



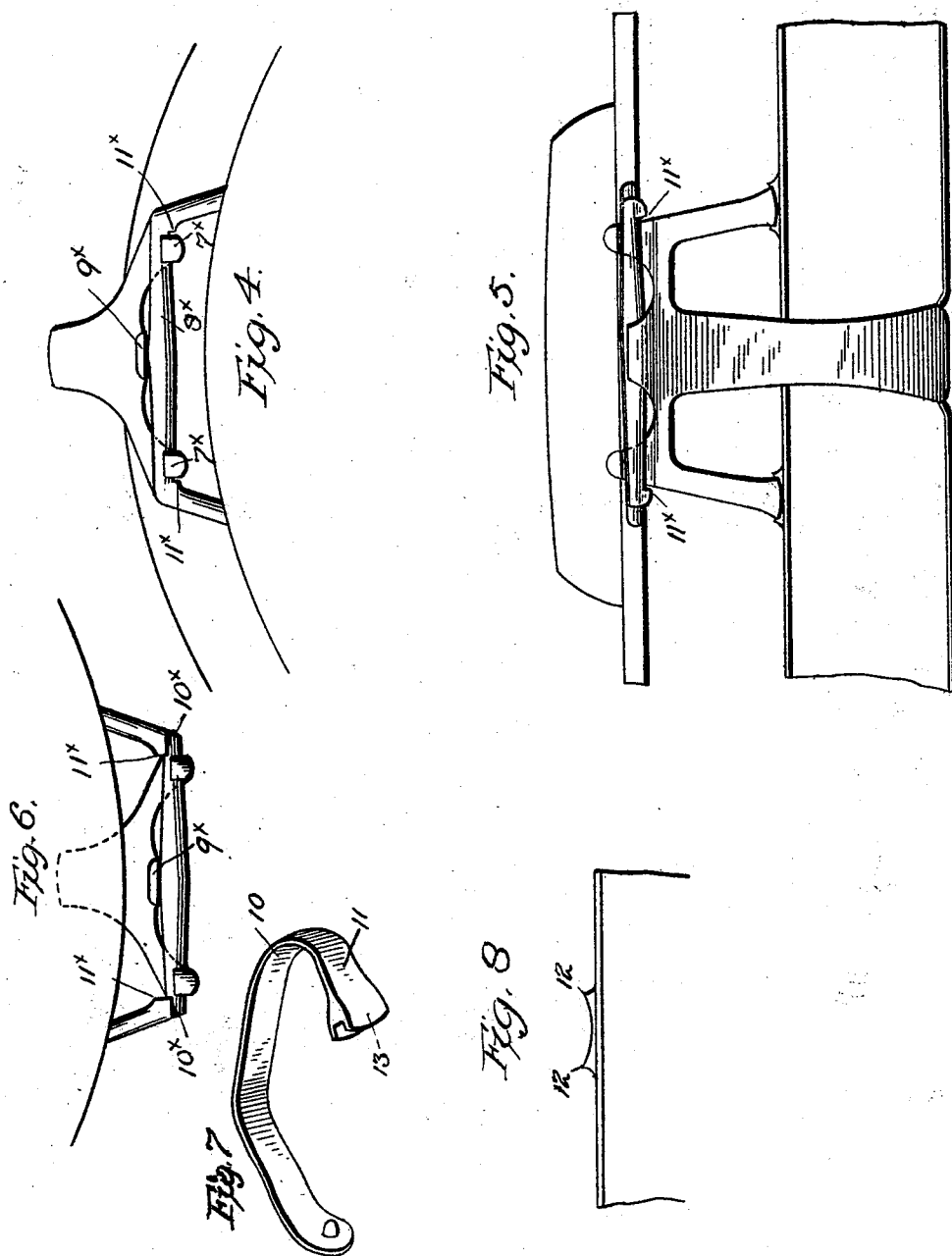
(No Model.)

2 Sheets—Sheet 2.

H. P. WILDER.  
OIL OR LAMP STOVE.

No. 521,748.

Patented June 19, 1894.



Attest  
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Attys

# UNITED STATES PATENT OFFICE

HARLAN P. WILDER, OF GARDNER, MASSACHUSETTS.

## OIL OR LAMP STOVE.

SPECIFICATION forming part of Letters Patent No. 521,748, dated June 19, 1894.

Application filed January 11, 1893. Serial No. 458,000. (No model.)

