

L. SCRUGGS.
 WATER RESERVOIR FOR RANGES.
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1,063,944.

Patented June 3, 1913.

Fig. 1.

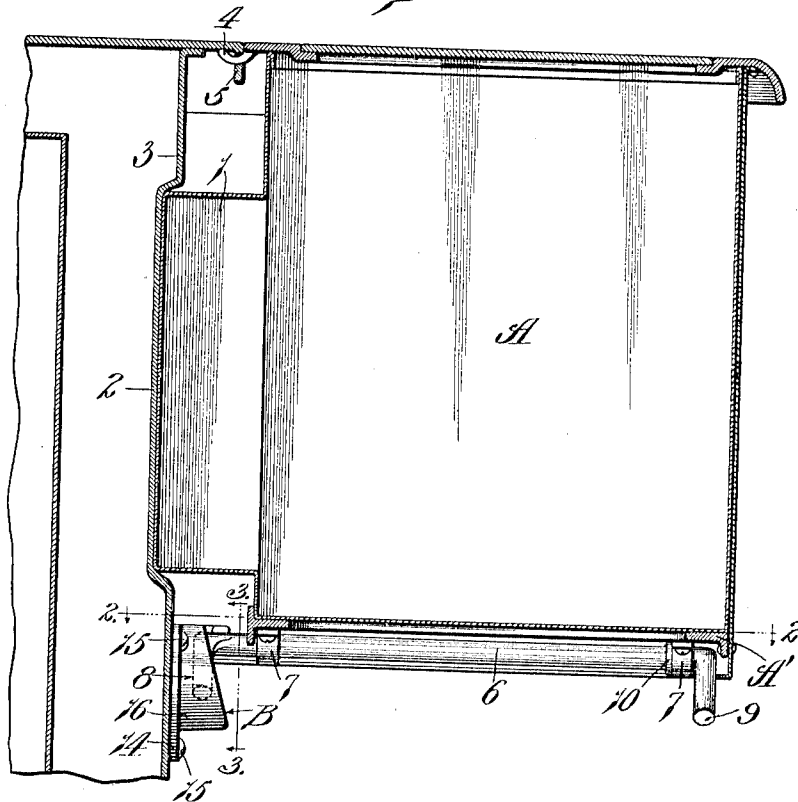


Fig. 2.

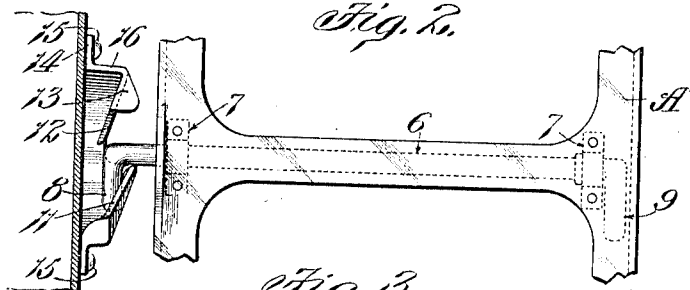
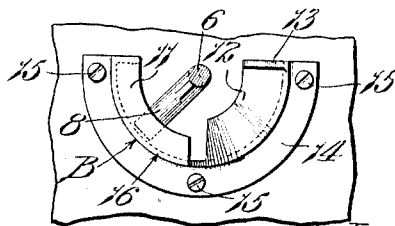


Fig. 3.



Witnesses:
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 By Paul Bakerwell, Atty.

UNITED STATES PATENT OFFICE.

LOYD SCRUGGS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO COPPER CLAD MALLEABLE RANGE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF NEBRASKA.

WATER-RESERVOIR FOR RANGES.

1,063,944.

Specification of Letters Patent.

Patented June 3, 1913.

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To all whom it may concern:

Be it known that I, LOYD SCRUGGS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and
5 useful Improvement in Water-Reservoirs for Ranges, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

10 This invention relates to coal ranges, and particularly to the reservoirs used on such ranges.

One object of my invention is to provide a range in which the means that forces the
15 water reservoir tightly against the wall of the range is so arranged that it can be operated conveniently and without stooping down and reaching under the reservoir.

Another object is to provide a range having a hinged water reservoir and means for
20 moving the water reservoir out of engagement with the wall of the range that heats the reservoir, thus permitting the water in the reservoir to remain cool even when a
25 hot fire is in the range.

Another object is to provide a water reservoir coal range in which the operating means that forces the reservoir into snug engagement with the wall of the range that
30 heats the reservoir is carried by or mounted upon the frame of the reservoir, thereby permitting the reservoir to be removed bodily from the range without stooping down underneath the reservoir and loosening
35 a number of fastening devices such as is necessary with the water reservoir coal ranges now in general use. And still another object is to provide a water reservoir coal range that has a reservoir-operating
40 device of simple construction that can be manufactured at a low cost and which is so designed that the water reservoir can be moved easily into or out of engagement with the wall of the range that heats the reservoir.
45

Other objects and desirable features of my invention will be hereinafter pointed out.

Figure 1 of the drawings is a vertical sectional view of a portion of a coal range provided with a water reservoir and a reservoir-operating device constructed in accordance with my invention; Fig. 2 is a horizontal sectional view of a portion of the
55 range taken on approximately the line 2—2 of Fig. 1, looking in the direction indicated

by the arrows; and Fig. 3 is a vertical sectional view of a portion of the range taken on approximately the line 3—3 of Fig. 1, looking in the direction indicated by the
60 arrows.

