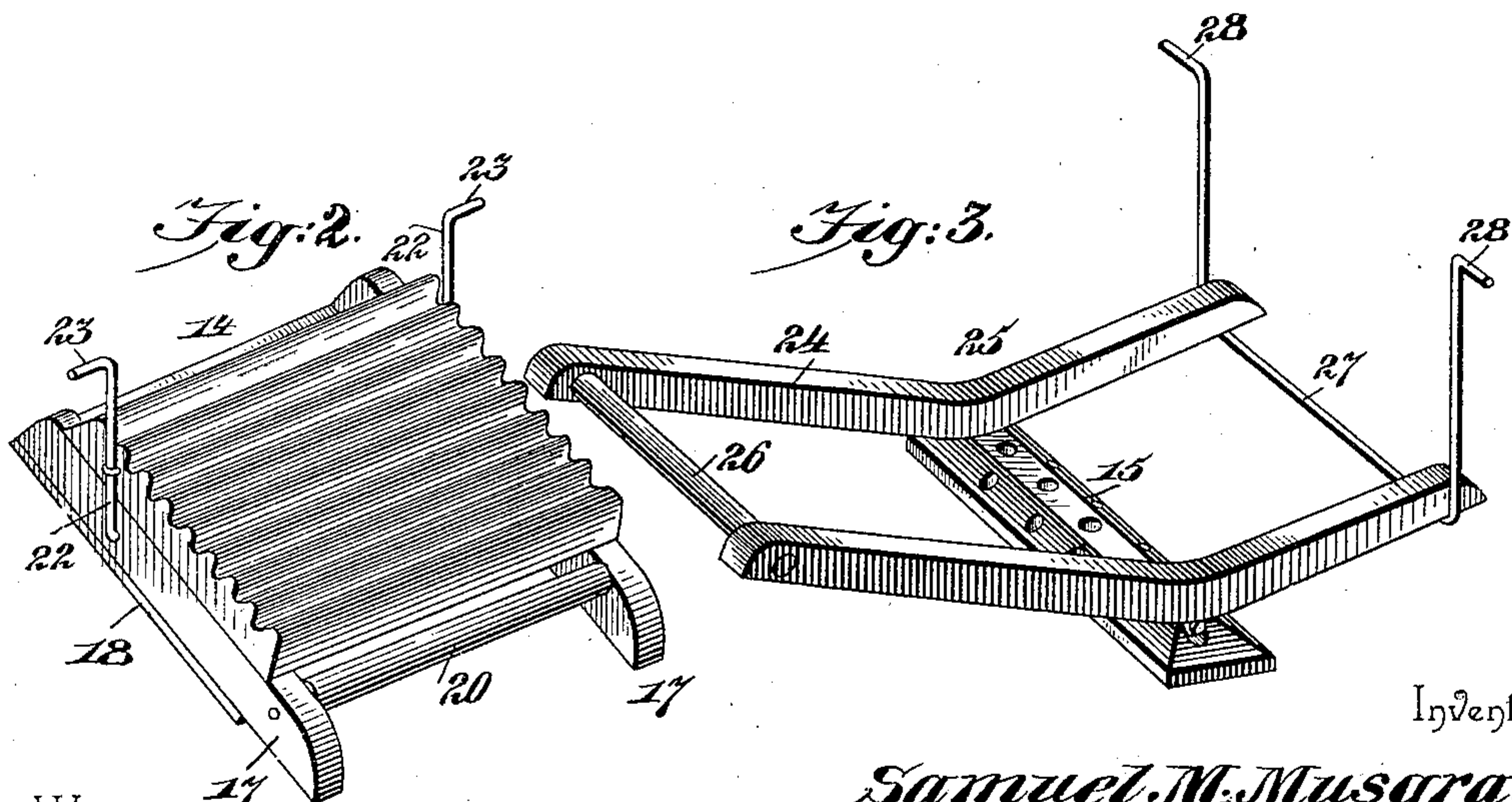