### *To all whom it may concern:*

Be it known that I, HARLAN P. WILDER, a citizen of the United States of America, residing at Gardner, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Oil or Lamp Stoves, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention is an improvement in oil or lamp stoves and relates particularly to the manner of attaching the cone stand and base together; also to the manner of holding the chimney in place and connecting it with the other parts, further to a special form of detachable hinge connection between the cone plate and stand or base.

In the drawings Figure 1, is a side view of the stove, partly in section and Fig. 2, is a sectional plan view. Fig. 3, shows details of the hinge. Fig. 4, is a plan, and Fig. 5, is a rear view of a modified form of hinge, and Fig. 6 is a plan view of the hinge of Fig. 4 turned back. Fig. 7, is a detail view of the handle. Fig. 8 is a detail view of the bearing for the handle.

The cone stand 1, is attached to the base by springing one part into connection with the other and in this my invention consists broadly. In the present instance the cone stand is provided with lateral and downward extensions 2, in the form of feet, which rest upon the upper edge of the base 3, and have hooked projections which extend over and below a bead or flange 4, on the said base. By this construction the stove is supported and the base which may be made of sheet metal with a flaring upper rim is prevented from spreading when the stove is subjected to the weight of the articles being heated. The flaring construction of the base provides a pan like receptacle, in which the wick tubes are located. By springing the parts into connection with each other no special form of connection or holding bolt is necessary and I do not wish to limit myself as to which part is sprung into connection with the other. In the form shown the hooked feet merely extend over the flange or bead and no bearing or connection is necessary with the inner part of the rim. I do not wish to limit myself, either, to the form of base shown as this may

be varied as desired though the form shown is of material advantage. The cone plate 7, is formed with an annular rim against which the drum is adapted to bear at its lower edge, this rim being marked 5, and the drum 6. The drum is formed of sheet metal of sufficient length to pass only partially about the flange so as to leave the front opening for the door, and in order to secure the drum in place laterally I have provided interior projections 17 on the door plate adapted to pass through openings formed near the ends of the drum shell, these projections preferably extend at an angle to the door plate, and form a hooked connection between the same and the shell of the drum so that the door plate serves to connect the two ends of the shell as well as serving to support the hinged part of the door, these projections are preferably cast with the door plate. The term "cone stand" as used herein is applicable to any desired form of support for the cone or upper part of the stove.

The special form of hinge connection is provided for the purpose of allowing the chimney to swing entirely back, so that its edge will rest on the surface of the table or other support upon which the lamp is placed, to be supported thereby, and adapted further to maintain the chimney in pivotal connection with the base or cone stand, until the chimney is swung below the plane of the base, when it can be entirely detached if desired. At the rear upper edge of the cone stand lugs 15, project rearwardly having lateral projections 16, reaching inwardly toward each other. These extensions are rounded and form pintles for the hinge hooks 17\*, extending down from the cone plate, passing on the front side of the pintles and between them and the cone stand around beneath the said pintles and about all the way up the other side, forming approximately an extended semi-circular hook, and on these hinge hooks lateral studs 14, are formed, extending longitudinally of the pintles to bear thereon on the side opposite to that embraced or borne upon by the central curved parts of the hooks. This construction holds the hooks in place and allows the chimney to be swung entirely back to rest on the table surface or other support of the lamp, without becoming detached

