

W. E. COATS.
DUST PAN.
APPLICATION FILED SEPT. 8, 1913.

1,106,282.

Patented Aug. 4, 1914.
2 SHEETS—SHEET 1.

Fig. 1.

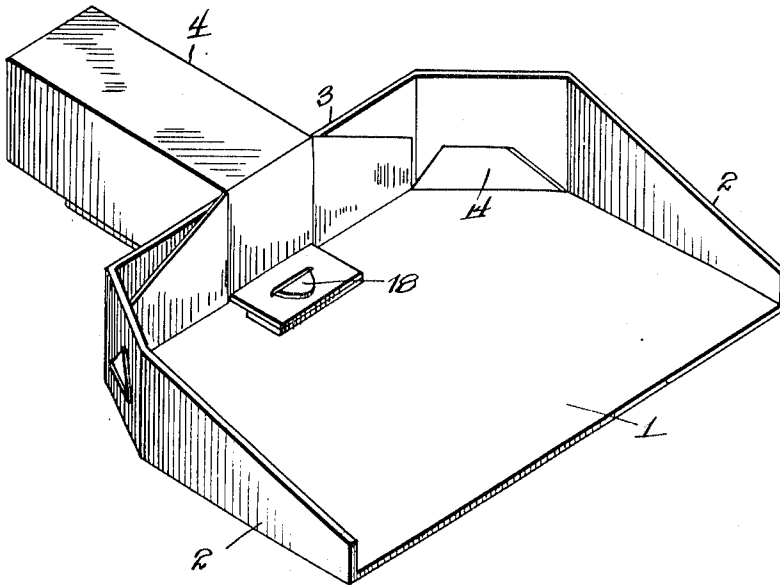
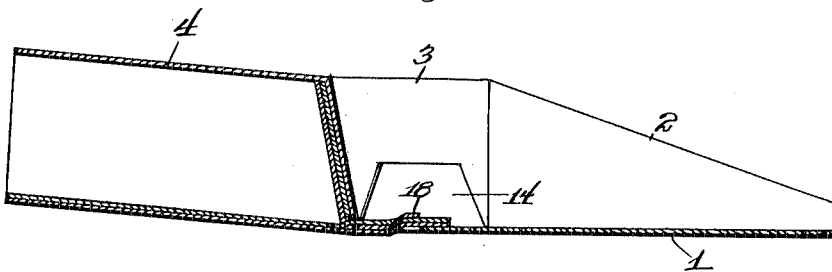


Fig. 2.



Witnesses

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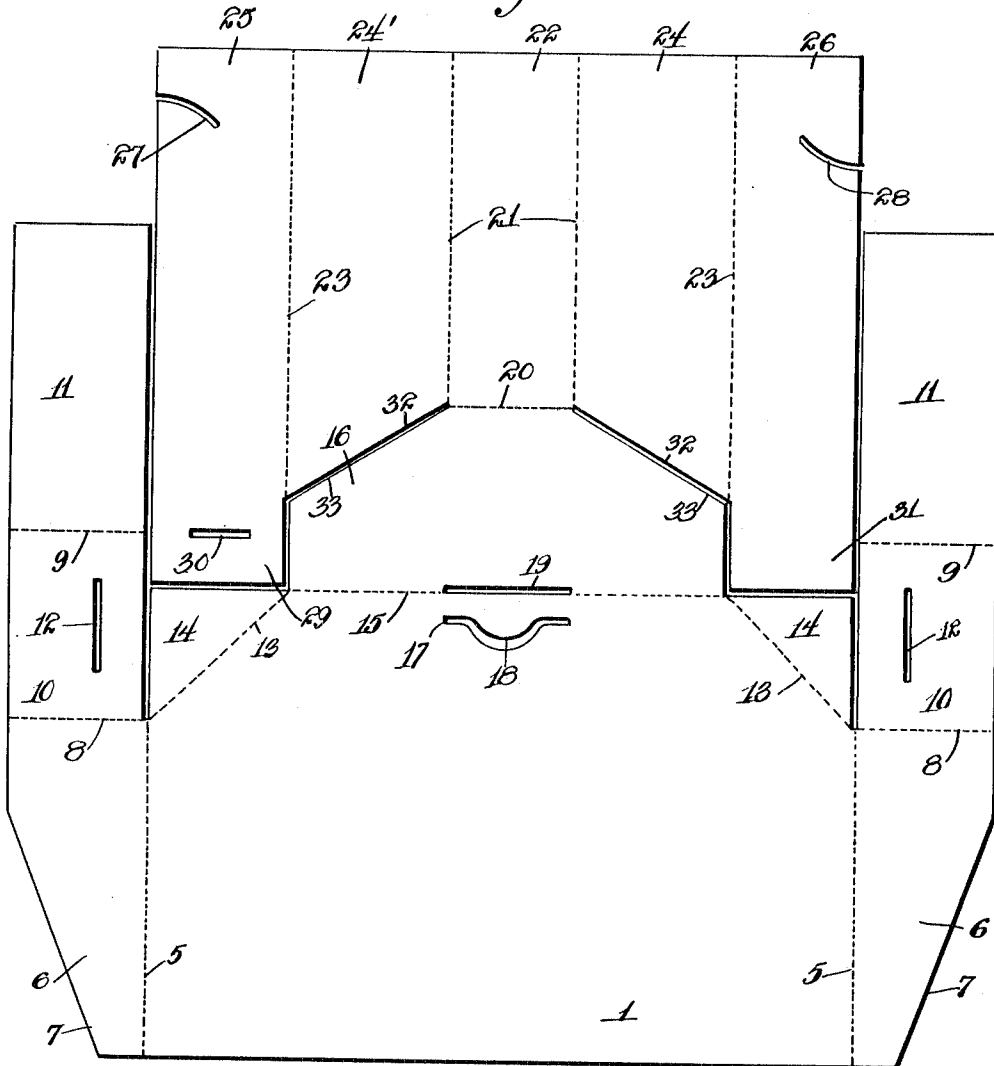
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2 SHEETS—SHEET 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

