No. 637,908. Patented Nov. 28, 1899.

A. J. VROMAN.

DUST PAN.

(Application filed May 8, 1899.)

(No Model.)

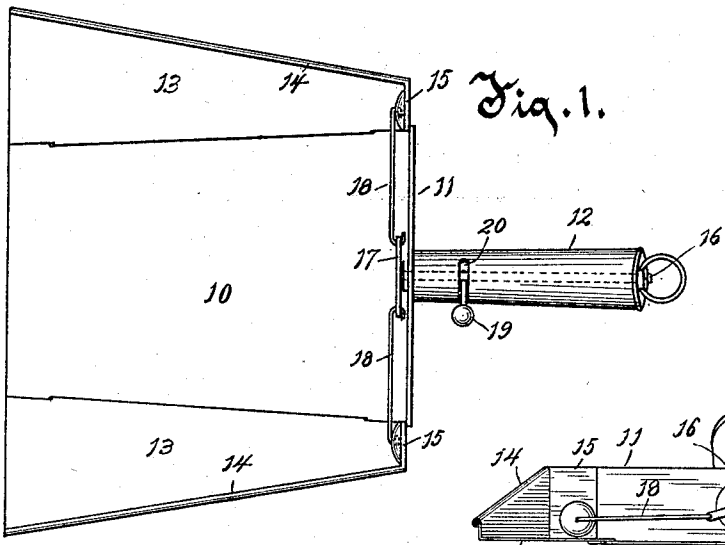


Fig. 1.

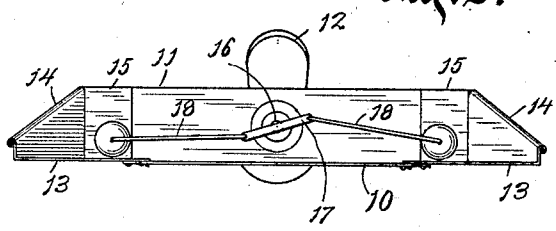


Fig. 3.

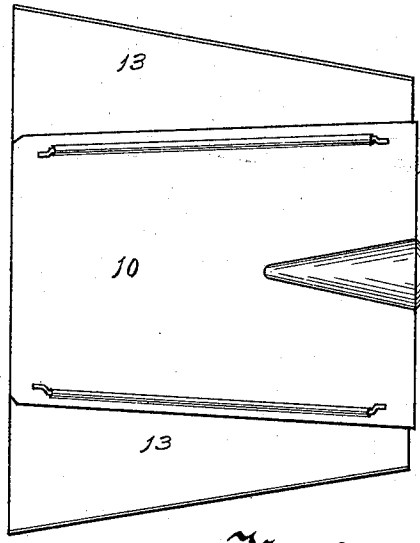


Fig. 2.

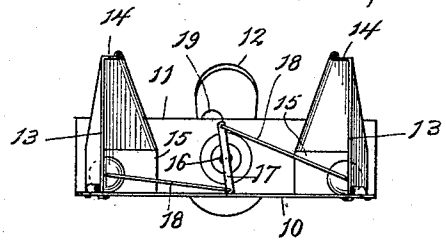


Fig. 5.

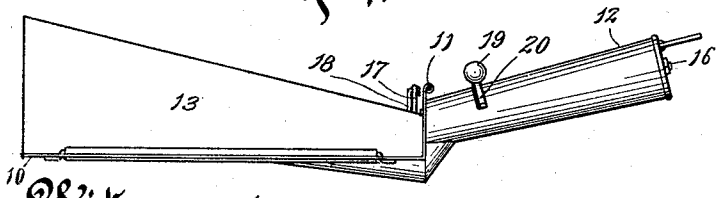


Fig. 4.

Witnesses.
A. N. Keeney.
Anna C. Faust.

Inventor.
Alonzo J. Vroman
By Benedict & Morsell
Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALONZO J. VROMAN, OF BLACK RIVER FALLS, WISCONSIN.

DUST-PAN.

SPECIFICATION forming part of Letters Patent No. 637,908, dated November 28, 1899.

Application filed May 8, 1899. Serial No. 715,929. (No model.)

To all whom it may concern:

Be it known that I, ALONZO J. VROMAN, of Black River Falls, in the county of Jackson and State of Wisconsin, have invented a new and useful Improvement in Dust-Pans, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

Dust-pans as commonly made for using in household economy are of sheet metal, having a substantially flat bottom of considerable extent, a rear wall to which a handle is affixed, and side walls, the bottom being constructed with a thin laterally-elongated front edge without a wall, the whole pan being rigid and non-flexible throughout. The bottom of such pan, especially at the front edge, is usually considerably wider than the holes (for pots, kettles, &c.) in the tops of stoves and ranges in common use. This construction renders the ordinary dust-pan inconvenient in use in discharging dust and foreign matter taken up thereon into stove-holes or ordinary dust-receptacles, such as pails or analogous utensils.