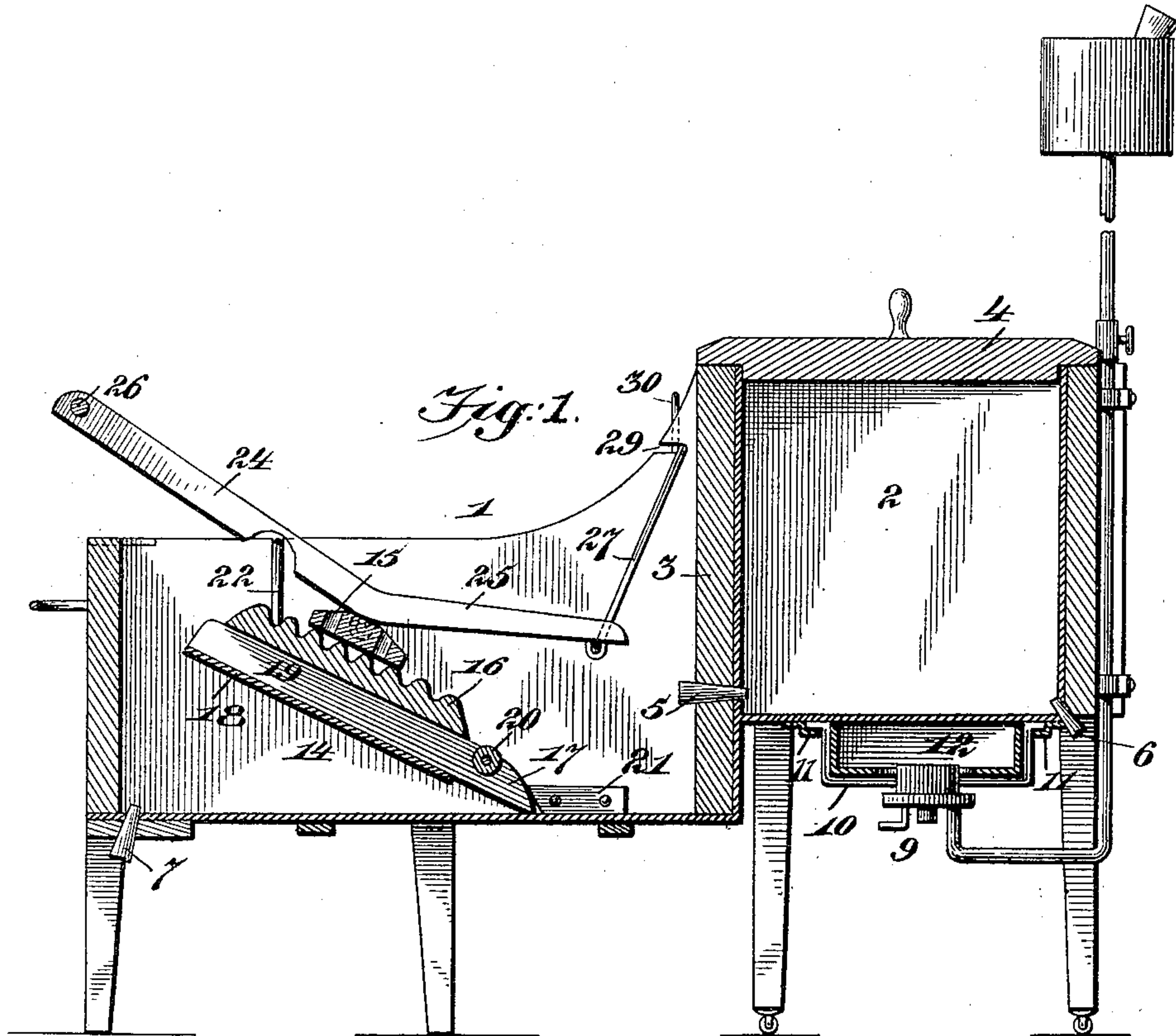
No. 611,701.