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DUST-PAN.

1,106,282.

Specification of Letters Patent.

Patented Aug. 4, 1914.

Application filed September 8, 1913. Serial No. 788,636.

To all whom it may concern:

Be it known that I, WILLIAM E. COATS, a citizen of the United States, residing at Firesteel, in the county of Dewey and State of South Dakota, have invented certain new and useful Improvements in Dust-Pans, of which the following is a specification.

This invention relates to improvements in dust pans and one of the objects is to provide a construction whereby the pan may be formed or shaped from an initially scored or prepared carton.

While it is one of the objects of my invention to provide a dust pan which may be formed of card-board or other form of relatively stiff paper, I desire it to be understood that my main object is to provide a construction whereby any kind of material that may be readily bent, may be employed.

A further object is to provide a dust pan of cheap construction so that it may be serviceable in connection with advertising promotion schemes and where it may be discarded after one usage, without any great cost, under conditions of use where sanitation is a prime desideratum.

Other objects and features of the invention will be more fully described in connection with the accompanying drawings and will be more particularly pointed out and ascertained in and by the appended claims.

In the drawings:—Figure 1 is a perspective view of a dust pan embodying one form of my invention. Fig. 2 is a central longitudinal sectional view through the same. Fig. 3 is a plan view of the carton from which the pan is formed.

Like characters of reference designate similar parts throughout the different figures of the drawings.

In the embodiment shown, I will first briefly describe the construction of the pan.

The pan base is indicated at 1, and is provided with sides 2 and a back 3. A handle 4 extends from the back 3 and the hereinbefore numerals are employed to designate the parts as a whole.

Referring to Fig. 3, the pan base 1 is scored at 5 to form the sides or side flaps 6, the upper or outer margins 7 of which taper from their rear ends toward their front ends. The side flaps 6 extend beyond the rear ends of the scores 5 and they are transversely scored at 8 and 9 to form corner back sections 10 and supplemental back sections

or back flaps 11. The corner sections are slitted at 12 to receive side locking flies, which in the present construction, are triangular in shape and are formed by score lines 13 and are indicated at 14. The score lines 13 intersect score lines 5, and a score line 15, which latter extends along the back of the pan base to form a pan back 16. In the pan base 1, I provide a tongue slot 17 having a locking tongue 18, and at the juncture of the pan back with the pan base, and preferably at one side of the score line 15, I provide a retaining slit 19.

The pan back is provided with an extension whereby a hollow handle may be shaped up, and as shown, the pan back is scored at 20 to form the fold or bend between the handle and the pan back. The extension on the pan back is longitudinally scored at 21 to form a top handle section 22. Said extension is scored at 23 to form side handle sections 24. The score lines 23 are disposed inwardly of the margins of said extension so as to provide marginal flaps 25 and 26 adapted to be folded to form the bottom section of the handle. The flaps 25 and 26 are provided with locking slits 27 and 28, respectively, which are preferably of arcuate form so as to lock the flaps 25 and 26 in overlapping relation. The pan end 29 of the handle section 25 is provided with a tongue-engaging slit 30 and the pan end 31 of the flap 26 constitutes a retaining end which is adapted for projection through the tongue slot 17.

Having now described the specific construction of the carton, I will now describe one manner of folding or shaping the same to form a dust pan.

Assuming that the carton is in the position shown in Fig. 3, the pan back will be bent up to the position shown in Fig. 1, and the handle forming sections will be folded to form a hollow handle, by bringing the bottom sections 25 and 26 into overlapping relation and locking the same together by means of their locking slits 27 and 28. In the manner of fold which I am now describing, the section 26 will be lowermost. Having shaped the handle, the pan end 29 will be inserted through the retaining slit 19 until the tongue locking slit 30 can be brought into locked relation with the tongue 18. Simultaneously with this operation, the retaining pan end 31 will be inserted through the tongue slot 17 so as to assist in retaining the

tongue 18 into locked relation with the slit 30. At this stage of the fold, the shaped handle and back will be locked together but will relatively freely swing on score line 15 as a hinge. In order to lock the handle and pan back, the side flaps 6 will be folded into a vertical position on score lines 5 and the back flaps 11 will be inserted between the pan back 16 and the handle end marginal edges 32 of the side handle sections 24. I preferably make the back flaps of sufficient length so that when they are inserted they will lie in overlapping relation with respect to each other. During, or after insertion of the back supporting flaps into their locking or supporting position, the side locking corners 14 are inserted into the slits 12 of the corner sections 10 so as to hold the back supporting flaps against endwise movement laterally outwardly from between the handle and the pan back.

