(No Model.) 2 Sheets—Sheet 1.

P. GERARDY & W. W. ROTE.

WASHING MACHINE.

No. 302,532. Patented July 22, 1884.

Fig. 1.

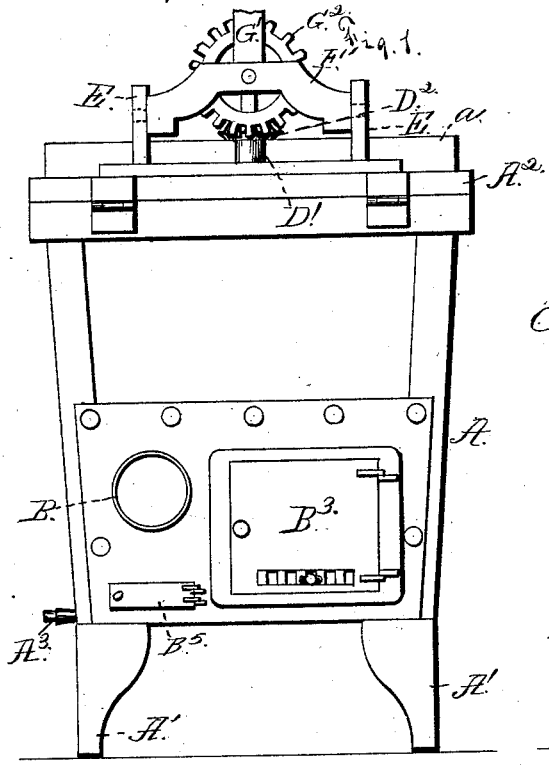


Fig. 2.

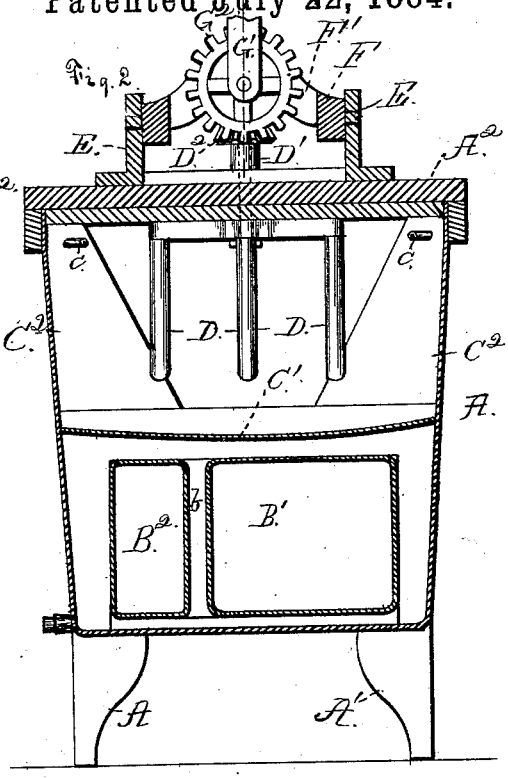


Fig. 3.

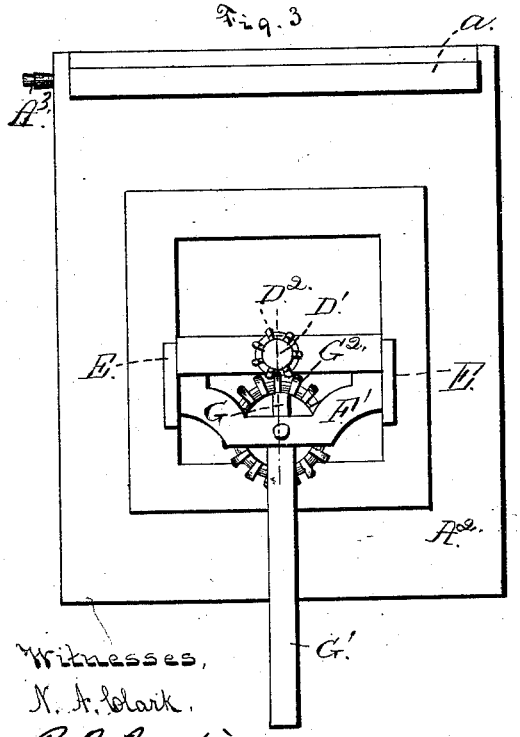
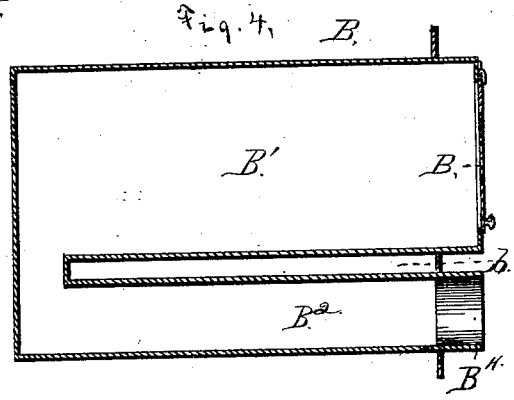