Patented Oct. 4, 1898.

S. M. MUSGRAVE.
WASHING MACHINE.

(Application filed June 28, 1897.)

(No Model.)



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL MATERSON MUSGRAVE, OF BELLS, TENNESSEE, ASSIGNOR OF
ONE-HALF TO B. W. BROWN, OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 611,701, dated October 4, 1898.

Application filed June 28, 1897. Serial No. 642,695. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL MATERSON MUSGRAVE, a citizen of the United States, residing at Bells, in the county of Crockett and State of Tennessee, have invented a new and useful Washing-Machine, of which the following is a specification.

The invention relates to improvements in washing-machines.

10 The object of the present invention is to improve the construction of washing-machines and to provide a simple and comparatively inexpensive one capable of rapidly and thoroughly washing clothes and adapted to
15 be operated at the expenditure of a minimum amount of labor.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

20 In the drawings, Figure 1 is a longitudinal section of a washing-machine constructed in accordance with this invention. Fig. 2 is a detail view of the bed. Fig. 3 is a detail view in perspective of the rubber and its operating handles.

Corresponding and like parts are referred to in the following description and indicated in the several views of the accompanying drawings by the same reference characters.

30 The device or apparatus comprises a box or receptacle 1, and a boiler 2, juxtaposed and formed between the same side pieces, a transverse partition 3 dividing them. The bottom of the boiler is in a higher plane than the bottom of the box or receptacle in order to provide sufficient space for a heater, which is located beneath the boiler for heating the contents thereof. The walls of the box and
40 boiler are preferably of wood, whereas their bottoms are of sheet metal, either zinc or galvanized iron, and the walls of the boiler are lined with sheet metal for the sake of cleanliness and to prevent the excessive heat from warping and otherwise injuring the wooden walls. The boiler is closed by a cover 4 and has communication with the box or receptacle 1 by means of an opening which is closed by
45 a plug 5. A drain-opening in the bottom of

the boiler is closed by a plug 6, which is withdrawn when it is required to draw off the fluid contents without letting the same into the box or receptacle 1. The box or receptacle 1 also has a drain-opening which is closed
55 by a plug 7.

The heater may be a fire-box 8, as shown in Fig. 1, or a burner 9, as indicated in Figs. 2 and 3, and its position is fixed by approximately U-shaped hangers 10, which have
60 their terminals bent outwardly and engaging with keepers or strips 11, secured to the lower side of the boiler-bottom. The fire-box 8 is for burning coal, wood, or other fuel, and the burner 9 consumes gasoline or other hydro-
65 carbon. The box 12, secured to the bottom of the boiler by means of the hangers 10 and receiving the burner 9, concentrates the heat and results in economy in the use of the burner. The smoke and products of combustion are carried off from the fire-box 8 by means of a smoke-pipe 13, which latter is dis-
70 pensed with when the burner 9 is used.

When the apparatus is arranged for washing clothes, a bed 14 is fitted thereto and operates, in conjunction with a rubber 15, to remove the dirt in the process of washing. The bed 14 consists of a board 16, corrugated or fluted on its top or active face, longitudinal bars 17, secured to the lower side of the board
80 16 at its ends, and a plate 18, made fast in any convenient way to the lower edges of the bars 17. A space 19 is formed between the plate 18 and the board 16, through which a portion of the article or clothing being washed
85 passes during the rubbing operation without interfering with the clothes located beneath the bed and pressed upon thereby. A roller 20 is located below the bottom edge of the board 16 and is journaled to the side bars 17
90 and facilitates the passage of the clothing through the space 19 and around the end of the board 16. The lower ends of the side bars 17 are beveled and engage with the beveled ends of stops or blocks 21, secured to the
95 sides of the box or receptacle 1 adjacent to the bottom, thereby holding the lower end of the bed in place and admitting of the same being readily removed. Hangers 22 are secured at their lower ends to the sides of the
100

bed, and their upper bent ends 23 are adapted to enter notches in the upper edges of the sides of the box 1, thereby retaining the bed in place.

5 The rubber 15 is a board having a series of perforations, and its upper side slopes in opposite directions from a medial line and has loose connection with the handle-bars 24, so as to adapt itself to the position of the cloth-
10 ing between it and the bed. The handle-bars 24 are deflected or bent about midway of their ends, as shown at 25, and are connected at their outer ends by a cross-bar 26 and at their inner ends by means of a swinging bail 27,
15 the latter having its bent ends 28 fitted into openings in the side pieces of the box 1 adjacent to the partition 3, one of the openings, as 29, extending through an edge of the side piece to admit of the bail being readily re-
20 moved or placed in position, and a pin 30 being provided and closing the opening or notch 29, so as to retain the bail in place when the machine is required for washing clothes. The rubber 15 has loose connection with the han-
25 dle-bars 24 at the point of flexion 25. Hence it has a wide range of movement, because of the angular spaces between its edge portions

and the lower edge of the handle-bars, as seen in Fig. 1.

Changes in the form, proportion, and minor 30 details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

35 In a washing-machine, the combination of a suds-box, an inclined bed arranged within the suds-box and having a space between it and the bottom of the same, said bed having a corrugated upper face and provided with 40 an interior longitudinal passage to receive clothes being washed, a roller journaled on the bed and arranged at the lower end of the interior passage to facilitate the movement of clothes therethrough, and a rubber, substan- 45 tially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL MATERSON MUSGRAVE.

Witnesses:

W. B. TOMPKINS,
J. C. W. NUNN.