Referring to the drawings which illustrate the preferred form of my invention, A designates a water reservoir of a coal range which is preferably provided at its
65 inner side with a laterally projecting portion 1 that fits in a concave seat 2 formed in the wall 3 of the stove that heats the reservoir. The reservoir A is preferably hinged to the range by means of hooks 4 at
70 the upper end of the reservoir which project through openings in a depending flange 5 on the top of the range, and means is provided for moving the reservoir A toward and away from the heating wall 3 of the
75 stove so as to hold the laterally projecting portion 1 of the reservoir snugly in the recessed seat in the heating wall 3 of the stove, or else hold said portion 1 out of engagement with the heating wall 3 of the range.
80 The reservoir-operating means that I prefer to use for this purpose consists of a shaft 6 journaled in straps or bearings 7 on the under side of the bottom frame A' of the reservoir, and provided at its inner end
85 with a crank or right-angularly-disposed arm 8 that coöperates with a cam member B secured to the outer face of the wall 3 of the range, said operating shaft extending across the bottom of the reservoir and being provided at its front end with a handle
90 9 which is so arranged that the user can operate the shaft 6 easily without stooping down and reaching under the reservoir. The handle 9 lies close enough to one of
95 the bearings 7 in which the operating shaft 6 is journaled to prevent the shaft from moving longitudinally in one direction, and longitudinal movement of the shaft in the opposite direction is prevented by means of
100 a collar 10 on the shaft that is arranged on the other side of said bearing.

The cam member B with which the crank arm 8 on the operating shaft coöperates, is preferably provided with two segmental-
105 shaped flanges 11 and 12 that form cams with which the crank arm on the operating shaft coöperates, the cam 11 being so disposed that when the shaft 6 is turned in one direction the arm 8 thereon travels upwardly
110 over the inner face of the cam 11 and thus positively draws the water reservoir into inti-

mate contact with the heating wall 3 of the range, and the cam 12 being so disposed that when the shaft 6 is turned in the opposite direction the crank arm 8 thereon travels upwardly over the front face of the cam 12 and thus positively forces the reservoir in the opposite direction so as to break the contact between the reservoir and the heating wall of the range. If desired, the cam 12 can be provided adjacent its upper end with a stop 13 that coöperates with the arm 8 on the operating shaft 6 so as to limit the movement of said shaft when the shaft is turned in a direction that causes the water reservoir to be moved out of intimate engagement with the heating wall of the range. The lower end of the cam 12 is spaced far enough to the rear of the lower end of the cam 11 to permit the arm 8 on the operating shaft to swing upwardly in one direction and thus engage the rear side of the cam 11 or swing upwardly in the opposite direction and thus engage the front face of the cam 12, the cam 11 being inclined inwardly toward the wall 3 of the range to which the cam member B is connected, and the cam 12 being inclined in the opposite direction away from the wall of the range. As shown in the drawings, the cam member B is provided with a semi-circular-shaped flange 14 through which fastening devices 15 pass so as to connect said member to the wall 3 of the range, and the cams 11 and 12 are carried by a semi-ring-shaped flange 16 that projects outwardly from the attaching flange 14, said flanges and cams being preferably integrally connected together.

One advantage of a range of the construction above-described is that the water reservoir can be lifted bodily off the range without the necessity of stooping down and reaching under the reservoir and disconnecting any coöperating elements, this being due to the fact that the operating shaft on the reservoir and the coöperating cam member on the range are so designed that they can be separated simply by lifting the reservoir upwardly. Another advantage of such a construction is that it enables the water reservoir to be forced tightly into engagement with the heating wall of the range or disengaged from said heating wall and held in such a position that the water in the reservoir will remain comparatively cool even when a hot fire is in the range. And still another advantage of such a construction is that it is inexpensive to manufacture and is not liable to get out of order or fail to accomplish the results for which it was designed.

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

1. A range provided with a water reservoir, an operating shaft arranged on the under side of the reservoir and provided at its inner end with a crank arm, and a member on the range provided with a plurality of cams with which said crank arm coöperates so as to move the reservoir into and out of engagement with the wall of the range that heats the reservoir.

2. A range provided with a reservoir, an operating shaft on the under side of the reservoir provided with a handle that is located adjacent the front of the reservoir, a crank arm on the rear end of said shaft, and a member on the range provided with a pair of cams that coöperate with said crank arm and which are so designed that the reservoir will be moved into snug engagement with one wall of the range when the shaft is turned in one direction and out of engagement with said wall when the shaft is turned in the opposite direction.

3. A range provided with a water reservoir, an operating shaft carried by said reservoir and provided at its inner end with a crank arm, and a cam member on the range coöperating with said crank arm and provided with two vertically disposed segmental-shaped cams arranged on opposite sides of said shaft, said cams being inclined in opposite directions with relation to the wall of the range that heats the reservoir.

4. A range provided with a water reservoir, an operating shaft journaled on the under side of the reservoir and provided at its rear end with a crank arm, and a cam member on the range provided with a semi-ring-shaped flange that has two oppositely inclined segmental-shaped cams with which said crank arm coöperates.

5. A range provided with a water reservoir, an operating shaft journaled on the under side of the reservoir and provided at its rear end with a crank arm, a cam member on the range provided with a semi-ring-shaped flange that has two oppositely inclined segmental-shaped cams with which said crank arm coöperates, and a stop on said member that coöperates with said crank arm to limit the movement of said shaft in one direction.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this twenty-second day of December 1911.

LOYD SCRUGGS.

Witnesses:

WELLS L. CHURCH,
GEORGE BAKEWELL.