

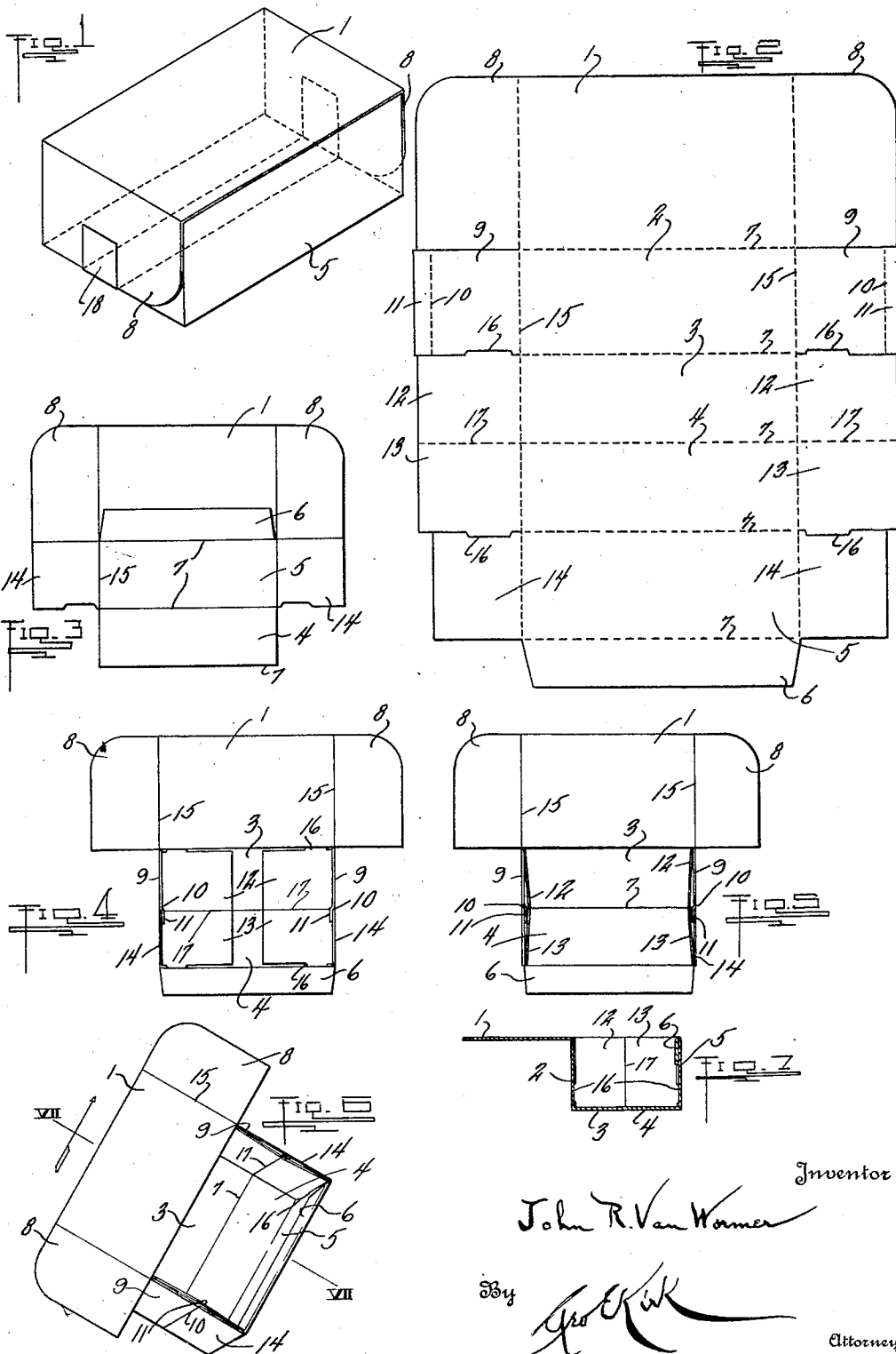
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J. R. VAN WORMER

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KNOCKDOWN BOX

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Inventor

John R. Van Wormer

By

Geo. E. Kirk

Attorney

UNITED STATES PATENT OFFICE

JOHN R. VAN WORMER, OF TOLEDO, OHIO

KNOCKDOWN BOX

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This invention relates to knock down containers of the collapsible box type.

