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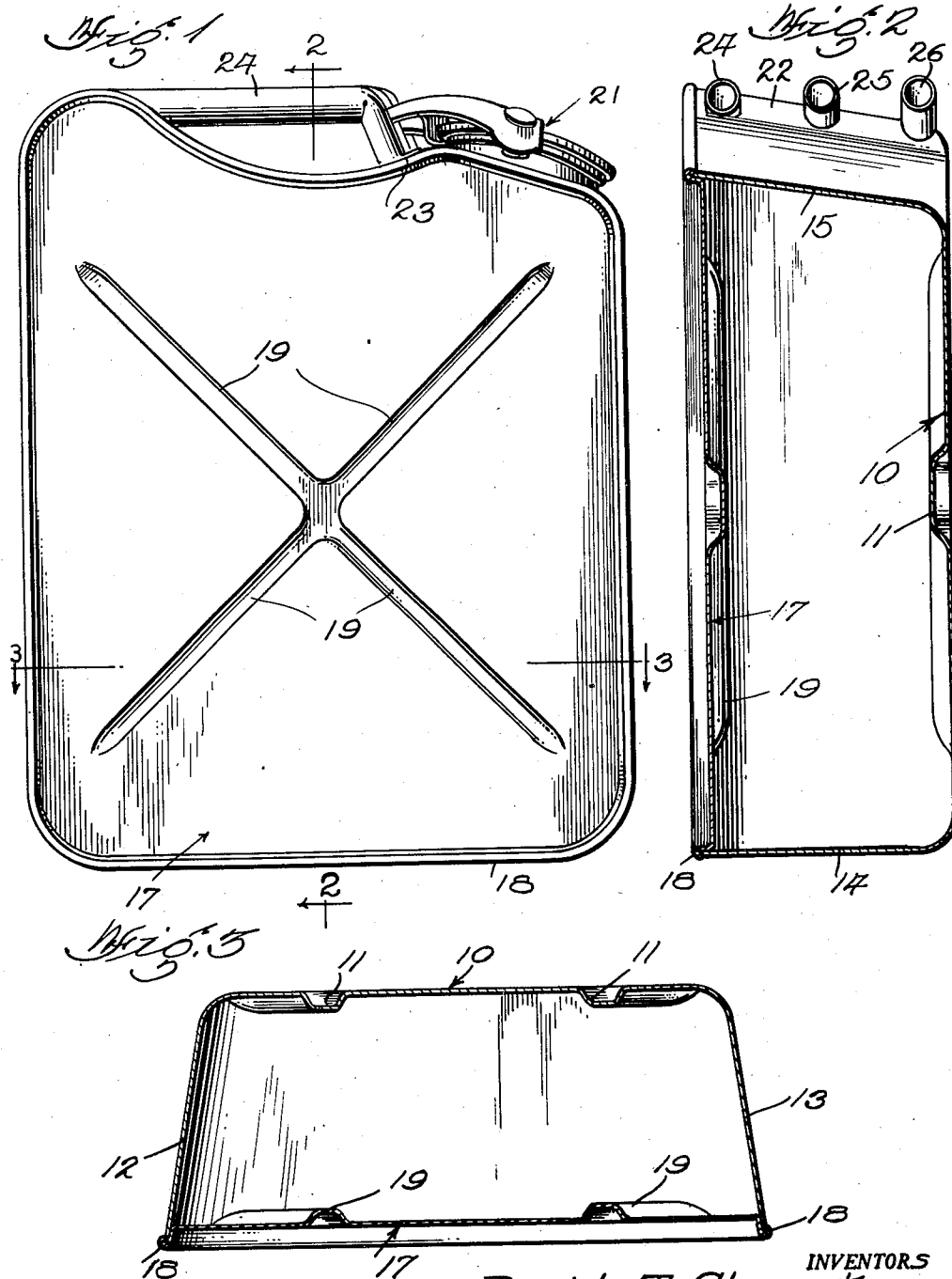
D. T. CLEMENTS ET AL

