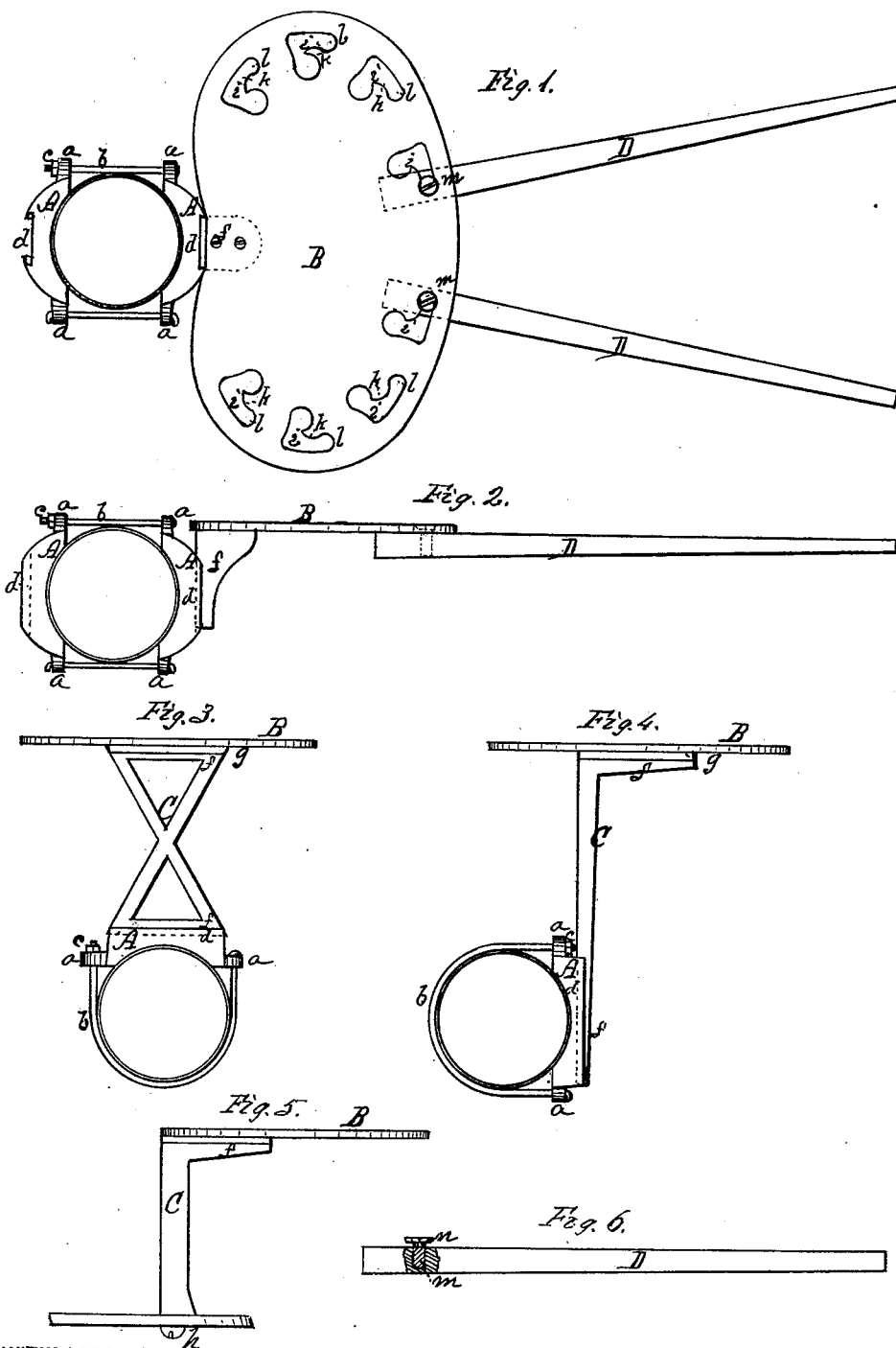


H. D. SWAIN & D. W. WELTON.
Stove-Pipe Shelf.

No. 220,261.

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WITNESSES
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UNITED STATES PATENT OFFICE.

HOSEA D. SWAIN AND DAVID W. WELTON, OF CONCORD, NEW HAMPSHIRE.

IMPROVEMENT IN STOVE-PIPE SHELVES.

Specification forming part of Letters Patent No. **220,261**, dated October 7, 1879; application filed July 26, 1879.

To all whom it may concern:

Be it known that we, HOSEA D. SWAIN and DAVID W. WELTON, of Concord, in the county of Merrimack and State of New Hampshire, have invented certain Improvements in Shelves and Shelf-Supports; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a top view of the shelf and support applied to a vertical stove-pipe or other cylinder; Fig. 2, a side view of the shelf and support applied to a horizontal pipe or cylinder; Fig. 3, a side view corresponding with the view in Fig. 2, but showing the construction and arrangement of the parts when the shelf is elevated above the horizontal pipe and still supported thereby; Figs. 4 and 5, views of modified constructions; Fig. 6, view of part detached.

Like letters designate corresponding parts in all of the figures.

