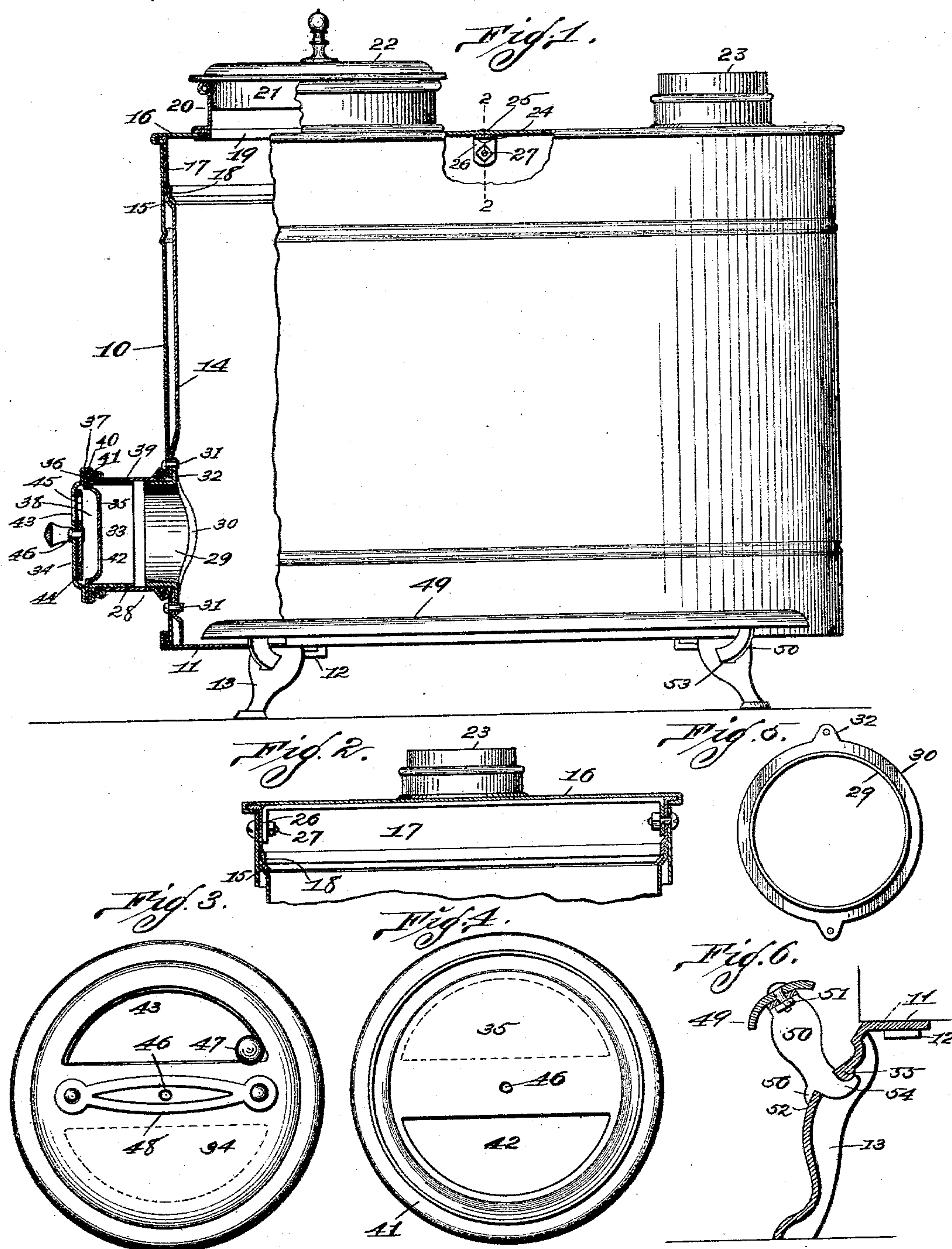


(No Model.)

L. W. HEMP.
STOVE.

No. 571,878.

Patented Nov. 24, 1896.



Attest
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UNITED STATES PATENT OFFICE.

LEWIS W. HEMP, OF ST. LOUIS, MISSOURI.

STOVE.

SPECIFICATION forming part of Letters Patent No. 571,878, dated November 24, 1896.

