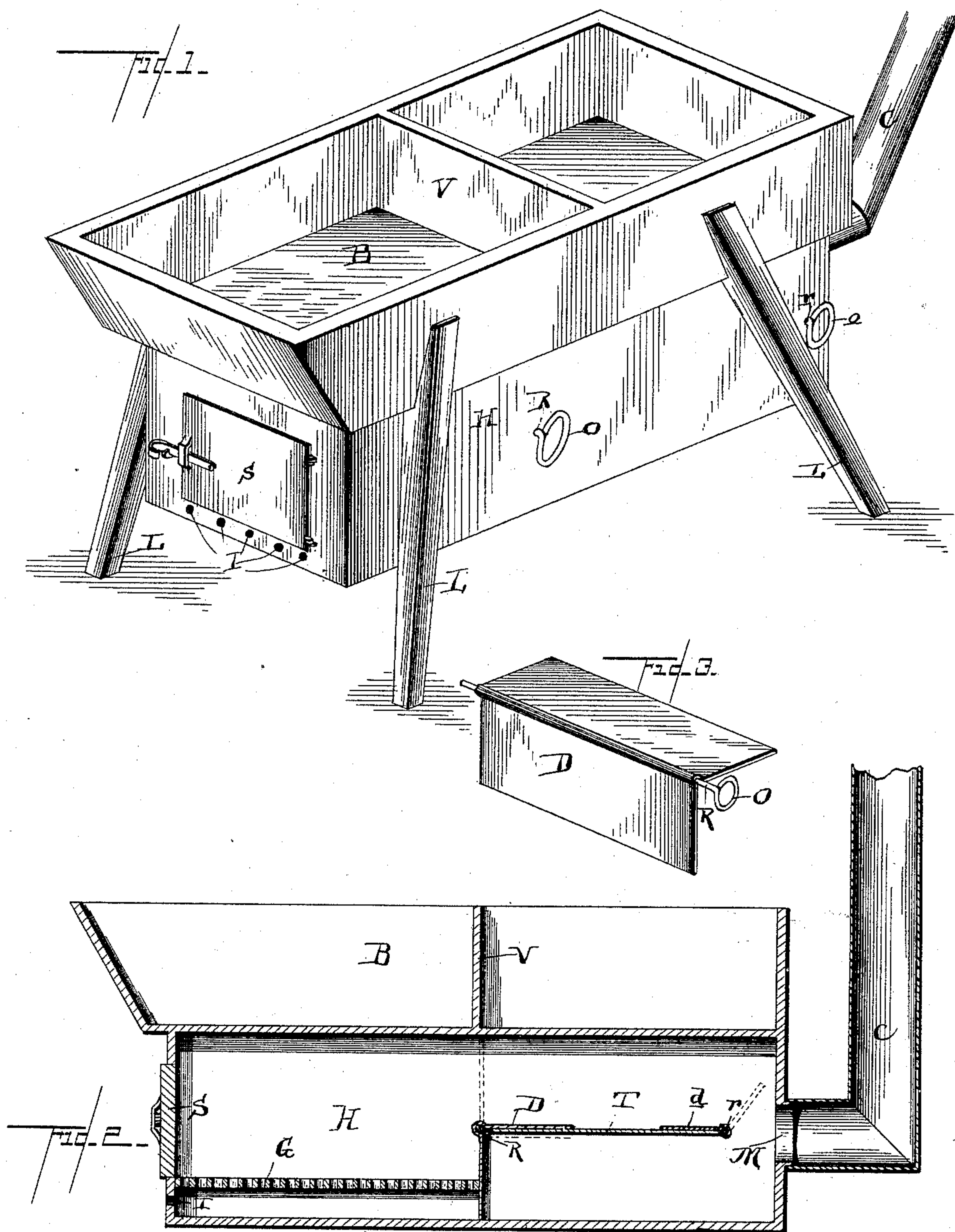


(No Model.)

V. J. PANNELL.
FURNACE.

No. 482,458.

Patented Sept. 13, 1892.



Witnesses

W. H. G. Seitz

W. Colclamer,

Inventor

- Vincent J. Pannells -

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UNITED STATES PATENT OFFICE.

VINCENT J. PANNELL, OF FARMINGTON, MISSOURI.

FURNACE.

SPECIFICATION forming part of Letters Patent No. 482,458, dated September 13, 1892.