The object of my invention is to provide a dust-pan which while having a wide and ample edge and bottom for taking up dust and foreign matter thereon is adapted to be so folded up as to form a comparatively narrow chute at the front edge, exceedingly convenient for readily and completely discharging the dust and matter thereon into a stove-hole, dust-pail, or other household utensil having a receiving-aperture less wide than the extended front edge of the ordinary dust-pan.

My invention consists of the pan and its parts and combinations of parts, as herein described and claimed, or their equivalents.

In the drawings, Figure 1 is a top plan view of my improved dust-pan. Fig. 2 is an under side view of the improved dust-pan. Fig. 3 is a front view of the same pan. Fig. 4 is a side elevation of my improved dust-pan, the wings or extensions being turned up in the manner they are to be folded or turned up for conveniently discharging dust therefrom into a stove-hole or similar contracted aperture. Fig. 5 is a front edge elevation of the dust-pan, its wings being folded inwardly, as shown in Fig. 4.

My improved dust-pan is constructed chiefly of sheet metal. The bottom 10 is provided with a rigid upturned rear wall 11 and a hollow handle 12, secured rigidly centrally to the rear wall 11 and projecting therefrom substantially at a right angle thereto. The rigid centrally-disposed bottom 10 of my improved dust-pan is without rigid side or front walls; but wings or extensions 13 13, one at each side, are hinged thereto along its respective side edges, these wings being respectively provided with a side wall 14 and a rear wall 15. The rear walls 15 are preferably of substantially the same height and disposition with reference to the bottom of the pan as the rear wall 11. The bottom 10 is also preferably formed to taper inwardly slightly at its sides, so that the front edge of the bottom 10 is preferably a little narrower than the rear edge at its junction with the rear wall 11. Those portions of the wings 13 that form parts of the bottom of the pan when the wings are extended, as shown in Figs. 1, 2, and 3, are preferably made considerably wider at the front edge than at the rear edge, so that the entire extended front edge of the pan when the wings are thrown out laterally is considerably longer than the rear edge and walls 11 and 15 together are in the complete pan. This provides a wide or long front edge of the pan for taking up dust thereon from a floor; but when the dust is to be discharged from the pan the wings 13 are folded upwardly and inwardly, as shown in Figs. 4 and 5, and thereby the bottoms of the wings 13 become side walls to the main bottom 10, forming a comparatively narrow chute or edge for discharging the dust and foreign matter therefrom, which, by the uptilting of the wings, will fall from the wings onto the main bottom 10. For conveniently uptilting the wings 13 and extending them again I provide a rock-shaft 16, mounted in the handle 12 and rear wall 11, to the front end of which rock-shaft a cross-bar 17 is secured, and the extremities of this cross-bar are connected by rods 18 18 pivotally to the rear walls 15 of the wings 13 at points somewhat above the hinging of these wings to the bottom 10. It will be understood that by oscillating the rock-shaft 16 the wings 13 13 can be swung upwardly into the infolded positions shown in Figs. 4 and 5 and thrown outwardly again into the extended positions

shown in Figs. 1, 2, and 3. As a convenient means for oscillating the shaft 16 I provide a radially-projecting lever-handle 19, which is advisably located near the inner end of the shaft 16 and projects through a laterally-extending slot 20 therefor in the handle 12. At this locality and in this position the lever-handle 19 can be readily shifted by the thumb of the hand grasping the handle 12. The construction and disposition of the parts is such that when the wings 13 are extended in the position shown in Fig. 3 the cross-bar 17 is tilted to a position beyond the center of motion of the rock-shaft or to such a position with reference to the rock-shaft that any effort or attempt to uptilt the wings 13 by lifting on them will produce such a push on the rock-shaft as to force the lever-handle 19 firmly against the end wall of the slot 20, and thereby prevent the uptilting of the wings 13.

What I claim as my invention is—

1. A dust-pan, comprising a central main bottom and rear wall, and thereto hinged laterally-extending and uptiltable side wings provided with side walls.

2. In a dust-pan, a central bottom and rear wall, and laterally-extending side members hinged to the central bottom along converging lines so as when the side members are uptilted to form a trough or chute narrowing toward the front edge.

3. In a dust-pan, the combination of a main bottom, wings hinged to the main bottom at the sides thereof, and means for synchronously uptilting and extending the wings.

4. In a dust-pan, the combination with a central main bottom, a rear wall secured rigidly to the main bottom, and a handle projecting rearwardly from the rear wall, of wings hinged to and extending laterally from the main bottom, a rock-shaft in the handle provided with a cross-bar, and rods connecting the arms of the cross-bar respectively to the hinged wings.

5. In a dust-pan, the combination with a central, main bottom, a rear wall permanent on the main bottom, a handle projecting rearwardly from the rear wall, and provided with a lever slot and wings hinged to the sides of the main bottom, of a rock-shaft in the handle, a cross-bar on the rock-shaft, rods connecting the arms of the cross-bar to the side wings, and a lever-handle projecting radially from the rock-shaft in the slot in the handle, the construction and disposition of the parts being such that when the wings are extended the parts are locked in position against accidental displacement.

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

ALONZO J. VROMAN.

Witnesses:

T. S. FLOYD,

A. A. RANDALL.