Application filed June 22, 1896. Serial No. 596,476. (No model.)

To all whom it may concern:

Be it known that I, LEWIS W. HEMP, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to stoves; and it consists in the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a side elevation of my improved stove, partly in section. Fig. 2 is a vertical sectional view transversely through the top of the stove and approximately on the indicated line 2 2. Fig. 3 is a front elevation of the hot-blast damper and spark-arrester of which I make use. Fig. 4 is a rear elevation of the parts shown in Fig. 3. Fig. 5 is a front elevation of a casting of which I make use. Fig. 6 is a vertical sectional view through one of the stove-legs, illustrating the means of supporting the foot-rest.

In the construction of my improved stove the sheet-metal body 10 is attached to the sheet-metal bottom 11 in the usual manner, and loops 12 are attached to the bottom 11 and form seats for the upper ends of the legs 13. The lining 14 is inserted inside of the body 10 and is somewhat smaller than said body 10. The upper edge 15 of the lining 14 is flared outwardly to fit tightly against the inner surface of the body 10, and is designed to engage said body 10 a slight distance below the upper edge thereof.

The sheet-metal top 16 is large enough to cover the opening in the upper end of the body 10, and a flange 17 projects downwardly from the edge of said top and is designed to fit closely within the upper end of the body 10. The lower edge 18 of the flange 17 is turned inwardly and designed to fit closely within the upper edge 15 of the lining 14.

In the front part of the top 16 is an opening 19, in which is inserted the thimble 20, and said thimble is designed to receive the flange 21 projecting downwardly from the cover 22.

In the rear part of the top 16 is inserted the thimble 23, designed to receive the lower end

of the stovepipe. A piece of strap-iron 24 is placed transversely under the top 16, and is attached thereto by means of the rivet 25. The ends 26 of the strap 24 are turned downwardly inside of the flange 17, and stove-bolts 27 are inserted through the upper edge of the body 10, then through the flange 17, and then through the downwardly-turned ends 26 of the strap 24 for the purpose of holding the top securely in position.

In the front side of the body 10 and near the lower end thereof is the draft-opening through the lining 14 and the body 10, and the rear end of the thimble 28 is attached to the body 10 around said opening. A cast-iron thimble 29 is inserted in said draft-opening from the inside of the stove, and the flange 30 engages the edge of the lining 14 around said opening and presses it against the inner surface of the body 10. Stove-bolts 31 are inserted through the body 10, then through the lining 14, and then through the ears 32 projecting from said flange 30, and hold said thimble 29 firmly in position within the draft-opening.

The hot-blast damper and spark-arrester 33 is designed to close the front end of the thimble 28. In the construction of said hot-blast damper and spark-arrester I employ the two disks 34 and 35, the edges 36 and 37 of which are turned toward each other as required to form the space 38 between said disks. The thimble 39 is designed to fit closely within the front end of the thimble 28, and upon its outer end is a flange 40, designed to fit against the inner surface of the edge 37 of the disk 35, and the extreme outer edge 41 of the disk 34 is turned over the edge 37 and over the edge of the flange 40 and downwardly behind said flange 40, as required, to hold the disks 34 and 35 and the thimble 39 securely together. Below the center of the disk 35 is an opening 42 in said disk, and above the center of the disk 34 is an opening 43 in said disk 34. A disk 44 is designed to operate within the space 38 between the disks 34 and 35 and has an opening 45 above its center and corresponds to the opening 43. A stove bolt or rivet 46 is fixed in the center of the disk 34, and the disk 44 is loosely mounted upon the inner end thereof.

The openings in the disks 34, 35, and 44 are circular on one edge and straight on the opposite edge, but they are somewhat less than semicircular.

5 A handle 47 is attached to the disk 44 near one corner of the opening 45, and said handle projects outwardly through the opening 43 and is designed to be manually engaged for the purpose of operating the disk 44, as re-
10 quired, to bring an imperforate part of said disk opposite the opening 43, thus shutting off the circulation of the air through said opening and into the stove.

A handle 48 is attached to the outer surface
15 of the disk 34 and directly below the opening 43 and is designed to be manually engaged when it is desired to remove the thimble 39 from the thimble 28 or replace said thimble.