Fig. 4.



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(No Model.) 2 Sheets—Sheet 2.

P. GERARDY & W. W. ROTE.

WASHING MACHINE.

No. 302,532. Patented July 22, 1884.

Fig. 5

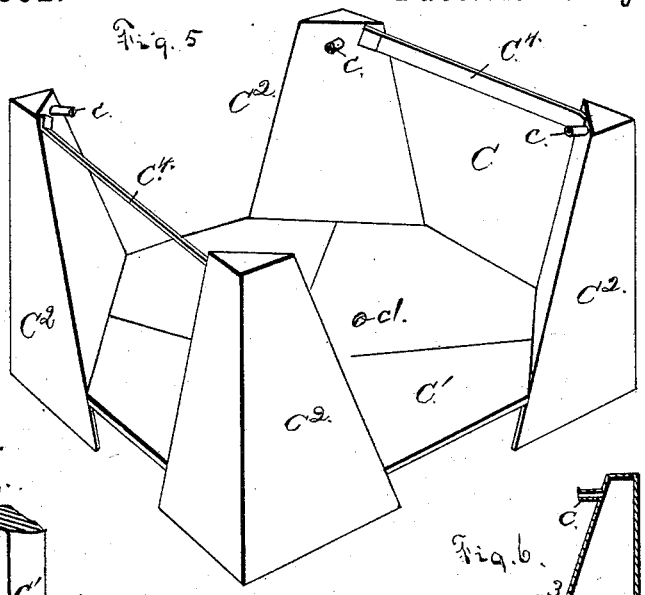


Fig. 9.

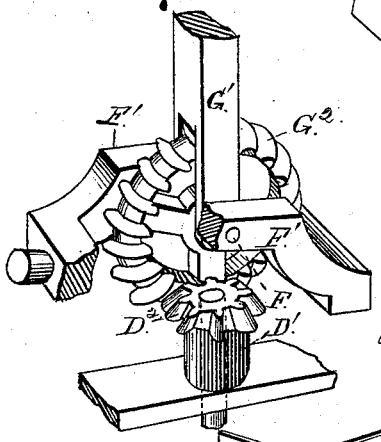


Fig. 6.

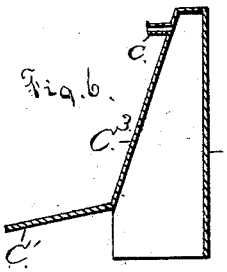


Fig. 10.

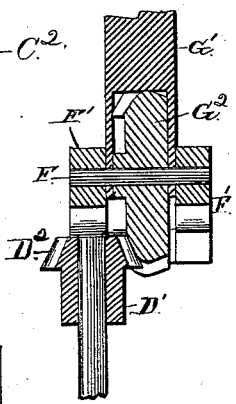


Fig. 7.