Our invention consists in an improved shelf-support adapted to be attached either to a vertical or horizontal pipe, column, or cylinder, or to a vertical wall or plane horizontal surface; in an improved shelf adapted to be attached to the improved support in all positions thereof, and to receive and support projecting arms for drying or other purposes, or for furnishing further supports for flower-pots or other articles; and in the construction and combination of such projecting arms with the shelf.

For the attaching-support we form a curved band, A, with flanges *a a* at the respective ends. The curvature of the middle part is to be of a diameter nearly or exactly suited to that of the pipe or cylinder to which it is designed to be attached, and its length is less than half of the circle of which it is the arc. Each flange *a* has a screw-hole through it, and the two flanges on the same side, as the concave of the arc, are flat and in the same plane, so that they will rest firmly against any plane surface. For a stove-pipe or other cylindrical support, two of these supporting-bands are used together, one on each side and opposite to the other, as shown in Figs. 1 and 2. The adjacent flanges of the two are then connected together, one by a simple hook-link or its equivalent, and the

other by a bolt, *b*, passed through the holes and tightened by a nut, *c*, till the two bands are immovably or securely clamped around the pipe or cylinder. At one end of each pair of bands there may be a self-locking or counter-hook construction, as shown in Fig. 2. For a wall or table support only one band is required, this being attached simply by two screws passed through the flanges into the wall or horizontal support. If the support is a metallic one—such as the top plate of a stove—holes may be drilled through the same and two small screw-bolts used to attach the flanges of the band-support thereto.

For the purpose of connecting a shelf, B, with the band-support, we form on the latter two projections, with a space between in the shape of a tapered or wedge-shaped groove or socket, *d*, to receive a tongue, *f*, of corresponding shape and size, so that by simply slipping the tongue into the socket it is securely held there, and may at any time be disconnected by simply drawing it out of the socket.

For a vertical pipe or cylinder, as shown in Fig. 1, the socket extends transversely across the band, the tongue of the shelf being vertical and at the rear edge, and extending downward from its under side sufficiently to give it sufficient strength of support. For a horizontal pipe or cylinder, as shown in Fig. 2, the socket extends lengthwise of the band, the tongue of the shelf being the same as for the horizontal pipe. This arrangement, however, places the shelf at one side of the pipe, with a considerable tendency to slip the band-supports around the pipe.

In order to bring the shelf over the pipe and to raise it above the same as much as desired, we employ an intermediate connecting-standard, C, Fig. 3, of the form shown, or any other suitable to the purpose. This standard has a tongue or form at each end, one of which fits the socket in the band-support, brought over the pipe, whether the socket is longitudinal or transverse to the band. The other dovetail tongue or end of the standard fits a dovetail socket, *g*, formed upon the under side of the shelf B, as shown in the same figure. Instead of the form shown in Fig. 3, it may have the bent form shown in Fig. 4, so as to hold the shelf away from a position immediately

over the pipe; or the standard may have the bent form shown in Fig. 5, the lower end having a screw-socket to receive a screw, *h*, passed up through a hole in the stove-plate or other support.

It is obvious that each band-support may have more than one socket, and each shelf more than one tongue; but one is sufficient for ordinary sizes.

The shelf B has any suitable form—such as that shown in Fig. 1, or otherwise. It has a set of holes, *i i*, through it at proper intervals apart, and not far from the outer edge. There is a narrower notch or slot, *k*, extending from the main aperture, straight or curved, and preferably, though not necessarily, slightly enlarged at the termination *l*. The purpose of these apertures is to furnish bearings for a number of arms, D D, which are to extend outward from the shelf, for supporting articles to dry or any other convenient use. Each arm D has a wood-screw, *m*, partially inserted transversely into it near its inner end, substantially as shown in Fig. 6; and there may be a washer, *n*, on the screw to enlarge the bearing of the head. The arms are fixed beneath the edge of the shelf, as shown in Figs. 1 and 2, the head or washer of each screw being first passed up through the main part of an aperture, *i*, in the shelf, and then the shank of the screw is moved laterally through the slot or notch *k* into its terminal enlargement *l*, where it finds a bearing, which not only supports the arm, (the head of

the screw not pulling through the slot,) but allows the same to turn freely on its screw as a pivot. Thus each arm has a free turning movement to bring it out into position or push it back out of the way, and may be entirely removed from the shelf.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The curved shelf-support A, adapted, substantially as described, to be applied to either a vertical or horizontal pipe or cylinder, or to a vertical or horizontal plane surface, and provided with an attaching-socket, *d*, substantially as and for the purpose herein specified.

2. In combination with the support A and shelf B, an intermediate standard, C, substantially as and for the purpose herein specified.

3. A shelf, B, provided with holes *i i*, with side notches *k k*, in combination with arms D D, provided with screws *m m*, substantially as and for the purpose herein specified.

4. The arms D D, provided with wood-screws *m m* and washers *n n*, adapted to enter the holes *i i* in the shelf B, and to hold with the notches *k k* of the said holes, substantially as herein specified.

The foregoing specification signed by us this 9th day of June, 1879.

HOSEA D. SWAIN.
DAVID W. WELTON.

Witnesses:

THOS. M. LANG,
J. H. RIGNEY.