Upon each side of the stove is a foot-rest
20 49, supported by the posts 50. Said posts are attached at their upper ends to the under side of the foot-rest 49 by means of the bolts 51. In the shoulders 52 of the stove-legs are apertures 53, and upon the lower ends of the
25 posts 50 are hooks 54, designed to be inserted in said apertures 53. Upon the insides of the legs and above the openings 53 are strengthening-lugs 55, designed to be engaged by the points of the hooks 54, and projecting down-
30 wardly from the posts 50 are lugs 56, designed to engage against the outer surface of the shoulders 52 and below the apertures 53.

In the practical operation of my improved stove the fuel is inserted by removing the
35 cover 22. The draft is regulated by manipulating the handle 47 and opening and closing the opening 43. I wish to call especial attention to the construction of the hot-blast damper and spark-arrester.

40 It will be noticed that the openings 42 and 43 are considerably out of alinement with each other and that the disk 35 is imperforate behind the opening 43. As the draft of air passes through the opening 43 it will strike
45 the outer surface of the disk 35 and be heated to some extent before passing into the opening 42 and into the stove. Sparks from the fire within the stove in flying outwardly through the draft-opening surrounded by the
50 thimble 29 will strike against the disk 35 above the opening 43, or if they pass through the opening 42 they will strike the disk 44, but in no event will they pass outwardly through the opening 43.

55 Another point to which I call especial attention is the construction by which the lining 14 may be removed and replaced at will. By removing the bolts 27 the top 16 and the flange 17 may readily be removed from the
60 stove. Then by removing the bolts 31 the thimble 29 may readily be removed from the draft-opening, and then the lining 14 is free to be removed from the stove and a new lining may be substituted.

65 Another point of special importance is the manner of supporting the foot-rest 49 by in-

serting the posts 50 into the openings 53 in the legs 13, as hereinbefore described.

A stove of my improved construction possesses many points of superiority over the
70 stoves heretofore in use.

I claim—

1. In a stove, a sheet-metal body 10 in a vertical position, the sheet-metal bottom 11 attached to said body 10, the lining 14 remov-
75 ably inserted inside of the body 10, said lining having the outwardly-flared upper edge 15 fitting tightly within and a slight distance below the edge of said body 10, the sheet-
80 metal top 16 covering the upper end of said body 10, the flange 17 projecting downwardly from the edge of said top and fitting closely within the upper end of the body 10, the lower
85 edge 18 of said flange being turned inwardly and fitting closely within the upper edge 15 of the lining 14, the strap of iron 24 extending transversely under the top 16 and at-
90 tached thereto by means of the rivet 25 and having its ends 26 turned downwardly inside of the flange 17, and the stove-bolts inserted through the upper edge of the body 10, then
95 through the flange 17, and then through the ends 26 for the purpose of holding the parts securely in position, substantially as specified.

2. In a stove, a hot-blast damper and spark-
95 arrester, consisting of the disk 34 having the opening 43 above its center, the disk 35 having the opening 42 below its center, the edges 36 and 37 of said disks being turned toward each other as required to form a space be-
100 tween said disks, the thimble 39, the flange 40 projecting outwardly from the outer end of said thimble and engaging against the inner surface of the edge 37 of the disk 35, the
105 outer edge 41 of the disk 44 being turned over the edge 37 and over the edge of the flange 40 and downwardly behind said flange 40 as required to hold the disks 34 and 35
110 and the thimble 39 securely together, and the disk 44, having the opening 45 above its center, pivotally mounted between the disks 34 and 35, substantially as specified.

3. In a stove, the bottom 11, the loops 12 at-
115 tached to said bottom, the legs 13 inserted in said loops; said legs having the apertures 53, the foot-rest 49, the posts 50 attached to said foot-rest by means of the bolts 51, the hooks
120 54 upon the lower ends of said posts and removably inserted in said apertures 53, the strengthening-lugs 55 upon said legs 13 in position to be engaged by said hooks, and
125 the lugs 56 extending downwardly from said posts 50 and engaging the outer surface of the legs 13 below the apertures 53, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

LEWIS W. HEMP.

Witnesses:

S. G. WELLS,
MAUD GRIFFIN.