

UNITED STATES PATENT OFFICE.

WILLIAM S. McCAY, OF GRAND RAPIDS, MICHIGAN.

DUST-PAN.

SPECIFICATION forming part of Letters Patent No. 502,235, dated July 25, 1893.

Application filed October 18, 1892. Serial No. 449,243. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. McCAY, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Dust-Pans; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in that class of dust pans, which are provided with a pivoted bail, and its object is to provide the same with certain new and useful features hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings in which—

Figure 1 is a perspective of a dust pan, with a device embodying my invention, attached; Fig. 2 a vertical section of the same on the line 2—2 of Fig. 1; Fig. 3 an enlarged detail in horizontal section on the line 3—3 of Fig. 1; and Fig. 4 a detail showing a modified construction.

Like letters refer to like parts in all of the figures.

A is a dust pan of the usual form, having a bail with arms C C, which embrace the dust pan, and at their lower ends are turned inward at right angles, and passing through the sides of the dust pan, are pivoted to the same at G G; said inwardly turned ends of the bail arms also pass through plates D, which plates are secured to the arms above the bend by lugs E E, which are inclined toward each other, and are at opposite sides of said bail arms and engage the same; said arms where they engage these lugs are first passed between said lugs, and then swaged laterally by being flattened, which spreads them beneath the adjacent inclined sides of said lugs. In like manner a downwardly and rearwardly curved arm F is attached to said plate, near the rear corner thereof by the lugs E' E', which arm is also further secured to said plate by bending and passing through an opening in the plate, and being riveted on the opposite side of the same at F', as in Fig. 3, or a forwardly inclined pawl F' may be pivoted to said plate near one end of the lower angles of the same, and engaging the floor at its lower end, will

serve a like purpose, being engaged and retained from turning out of position as the pan is lifted from the floor by the lug E". At each side near the front edge of the pan, a spring or flexible arm B is attached, which is extended rearward and parallel to the side of the pan, curving slightly upward at the middle, and having its free end near the rear corner of the pan, and normally in the plane of the same; said spring engages the lower edge of the plate D where it passes the same, which plate has a broad base, the angles of which are somewhat below and at each side of the bail pivot, when the bail is vertical. As the bail is inclined either way from this vertical position, these lower angles of the plates D depress the springs B at their free ends, thus raising the rear of the dust pan, and bringing its forward edge in close contact with the floor, in proper position to receive the sweepings from the same. When the bail is inclined toward the forward end of the pan, the arms F are raised from the floor and do not act, but when the bail is inclined toward the rear of the pan, said arms F engage the floor and slide the pan back a short distance, which uncovers anything that may have passed under the edge of the pan, and places the same in proper position to receive it. In case the pawls F' are used, they will operate if the bail is vibrated either forward or back of the middle position, and I prefer the use of the same. The pan may thus be intermittently moved backward by vibrating the bail. The pressure of the springs B against the lower sides of the plates D, holds the bail vertical when released, and when the device is raised from the floor, the pan by the same action is held at right angles to the bail, and will not turn on its pivots, and spill its contents. For packing or other purposes the bail can be turned in either direction and brought in the same plane with the pan bottom.

What I claim is—

1. In combination with a dust pan, a bail having arms pivoted to the sides of said dust pan, a spring or flexible arm engaging said bail, and the floor and operating to raise the rear of the pan when depressed by the bail, and to automatically restore said bail to a vertical position, substantially as described.

2. In combination with a dust pan, flexible arms, or springs at each side of the same, engaging the floor at their movable ends, a bail having arms embracing and pivoted to the sides of said pan, plates attached to said bail, having angles engaging and deflecting said arms, and automatically restoring said bail to a vertical position, substantially as described.
3. In combination with a dust pan, a bail pivoted to the same, having an arm, or pawl attached, projecting below the pivot and engaging the floor to move the dust pan backward and intermittently in one direction only as the bail is vibrated on said pivot, substantially as described.
4. In combination with a dust pan, flexible arms or springs, a pivoted bail engaging the same, and depressing the free end thereof, when turned away from a vertical position, and an arm, or pawl attached to said bail, and engaging the floor, and moving the dust pan intermittently in one direction only, substantially as described.
5. In combination with a dust pan, flexible arms, or springs attached at each side and near the front thereof, and having their free ends near the rear thereof, a bail having arms embracing and pivoted to the sides of said dust pan, plates attached to the bail near the pivots thereof, having angular bases engaging said springs, and curved arms attached to said plates at their upper ends and engaging the floor at their lower ends, substantially as described.
6. In a dust pan in combination with a bail, having arms bent inward at right angles to form pivots, a plate through which the inward bent part of said bail passes, and lugs on said plate at each side of the bail, having inclined adjacent surfaces and laterally extended portion of said bail between said lugs, the side of which engage the inclined surface of the same, and springs attached at one end to said pan, vertically movable and engaging the floor at their other ends, and intermittently engaging said plates, substantially as described.
- In testimony whereof I affix my signature in presence of two witnesses.
- WILLIAM S. McCAY.
- Witnesses:
LUTHER V. MOULTON,
LOIS MOULTON.