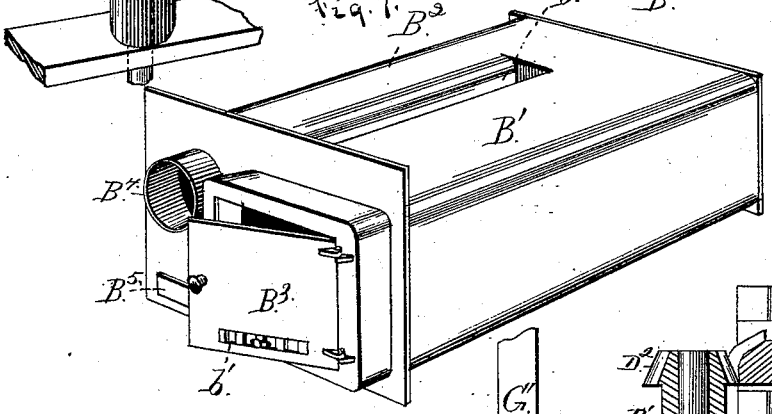


Fig. 11.

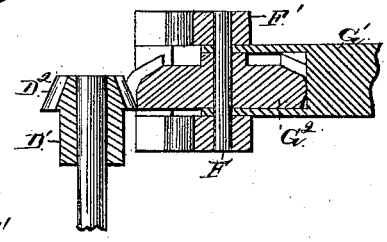
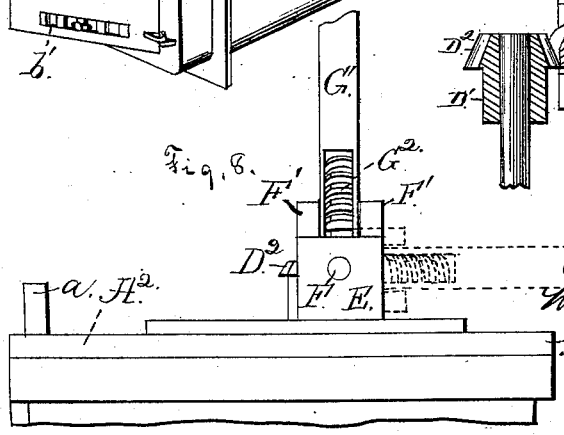


Fig. 8.



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UNITED STATES PATENT OFFICE.

PETER GERARDY AND WATSON W. ROTE, OF CARTER CREEK, KANSAS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 302,532, dated July 22, 1884.

Application filed July 9, 1883. (No model.)

To all whom it may concern:

Be it known that we, PETER GERARDY and WATSON W. ROTE, citizens of the United States, residing at Carter Creek, in the county of Clay and State of Kansas, have invented certain new and useful Improvements in Combined Washing-Machines and Feed-Cookers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in washing-machines; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is an elevation of our machine. Fig. 2 is a vertical section thereof. Fig. 3 is a plan view. Fig. 4 is a longitudinal section of the furnace. Fig. 5 is a perspective detail view of the clothes receptacle or basin. Fig. 6 is a detached section of one of the steam-flues thereof. Fig. 7 is a perspective view of the furnace. Fig. 8 is a detached edge view of the agitator-operating mechanism. Fig. 9 is a perspective view of the operating-wheel in detail; and Figs. 10 and 11 are detached sectional views of the operating-wheel and the pinion, showing the former respectively in its vertical and horizontal positions.

Our suds-box A is preferably mounted on legs A′, and is provided with the top or lid A^2, which is hinged at one end, fits at its opposite end down on opposite sides of the extension *a* of the end plate or board of the box, as most clearly illustrated in Figs. 1 and 3. The suds-box is preferably made inclined on its inner walls, as shown, for the purpose of holding the removable clothes-receptacle, hereinafter described.

In the bottom of the suds-box we arrange the furnace B, which is composed of the fire-box B′ and the smoke-chamber B^2, arranged parallel to and alongside each other, with an intervening space, *b*, as shown. The furnace is made narrower than the suds-box, so that there is a water-space between the sides of the fire-box and the walls of the suds-box, as shown in Fig. 2, and there is also a space between the end of the fire-box and the box A, as well as between its under side and the bottom of the box. Thus it will be seen the water which is placed in the box will entirely surround the furnace, utilizing all the heated surface thereof, and the space *b* between the fire-box and smoke-chamber furnishes additional heating-surface, as will be readily understood.

The fire-box is provided with a door, B^3, having damper *b′*, so that the fire may be regulated, and the smoke-chamber is provided on its outer side with the nipple B^4, to which the stove-pipe is connected. It also has the door B^5, through which the smoke-chamber may be cleansed.