I preferably incline the upper margins 33 of the pan back corresponding to the inclinations of the margins 32 of the side sections 24 so that no material will be wasted in extending the bottom corners of the side sections 24 toward the pan with respect to the score lines 20. It will be seen, however, that the back supporting flaps 11 provide a pan back of uniform height with respect to the greatest height of the sides so as to afford a full holding capacity for the pan notwithstanding the reduced height of the pan back near the sides thereof. Furthermore, it will be noted that the pan base has a completely smooth and uninterrupted area for receiving the sweepings excepting for the slight projection of the ends 29 and 31 near the pan back, and therefore, a dust pan formed of card-board in accordance with my invention will present practically no more dust or refuse collecting portions than a sheet metal stamped or otherwise formed pan, and I obtain over stamped metal pans, the great advantage of such a material reduction in cost as to make it possible to discard a pan formed in accordance with my invention after one usage, if the conditions make it necessary. It will also be noted that the flap parts are interlocked and sufficiently self-supporting so that they would hold together under any load of contents to which an ordinary dust pan will be subjected. It will also be seen that the use of my invention avoids the expensive operations of enameling and metal painting of dust pans now in use, as the card-board or material may be selected so that its original finish will suffice. Furthermore, while the carton is unfolded, advertising or other printed matter can be readily impressed thereon either by being printed or by embossing operations.

It is believed that the utility and advantages will be fully understood from the foregoing description, and while I have herein

shown and described one specific form of my invention, I do not wish to be limited thereto, except for such limitations as the claims may import.

I claim:—

1. A carton shaped to form a dust pan and comprising a sheet of material laterally scored to form side flaps and each side flap being scored to form back flaps, said sheet being scored to form side locking flaps and a pan back thereby forming a pan base, the sides having slits for engagement with said locking flaps, a handle extension projecting from the pan back and being longitudinally scored to be folded transversely of its longitudinal axis to form a handle, the top of said handle being connected with the pan back at the line of score forming the juncture thereof, and a bottom portion of said handle being locked to the pan base and against the rear face of the pan back, substantially as described.

2. A dust pan formed of a folded sheet of material and comprising a pan base, sides and back, the pan back having an extension scored to be folded into a handle on score lines longitudinally of the axis of the handle, one portion of the handle being locked to the pan base and against the pan back, substantially as described.

3. A dust pan formed of a folded sheet of material and comprising a pan base, sides and back, the pan back having an extension scored off from the upper margins thereof and the extension being scored to form a rectangular handle adapted to be folded transversely of its longitudinal axis to form top side and bottom sections with the handle hinged to the back at the score juncture of the top section with the back, the margins of the side sections abutting the back and the bottom section being locked to the pan base, substantially as described.

4. A carton shaped to form a dust pan and comprising a sheet of material laterally scored to form side flaps, each side flap being scored to form corner sections and back flaps, said sheet being scored to form side locking flaps and a pan back thereby forming a pan base, a handle extension projecting from the pan back and being longitudinally scored to form top, side and bottom handle sections, the bottom handle sections having locking slits for holding the same in overlapping locked relation, said pan back having a retaining slit and said base having a locking tongue and slot, and one of said bottom handle sections having a projecting end for insertion through said retaining slit and provided with a tongue slit for locking engagement with said locking tongue on said pan base, the other of said bottom sections having a retaining end for projection through said tongue slot, said corner sections having slits for engagement with said lock-

ing flaps and the back flaps being disposed between said pan back and said handle, substantially as described.

5 5. A carton shaped to form a dust pan and comprising a sheet of material laterally scored to form side flaps, each side flap being scored to form corner sections and back flaps, said sheet being scored to form side locking flaps and a pan back thereby forming
10 a pan base, a handle extension projecting from the pan back and being longitudinally scored to form top side and bottom handle sections, the bottom handle sections having locking slits for holding the same in over-
15 lapping locked relation, said pan back having a retaining slit and said pan base hav-

ing a locking tongue and slot, and one of said bottom handle sections having a projecting end for insertion through said retaining slit and provided with a tongue slit 20 for locking-engagement with said locking tongue on said pan base, said corner sections having slits for engagement with said locking flaps and the back flaps being disposed between said pan back and said handle, sub- 25 stantially as described.

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

WILLIAM E. COATS.

Witnesses:

G. A. COATS,

ROLAND BAHNSEN.