2,360,849

NESTING CAN

Filed July 13, 1942

2 Sheets-Sheet 1



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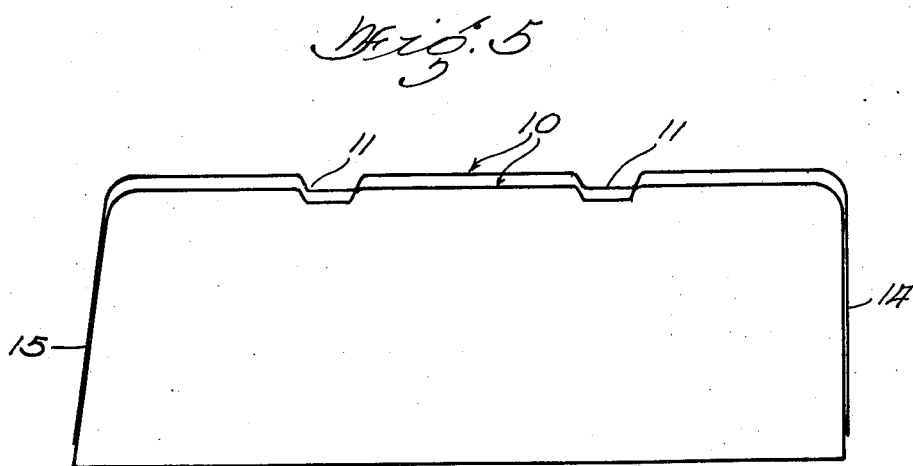
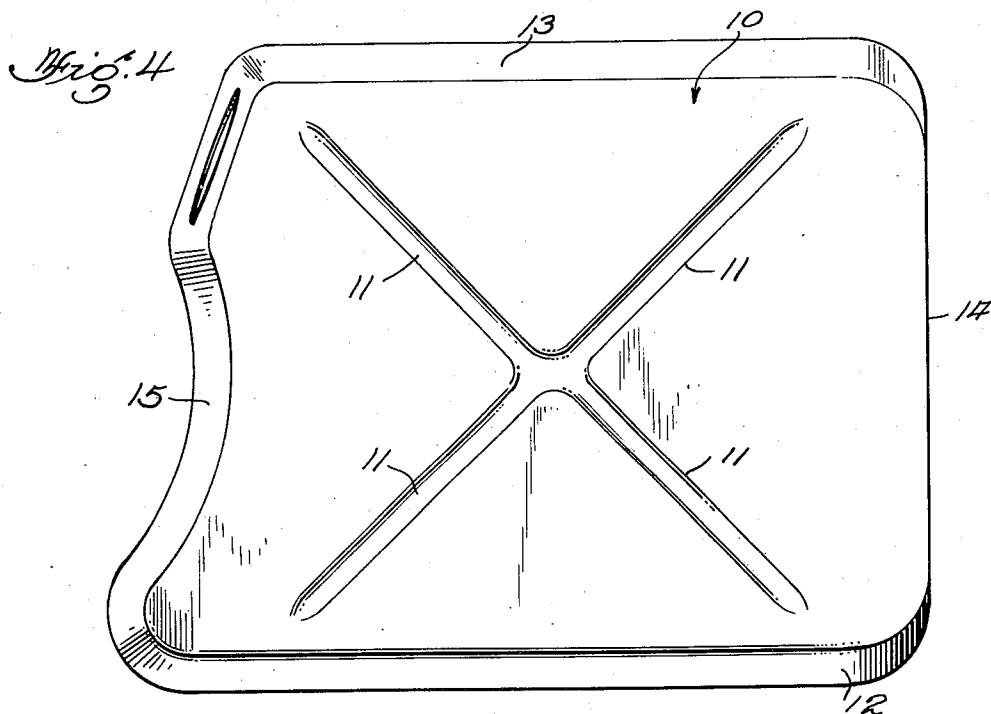
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UNITED STATES PATENT OFFICE

2,360,849

NESTING CAN

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Application July 13, 1942, Serial No. 450,780

1 Claim. (Cl. 220—97)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein, if patented, may be manufactured and used by or for the Government for governmental purposes, without the payment to us of any royalty thereon.