from the base or cone stand as the case may be, and it will be seen that this feature is especially desirable and it may be said necessary where the lamp is light and is incapable of sustaining the chimney when tilted partially to the rear. The hook is, as before stated, substantially semi-circular and it together with the lug thereon, almost entirely encircles the pintle. Said pintle is cut away on its rear side at the point 14<sup>x</sup> where the lug would bear on the rounded surface, were the chimney swung still farther down and below the table surface or the lower plane of the base. When so swinging the lug 14, comes over this cut away part and drops therein, the hook is then free to be removed from the pintle, the chimney then being in inclined position relatively to the base. It may be swung back in this position either by raising the base slightly from the table, or by moving the lamp to the edge of the table. The cut away part, it will be noticed is specially arranged in relation to the lug and hook that is to say, it is in rear of the axial line of the pintle, and the surface extends in inclined position downwardly and forwardly, so that the chimney must be turned to the extreme inclined position mentioned, below the plane of the base, before the lug can drop into the said cut away part. In Figs. 4 and 5, is shown a modified form of hinge in which the hooks 7<sup>x</sup> are a part of the frame or base, the handle frame in the present instance; and the pintles are on the cone plate and comprise a cross bar 8<sup>x</sup> to lie on the rear side of the said hooks, this bar being confined against displacement by a lug 9<sup>x</sup> on the handle bearing on the rear of the cross bar. As in the previously described form of the hinge the pintle is cut away at one part so that the hooks and pintles can be disengaged when the chimney is thrown back at a certain angle to the base. In the present instance this cut away part is shown at 10<sup>x</sup> on the under side of the pintle bar. The hooks bear laterally against the shoulders or lugs 11<sup>x</sup> until the chimney has been swung back at the proper angle so that the end of the hook comes opposite the cut away part and then by a lateral movement of the chimney the pintle bar is moved lengthwise through the hooks and the parts disengaged. It will be understood that this form of hinge may be used on the cone stand if desired or the form previously described may be on the handle and this handle may be sprung into place; to this extent the parts are interchangeable. The handle 10, has its upper end bent down, and this end 11, is enlarged and bifurcated or grooved transversely of its end. The said groove has a curved bottom and this end is adapted to the lugs 12, projecting up from the rear edge of the base. The bearing surface between these lugs is curved as well as the seat 13, at the end of the handle and when the handle is in place, the curve of the bearing and the groove will hold the handle securely against the lat-

eral displacement. The handle is secured by being sprung into place, the lower end being bent to pass beneath the bottom of the base and having a pin to fit a hole or socket in said base. As shown in dotted lines at 20, the said handle may be sprung into place so that its upper end will engage the upper part of the stove while its lower end will engage the lower part and thus it will serve as a connection between them.

What I claim is—

1. In an oil stove the base and the cone stand, said parts being sprung into connection with each other, substantially as described.

2. In combination, the base having a bead or flange and the cone stand having the hook projections or feet to connect with said flange, the connection being formed by springing one part into the other, substantially as described.

3. In combination, the base having an upwardly flaring flange, and a cone stand supported on said flange, one of said parts being sprung into connection with the other, substantially as described.

4. In combination, the base having the upwardly flaring flange, the cone stand and the laterally extending feet sprung into connection with said flange, substantially as described.

5. In combination, the cone plate, the drum shell having perforations at its ends, the connecting plate between the ends of the drum shell, and the projections on the said plate adapted to the openings in the drum shell, substantially as described.

6. In combination, the cone plate, the drum shell having perforations at its end, and a connecting plate having hooked shaped projections, substantially as described.

7. In combination, the cone plate, the drum shell having opening and connecting plate between the ends of the drum shell having integral projections, substantially as described.

8. In combination, the base or cone stand and chimney, the hinge connection between them consisting of the hooks and pintles engaging each other with lugs or bearing portions arranged to hold the hooks and pintles together until the chimney is swung to a certain point, said pintles having cut away portions to receive the said hooks to permit the detachment thereof from the pintles substantially as described.

9. In combination, the base or cone stand, the chimney and the hinge connection between them consisting of the pintle bearings on the cross bar 8<sup>x</sup> having shoulders and cut away portions and the hooks engaging said bearings, substantially as described.

10. In combination, the base or cone stand, the chimney and the hinge connection between them consisting of the cross bar 8<sup>x</sup> having the shoulders and cut away parts forming pintle bearings, the hooks engaging said pintle bearings and the lug 9<sup>x</sup> bearing

on the cross bar to hold the same in position engaging the hooks, substantially as described.

11. In combination, the cone stand or base, 5 the chimney and the hinge connection between comprising the hooks and the pintle bearings having shoulders and cut away portions, said cut away portions being arranged to permit a lateral movement of the pintles 10 through the hooks in the direction of the axis of the hinge only when the cut away portion is made to align with the hinge hooks, substantially as described.

12. In combination the cone stand or base, 15 the chimney the handle and the hinge connection comprising the pintles and hooks or

bearings therefor one of said hinge portions being formed with the handle, substantially as described.

13. In combination, the cone stand or base, 20 the chimney the handle and the hinge connection comprising the cross bar 8<sup>x</sup> on the chimney carrier and the hooks 7<sup>x</sup> and bearing 9<sup>x</sup> on the handle engaging said cross bar, 25 substantially as described.

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

HARLAN P. WILDER.

Witnesses:

WM. H. WILDER,  
H. M. GATES.