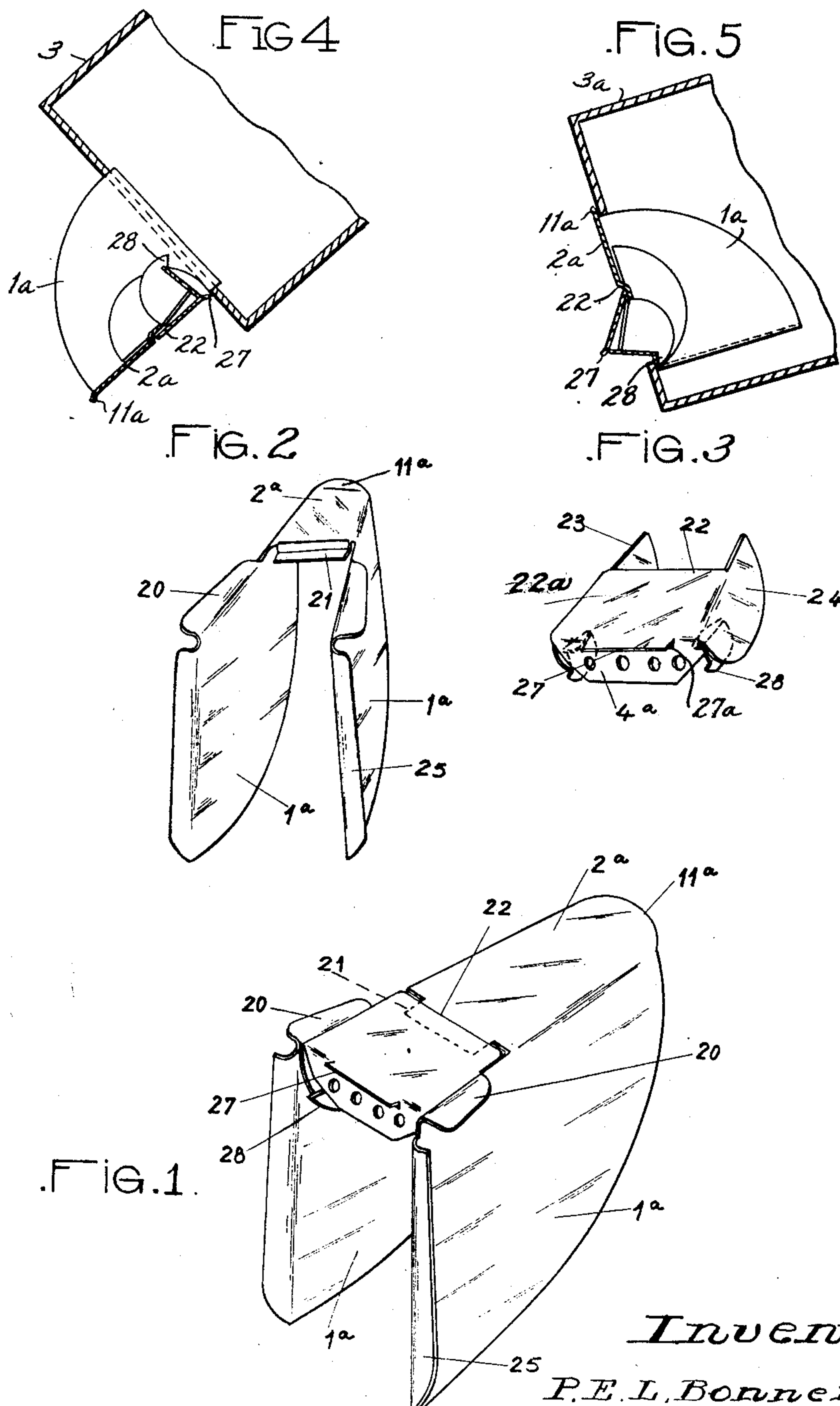


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P. E. L. BONNEFOY  
COMBINED POURING AND SIFTING  
DEVICE FOR POWDERED MATERIAL  
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## UNITED STATES PATENT OFFICE

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COMBINED POURING AND SIFTING DEVICE  
FOR POWDERED MATERIAL

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The present invention relates to improvements in the combined pouring and sifting devices for powdered materials or the like of the type in which the device is permanently set in an aperture of suitable shape arranged in the wall of the container containing powdered products or the like.

The main object of the present invention is to provide a combined pouring and sifting device one end of which is used for pouring by forming a single stream while the other end is used for sifting powdered products or the like by forming a plurality of fine streams.

Another main object of the invention is to provide a device which pivots, according to the desired use either with a relatively large opening angle about a stop-edge opposite to the outlet beak of the pourer or about the outlet beak of the pourer itself with a relatively small angle in order to uncover the sifting device.

Another main object of the invention is to provide a device of the character described wherein the body of the pourer pivoting about the hinge opposite to its outlet beak, carries a pivotable piece adapted to uncover, in the closed position of the pourer, an opening located toward the side of the hinge and provided with means for sifting.