Application filed April 25, 1891. Serial No. 390,510. (No model.)

To all whom it may concern:

Be it known that I, VINCENT J. PANNELL, a citizen of the United States, residing at Farmington, in the county of St. Francois and State of Missouri, have invented a new and useful Furnace, of which the following is a specification.

This invention relates to stoves and furnaces, and more especially to the boilers used in connection therewith.

The object of the invention is to produce certain improvements in devices of this character, to which end it consists of the details of construction hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is a general perspective view of this device. Fig. 2 is a central longitudinal section thereof. Fig. 3 is an enlarged perspective detail of the L-shaped damper I use.

Referring to the said drawings, the letter H designates the stove or other source of heat, upon which is mounted the boiler proper B, which is preferably provided with a central vertical transverse partition V, whereby it is divided into front and rear sections. G is a grate in the stove or fire-box; S, a swinging or sliding door; I, the air-inlet openings or damper, and C the chimney or exit-flue for the products of combustion, which flue opens from the rear end of the heater, as shown. These parts are of the usual or of any preferred construction and material, the top of the heater preferably forming the bottom of the boiler, and the whole may be mounted upon supporting-legs L, as shown, whereby it will be impossible for children to fall into the boiler.

Within the heater is a transverse partition T, extending from a point a little forward of the vertical center of the mouth M of the flue C to a point about midway of the length of the heater—that is to say, at about the center of the heater. At this point is a transverse rod R, whose ends are journaled in the sides of the heater and one of which is provided with an operating-handle O, and secured to this rod is an L-shaped damper D. Across the rear end of the partition T is another rod r, having a similar handle o on one end, and secured to this rod is a flat damper d.

In operation a fire is built upon the grate

and one or both sections of the boiler are filled or partially filled with whatever it is desired to heat or cook. It is obvious that the direct heat of the fire will strike the bottom of the front section of the boiler, and hence this section will be at all times highly heated. When the L-shaped damper D is turned to the position shown in full lines in Fig. 2, the products of combustion will be caused to pass above the partition T, whereby the rear section of the boiler will be heated, though obviously not to the same extent as the front boiler. When this damper is turned to the position shown in dotted lines, the draft will be across the grate, beneath the partition T, and out the flue C, and the result will be that the rear section will not be heated at all, except by radiation, and the draft will be so low that the front section will not be heated so much as before.

When it is desired to heat both sections of the boiler to a considerable extent, the flat damper d is almost closed, as seen in dotted lines, (though under the conditions mentioned above it stood open, as seen in full lines,) and the L-shaped damper is turned down to the full-line position. This causes the heat to rise from the fire, strike the bottom of the front section, and pass to the rear above the partition T and beneath the bottom of the rear section; but it is confined at this point and its escape retarded by the reduction in size of the mouth M, which is due to the position the flat damper occupies.

Various other conditions of temperature may be provided for by arranging the dampers differently, as experience will teach is necessary and advisable.

This device is especially useful for boiling clothes of two different colors simultaneously or for cooking fruit, either in two different stages in the different sections of the boiler or simultaneously with the clothes in the other section.

I do not limit myself to a single vertical partition or to the other precise details of construction, as various changes may be made therein without departing from the spirit of my invention.

What is claimed as new is—

The combination, with a heater having a grate at its front end, an exit-flue leading from the center of its rear end, and a boiler mount-

ed upon the heater and divided into sections
by a transverse vertical partition, of a trans-
verse horizontal partition within the heater,
extending from a point slightly forward of
5 the center of the mouth of said exit-flue to a
point beneath said vertical partition, where it
terminates, rods journaled in the sides of the
casing and extending across the ends of this
horizontal partition, handles on the ends of
10 said rods, an L-shaped damper fixed upon the
front rod at the inner terminal of said parti-
tion and adapted in both positions to have
one wing thereof form a rear wall for the
heater fire-box, while the other wing rests flat

upon either side of the partition, said L- 15
shaped damper being adapted to divide the
currents of heat directly in a line below the
vertical partition, and a flat damper fixed
upon the rear rod and of a width to strike the
rear end of the heater above said mouth, as 20
and for the purpose hereinbefore set forth.

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

VINCENT J. PANNELL.

Witnesses:

THOMAS WILLIAMS,
H. B. LEDBETTER.