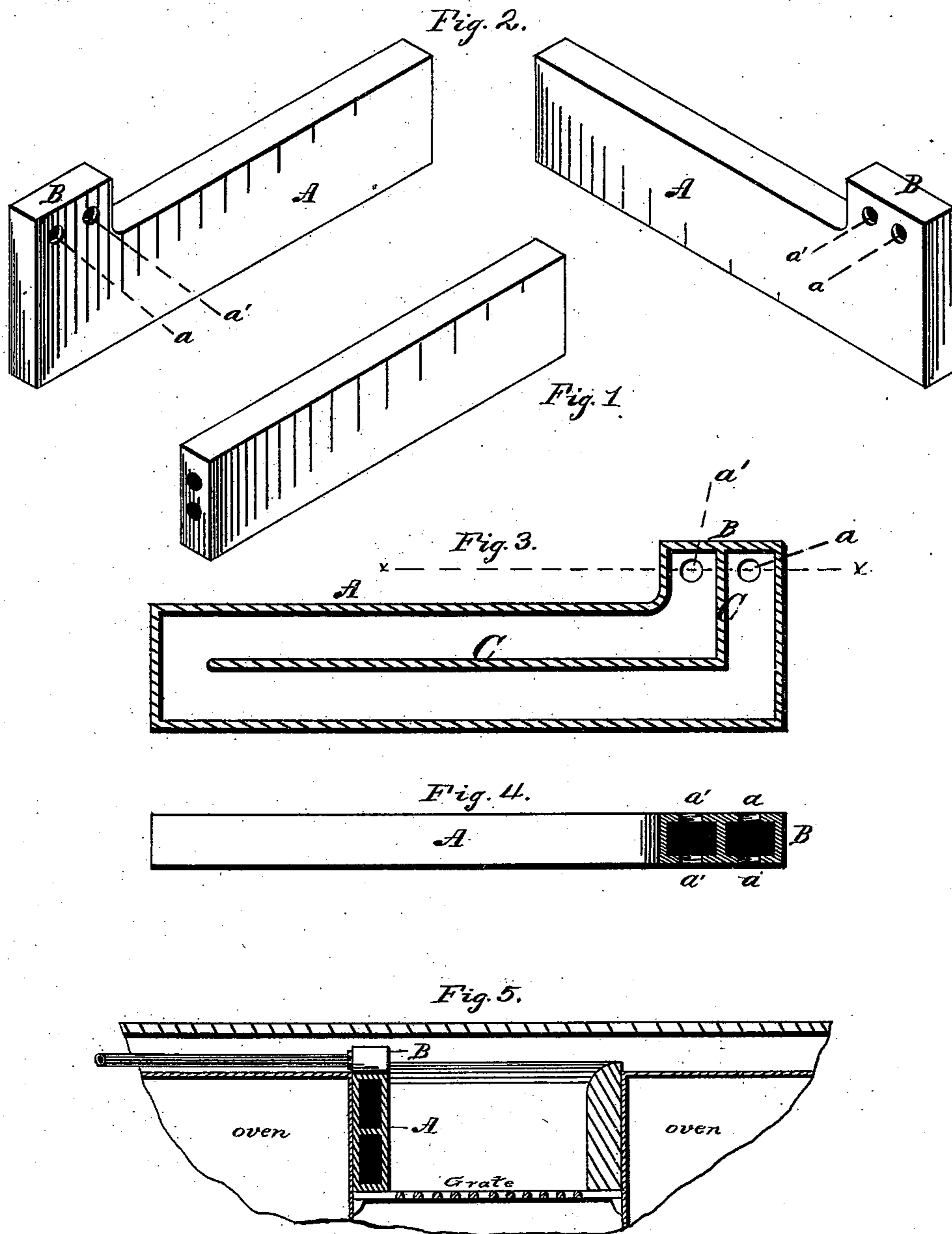


J. G. WELDON.
Range Water-Back.

No. 227,334.

Patented May 4, 1880.



Witnesses.
J. A. Pollock.
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UNITED STATES PATENT OFFICE.

JAMES G. WELDON, OF PITTSBURG, PENNSYLVANIA.

RANGE WATER-BACK.

SPECIFICATION forming part of Letters Patent No. 227,334, dated May 4, 1880.

Application filed August 8, 1879.

To all whom it may concern:

Be it known that I, JAMES G. WELDON, of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Range Water-Backs; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a view of the old-style water-back. Fig. 2 are two perspectives of my improvement from opposite points of view. Fig. 3 is a vertical longitudinal section. Fig. 4 is a plan section, *x x*, of Fig. 3. Fig. 5 is a view showing position of water-back in range and its adaptability to right or left feed.

This invention relates to the construction of water-backs for stoves and ranges; and it consists in making the water-back L-shaped and cutting the holes for the water-pipes transversely through the lateral branch thus formed, whereby the circulating-pipes can be readily attached. The water-back is reversible and applicable to various positions, and the heating-surface is increased.

It further consists in a partition following the L shape, whereby a greater vertical height is acquired for the action of the heat to produce circulating currents.

In the drawings, A designates the main portion of my water-back, having the lateral extension B, giving the whole an L shape, the part B occupying an erect position when the water-back is in place.

I cut the holes *a a'* transversely through both walls and thread them. Holes *a* are for the attachment of the cold-water pipe, and holes *a'* for the hot-water pipe, and the addition of the part B gives to the columns formed by the partition C a greater vertical height for the formation of circulating currents.

The invention is applied as follows: It is set in the fire-pot to form either of its sides or

back, and its proportions are such that its main portion A rises about to a level with the floor of the flue, and the part B projects above it sufficiently to bring the holes *a a'* just above or higher than the floor of the flue. By this means the water-pipes may be readily connected, and, the holes being on both sides, the water-back may be set on the right or left or back of the fire-pot, and in either of the three locations it is reversible end for end. Thus the water-back is capable of being placed in six different ways, and in all the pipes may pass, without joints or elbows, in a straight line from the water-back through the flue. The pipes being fitted to but two of the holes, the remaining two are closed with screw-plugs.

The double set of holes gives me the advantage of being able to reverse the position of the water-back at will. Thus the same water-back, by changing the plugs and position, serves for the various locations required for the trade, and dispenses with the necessity of having a lot of differently-shaped patterns.

I am aware that an integral extension to a water-back is not broadly new; but my invention relates to the construction of the water-back with a view to convenience in applying it to ranges and adapting it to the variable conditions of kitchen-walls, direction of setting, and position of the range-boiler.

I therefore claim as my invention—

1. A reversible water-back having an upward extension with the openings *a a'* on opposite sides thereof, substantially as set forth.

2. The water-back A, having the extension B, lateral openings *a a'*, and L-shaped partition C, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of June, 1879.

JAMES G. WELDON.

Witnesses:

W. H. PORTER,
MARTIN REARDON.