The construction of the clothes receptacle or basin C is most clearly illustrated in Fig. 5. It is composed of the bottom C′ and the corner steam-flues C^2, which are provided with the vent-pipes *c*, as will be described. The receptacle is tapered on its outer side to conform to the inner walls of the suds-box, and it is placed down in the same until its bottom C′ comes slightly above the furnace B. This bottom is depressed in the center, and is foraminous, or perforated with a series of holes, *c′*, through which the water circulates, as will be described. The flues C^2 are made open at the bottom, communicating with the furnace-chamber, and are provided near their closed tops with vent steam-pipes *c*, which extend within the clothing-receptacle, as shown. The inner walls, C^3, of the flues C^2 are inclined inward from top to bottom, and with the bottom C′ form a convenient receptacle for the clothing, the inclined walls C^3 causing it to fall onto the bottom C′, where it is engaged by the agitator, hereinafter described. The inner faces of these flues or steam-passages, it will be seen, form, in connection with the sides of the casing, an approximately-cylindrical-formed washing-chamber. The agitator presently described is conformed in diameter to this chamber, and in operation better results are secured than though the corners were left open, so the agi-

tator could not beat all the clothing. The two flues arranged at the same end of the receptacle are connected near their upper ends by straps or bars C^4, by which the receptacle can be removed from the suds-box when the lid A^2 is turned back, as will be readily understood. This is convenient to enable removal of the clothing being washed all at once, as well as to facilitate the discharge of the water from the suds-box when the discharge-pipe A^3 is not employed, or the discharge thereof is not fast enough to suit the operator. The agitator is preferably made of the four depending arms D, all cast together, of galvanized iron, and is provided with the shaft passed up through a suitable bearing in the lid A^2, and having the pinion D^2 keyed on its upper end. Lugs E E are mounted on the lid A^2 and arranged on opposite sides of the pinion D^2. In these lugs E we journal the opposite ends of the frame F, between whose side bars, F', we journal the operating-wheel G. This frame F has a rocking or tilting motion in its bearings in the lugs E, so that the wheel G may be arranged in a vertical plane, as shown, Figs. 1, 2, and 9, or in a horizontal position, as indicated in dotted lines, Fig. 8, or full lines, Fig. 3. This wheel G is provided with a suitable handle, G' and its teeth G^2 are formed on its periphery and curved around on the side or edge which comes next the pinion D^2 when the wheel is raised to or toward a vertical position, as will be readily understood. By this construction the operator is enabled to vary the position in which he works, and the labor of operating the agitator is accordingly decreased.

In the operation of the machine, it will be understood that the nipple B^4 is connected by suitable pipe with a stove-pipe when the machine is used in the house, or has a suitable smoke-pipe attached when the machine is used in the open air. The fire is built in the fire-box, and the water placed in the suds-box surrounds the furnace, and soon becomes heated, and the clothes are put in the receptacle C, and the agitator is operated, dashing the clothes from side to side. The water flows back and forth through the holes c', and steam and water pour from the pipes c onto the clothing, and a thorough cleansing of the latter is accomplished.

We prefer to use our machine as a washer, as before described; but it will be understood that it could be employed for various other purposes—such, for instance, as the cooking of food for horses, cows, &c., for which it would be of good service.

By combining the water-heating devices and the washing mechanism the machine is made portable, and can be operated in the open air, which is of great advantage in the summer months, as it avoids the heating of the house by the hot fires necessary to heat sufficient water to properly wash the clothing.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

The combination, substantially as hereinbefore set forth, of a suds-box, a suitable cover or cross-bar whereby a bearing for the agitator-shaft is provided, the agitator-shaft, a pinion secured on said shaft, the drive gear-wheel having teeth formed on its periphery and extended around on one of its side faces, as described, and a pivoted bearing-frame supporting said drive-gear, whereby it may be operated in a horizontal, vertical, or any intermediate angle, substantially as described, and for the purposes specified.

In testimony whereof we affix our signatures in presence of two witnesses.

PETER GERARDY.
WATSON W. ROTE.

Witnesses:
JAMES HOGAN,
C. WALTON.