The present invention relates to portable containers for liquids and refers more specifically to sheet metal gasoline or water cans of the general class of containers utilized to refuel motor vehicles and to carry supplies of drinking water by the military forces of the United States and of other nations.

Before describing the details of the structure comprising the preferred embodiment of the present invention, it may be pointed out that in modern military operations it has been found entirely unsatisfactory to attempt to re-fuel mechanized equipment by means of large fuel tanks or tank cars, since these provide an obvious target for enemy gun fire, and in all operations in the zone of combat it is the preferred practice to supply fuel to the various vehicles by means of large numbers of relatively small sheet metal cans, usually in the capacity of approximately five gallons each. This manner of refueling motor vehicles necessarily requires many thousands of fuel containers, and these must, of course, be shipped from the point of manufacture to the area of combat before being put into use. Heretofore the shipping of these containers has presented considerable difficulty since the assembled containers are very bulky and require cubic space greatly in excess of the space which would be required by an equivalent weight of more compact equipment.

In view of this situation it is proposed to provide a container of novel and improved design so constructed and arranged that it may be shipped to some point close to the area of combat in a disassembled condition, the container being so designed and constructed that it may be assembled easily and without the use of any heavy types of machinery, such as large presses that are required to manufacture the unassembled containers.

Before describing in detail the structure illustrated in the drawings of this application, it may be pertinent to point out that the present applicant makes no claim to the general idea of shipping containers in knock-down form and assembling them adjacent to the area in which they are required. On the contrary the subject matter of the present application is limited to the specific details of construction of a container of this type that is well adapted to this plan of operation by reason of certain novel elements

of its design and construction. To appreciate these points of novelty it may be well to mention that the containers of the class with which the present application deals are of quite large size and of relatively thin metal construction, ordinarily having dimensions of approximately 18 inches in height, 14 inches in length, and 6 inches in width, and being formed of thin sheet steel, for example, number 20 USS gauge.

From the foregoing it will be apparent to those skilled in the art, that it is not feasible to draw container blanks having the top, bottom, or end walls at right angles to the sides, since blanks of such formation cannot be nested in telescoping relationship within each other. On the other hand, if the containers are formed with tapering top and bottom walls, the containers will not stand properly on a level surface, nor stack satisfactorily upon each other and will be impractical for the purpose desired.

It is, therefore, the principal object of the present invention to provide a portable container for liquids of novel and desirable formation so designed and constructed that the individual blanks from which each container is formed may be nested in telescopic relation with each other for shipping, but are so formed as to stand in vertical position on a flat horizontal surface.

Referring now more particularly to drawings in which the present preferred embodiment of this invention has been illustrated,

Fig. 1 is a side elevational view of a portable container for liquids constructed in accordance with the teaching of this disclosure.

Fig. 2 is a vertical sectional view taken substantially on the plane of the line 2—2 in Fig. 1.

Fig. 3 is a plan sectional view taken substantially on the plane of the line 3—3 in Fig. 1.

Fig. 4 is a side elevational view of a container blank, and

Fig. 5 is a diagrammatic sectional view of two container blanks in nested position; one blank being telescoped within the other.

The container comprises, in general, an open sided blank which forms the main body of the container and is closed by a side plate. A filling opening and handle complete the structure, as will appear hereinafter.

The container blank consists of a single integral sheet metal stamping having a large substantially flat main portion or base 10. The blank is positioned with the base 10 in vertical position to constitute the side of the container and, if desired, the base 10 may be provided with reinforcing ribs 11 of any desired configuration to