Other objects of the invention will be made clearer by the following description referred to the annexed drawings given herein by way of example and it will be understood that the invention has not to be regarded as limited to the embodiments herein described and represented in the drawings in which:

Fig. 1 is a perspective view of a two-part device according to the invention.

Fig. 2 shows in perspective view the part included in the device shown in Fig. 1 and acting as pourer.

Fig. 3 shows in perspective view the part included in the device shown in Fig. 1 and acting as sifter.

Fig. 4 shows the cross-section of the device shown in Fig. 1 when acting for pouring.

Fig. 5 shows the cross-section of the same device when acting for sifting.

In Figs. 1 to 5 is shown an embodiment of a twined part apparatus.

The pourer illustrated in Fig. 2 comprises an upper wall 2a connecting lateral flanges 1a only over a part of their length.

The end 11a of this upper wall 2a slightly upwardly bent forms the outlet beak of the pourer.

The flanges 1a carry two ears 20 bent at right

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angle toward the exterior and bearing on the upper wall of the container. A flange 21 provided at the internal end of the upper wall 2a forms a hinge support for the part of the apparatus serving as a sifter and which is shown in Fig. 3. The edge 22 of the upper wall 22a of said sifter acting as a hinge is supported by said flange 21 slightly depressed relatively to the upper face of the wall 2a. The flanges 24 of the sifter bent down at 90° act to guide and to ensure the tightness between the two parts of the twined apparatus and bear against the internal faces of the lateral flanges 1a of the main part or pourer.

The pourer and sifter as a whole pivot about the extreme edge of the aperture made in the container in the vicinity of the ledge 27 to act as a pourer and they are guided in this pivoting motion by the upper edge of lugs 25 of the lateral flanges 1a, and by the edge of said aperture cut in the wall of the container, the lugs 25 acting as stops at the end of the movement.

Further the pourer comprises a front wall 4a bent down substantially at a right angle with respect to the upper wall 22a, said front wall being formed with holes for ensuring the sifting effect and with a split 27a having a relatively small width and beginning on the upper wall 22a before the rounding connecting said upper wall with the front wall 4a. The front edge of said split is slightly upwardly bent for forming a ledge 27. Further, the lateral parts of said front wall 4a are backwardly then forwardly bent and their edges are cut out for forming hooks 28 which project forward to said front wall 4a.

The opening of the two part apparatus for use as sifter is obtained by lifting the part provided with perforations with regard to the other forming the pourer by means of the ledge 27 and this part pivots about its flange 22 resting on the flange 21 of the pourer which remains in closed position. The hook-shaped lateral flange 28 of the front wall 4a limits the opening movement by leaning against the internal face of the container. The lugs 23 arranged at the end of the lateral faces 24 opposite to the ledge 27 prevent the dislocation of the hinge between the flanges 21 and 22.

What I claim as my invention and desire to secure by Letters Patent is:

1. In a combined pouring and sifting apparatus for powdered products and the like included in a container on a wall of which is provided an aperture for locating said device, in combination, a pouring device pivotally mounted on the container with a relatively large opening angle, a



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sifting device pivotally mounted on said pouring device with a relatively small angle and adapted for pivoting therewith when said pouring device is pivoted, the pivoting movements of the whole formed by said pouring and sifting devices with respect to the container, on one hand, and of said sifting device with respect to said pouring device, on the other hand, being operated in reverse directions.

2. In a combined pouring and sifting apparatus for powdered products and the like included in a container on a wall of which is provided an aperture for locating said device, in combination, a device for pouring comprising two flanges and a wall for connecting the outer edges of said flanges, said connecting wall being provided with an outlet beak and with a slightly depressed portion opposite to said outlet beak, said flanges and said wall being adapted to guide the powdered product when in operative position, a device for sifting provided with a perforated wall and, at substantially right angle with the latter, a wall for connecting said perforated wall to the connecting wall of said pouring device and supported by said depressed portion, said devices when inoperative bearing on the perforated wall of the container and being located within the latter, means adapted to uncover the perforations of said sifting device by a pivotal movement of little extent of the edge of its connecting wall on said depressed portion, the pouring device remaining in closed position, and means for pivoting in reverse direction till about 90° the whole formed by said pouring and sifting devices with respect to the container.

3. A combined pouring and sifting apparatus, according to claim 2, wherein the pouring device

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is provided with a slightly depressed portion of the connecting wall opposite to the outlet beak for acting as support for the edge of the connecting wall of the sifting device opposite to the perforated wall, wherein said perforated wall is substantially at right angle with respect to the connecting wall of said sifting device and wherein the means for uncovering the perforations of the sifting device comprises a ledge extending the connecting wall thereof above the perforated wall, so that the motion of said sifting device is a pivotal movement about the edge thereof supported by the depressed portion of the connecting wall of the pouring device.

4. A combined pouring and sifting apparatus, according to claim 2, wherein the means for pivoting the outlet beak comprises a slightly projecting ledge extending the connecting wall of the sifting device above the perforated wall and adapted to act as a hinge for the whole apparatus by pivoting movement on the perforated wall of the container.

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