This invention has utility in ready rigid set-up boxes for convenient charging of material thereinto.

Referring to the drawings:

Fig. 1 is a perspective view of a closed box hereunder, in set up position;

Fig. 2 is a blank of the box of Fig. 1;

Fig. 3 is the blank of Fig. 2 as assembled into a knock down box;

Fig. 4 shows the knock down or collapsed box of Fig. 3 with its bottom flattened and its ends set up;

Fig. 5 is the box of Fig. 4 with the end stiffening means elevated against the ends therein;

Fig. 6 is a perspective view of the box of Fig. 4 with the tuck-in additionally anchoring the end set up stiffening means; and

Fig. 7 is a section on the line VII—VII, Fig. 6.

The box hereunder is conveniently made from a single strip of card board comprising top 1, side 2, bottom 3, 4, front side 5, and tuck-in 6. Hinge connections 7 assemble these top, sides, and bottom sections, as well as the tuck in section, in a continuous series. The top 1 is shown as having end extensions 8. The side 2 is provided with box end providing sections 9 terminating in hinge providing portions 10 having minor extensions 11. The bottom sections 3, 4, are provided with end set up stiffening means 12, 13. The front side 5 is shown as provided with end sections 14. These end sections 14 may have the minor extensions 11 sealed therewith on the inner side, thus to leave a flush exterior or end portion of the end sections 9, 14. These extensions or end portions 8, 9, 12, 13, 14, have hinge connections 15 with the intermediate portions of the box blank unit.

The end set up stiffening means are shown as provided with lugs or widening minor extension portions 16 adjacent the hinge mounting 15, with the bottom portions or sections 3, 4. The bottom sections 3, 4, have medial hinge connection 7 and the extensions 12, 13, have medial hinge connection 17 therebetween.

With the box blank assembled into a knock down box by adhesive connecting the minor extensions 11 of the end portions 9 to the end portions 14, the box may be conveniently shipped in flat compact form. In order to bring the box into position for use, the operator merely pulls the side 5 away from the side 2, thus swinging the ends 9, 14, into alignment from the respective sides 2, 5. This operation spreads out the bottom 3, 4, into a common plane so that the end set-up stiffening means 12, 13, as flat on the bottom (Fig. 4) may then be swung upward against the ends 9, 14 (Fig. 5). There is frictional holding of these ends set-up stiffening means due to the widening regions 16 frictionally coacting with the respective sides 2, 5, adjacent the corners 15.

In addition to this stability providing frictional holding of the end set up means, a more positive holding is here more readily effective due to the tuck-in 6 from the side 5, which as folded inwardly against the inward side of the side 5, engages the end set up stiffening means 13 and thus holds such against the end sections 14 and accordingly against collapse toward the bottom of the box. The operator accordingly may at this pulling out of the box and setting up of the stiffening means, then collapse the tuck-in 6 to hold it in tucked in position, thus retaining the box in its full set-up assembly in order that the charging of material thereinto as doughnuts, cookies, or other material may quickly occur. As this operation is completed, the top 1 may be swung toward the side 5 with the extensions 8 thrust between the end set-up stiffening means 13, 12, and the ends 9, 14, or even allowed to fold down on the outside, there to be engaged by sealing strip 18 in effecting final closing in set up position of the knock down box into a rigid charged container.

What is claimed and it is desired to secure by Letters Patent is:

A knock-down box unit of integral blank form having in a series top, back, medially foldable bottom, front and front tuck-in, outer foldable ends hinge connected between the front and back, said bottom having a

scoring for the medial folding thereof and having supplemental inner end set-up stiffening extensions hinged to the bottom to intersect said bottom scoring at said ends and said
5 scoring being continuous past said intersecting to render said ends medially foldable, said stiffening extensions as set up forming with the front and back connecting ends two-
10 ply upwardly extending ends for the box, said tuck-in being independent of the extensions and hinged along the upper edge of the front opposite to the top mounting and foldable into the set-up box against the end set-up stiffening means to hold the inner and outer
15 ends together at the top and thereby lock the box set up against medial folding in of the box bottom, the box top being swingable thereover into box closing position.

In witness whereof I affix my signature.

20 JOHN R. VAN WORMER.

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