give rigidity to the side of the container. The blank is formed when assembled as a container to include a rear end portion 12, and a front end portion 13, each of which is flared outwardly from the base 10 toward the open portion of the blank. The angular relationship of the flared ends 12 and 13 with respect to the base 10 may vary within limits, but an angle of 98 degrees between the end portions and the base has been found entirely satisfactory. This angle, or flare, permits one of the blanks to be nested in telescopic relationship within another so that large numbers of them may be compactly stacked so that they will require a minimum amount of space in shipping. In order that the blanks may be stacked, it is necessary that the top and bottom, as well as the sides, be so arranged that one blank may be telescoped within another, but it is not feasible to flare the bottom portion of the container, since, if this is done, the container when the parts are assembled will not stand in vertical position and will be subject to accidental tipping which will make it impractical for military use. It is accordingly proposed that the bottom portion 14 when the parts are assembled as a container will lie at a right angle (exactly 90 degrees) with respect to the base portion 10 of the blank, but the portion of the blank that forms the top portion 15 of the container is flared sufficiently so that the individual blanks may be easily nested inside of one another. The angle of flare of the top 15 is variable, but an angle of 100 degrees with respect to the base 10 has been found to give satisfactory results.

From an examination of the drawings it will be seen that this structure permits the container to stand solidly on any horizontal flat surface, since the bottom portion 14 is relatively broad and entirely flat and extends the entire distance between the ends 12 and 13, and completely across the bottom of the container from the base 10 to the opposite open side of the container blank.

The open side of the container blank is closed by a relatively flat side plate 17, which includes a marginal flange 18 arranged to fit against the open side of the container blank, and the side plate 17 may also be provided with strengthening ribs 19 similar to the ribs 11 on the base 10. The side plate 17 is separately formed, but is arranged to fit into the open end of the container blank so that these parts may be separately manufactured and shipped, and so that the container structure may be completed by simply inserting the side plate on the open side of the blank and welding around the edge of the plate. This may be done in shops having very little equipment since it does not require the heavy presses used in the formation of the blank or side plate, and it is thus entirely practicable to manufacture the blanks and side plates in localities remote from the area of combat, and to assemble the containers closely behind the lines.

The container is completed by the provision of any conventional type of container closure 21, and by the provision of a suitable handle for the con-

tainer. In the form of the invention illustrated, the handle is of novel and utilitarian formation, comprising a pair of mounting plates 22 and 23 at the opposite ends of the plurality of tubular grip portions 24, 25 and 26. The mounting plate 22 is secured in face to face relationship against the top 15 of the container, and the tubular grip portions are progressively offset above the top of the mounting bracket, the grip 25 being offset with respect to the grip 24, and the grip 26 being offset with respect to the grip 25 so that when the plate is positioned in the angular relationship illustrated in the drawings, the several grip portions of the handle will lie in a common horizontal plane. With this arrangement one of the assembled containers may be stacked on top of another container, since the broad bottom surface 14 may rest firmly on the tops of the grip portions of the container. Thus it is entirely feasible to stand an individual container in vertical position on a flat surface, to stack the containers one on top of another, or to ship the container blanks in disassembled condition with the individual container blanks nested in telescopic relationship with each other. (See Fig. 5.)

From the foregoing it will be apparent that the present invention makes possible more efficient use of available shipping facilities and thus offers an important contribution to the war effort by freeing a large amount of cargo capacity for the transportation of other essential war goods. Further, this is accomplished by a novel and improved structure that is of simple mechanical design and well adapted to mass production methods of manufacture. It is believed, however, that while the present invention has been designed specifically to meet present military requirements and has been adopted by the United States Army as the most satisfactory structure designed for the purpose, yet its utility is not necessarily limited to military uses but may extend to commercial adaptations as well, and it is accordingly requested that the scope of the invention be regarded as limited only by the scope of the language of the appended claim in view of the prior art.

Having thus described my invention, what we claim as new and desire to secure by Letters Patent is:

50 As an article of manufacture, a hollow blank consisting of a single integral substantially rectangular sheet metal stamping having a substantially flat base and an integral wall flange formed on said rectangular base and extending from each edge of said rectangular stamping completely around its marginal edges defining four integral panels arranged at substantially right angles to one another; the blank being characterized by the specific formation of said wall flange wherein one of said panels is arranged at right angles to the base and the other of said panels lie at an angle not less than 95° from said base.

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