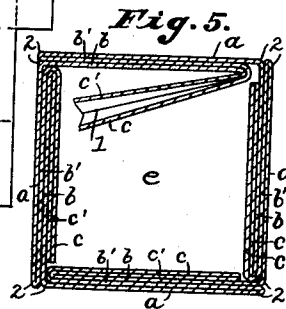
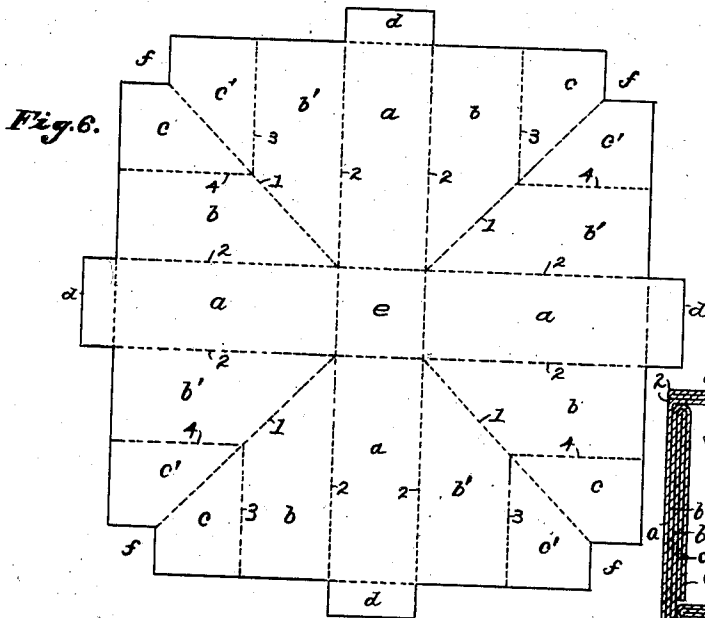
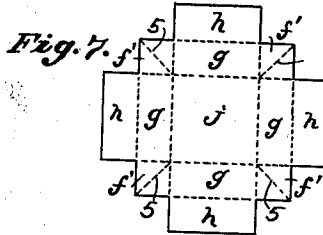
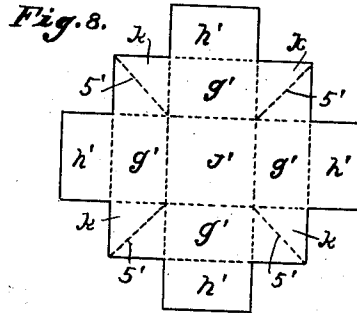
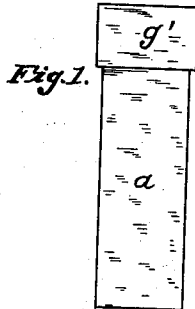
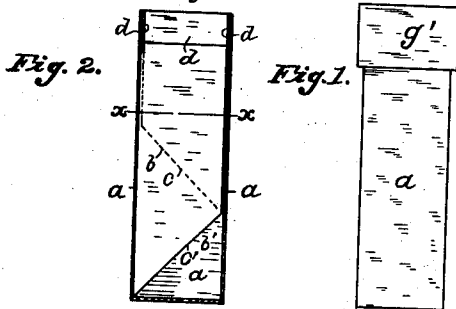
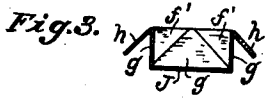
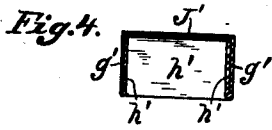


F. W. BAUER & P. KNUPPEN.
 PAPER BOX FOR LIQUIDS.
 APPLICATION FILED DEC. 14, 1911.

1,046,945.

Patented Dec. 10, 1912.



Inventors

Witnesses
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UNITED STATES PATENT OFFICE.

FRED W. BAUER AND PETER KNUPPEN, OF MILWAUKEE, WISCONSIN.

PAPER BOX FOR LIQUIDS.

1,046,945.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed December 14, 1911. Serial No. 665,603.

To all whom it may concern:

Be it known that we, FRED W. BAUER and PETER KNUPPEN, citizens of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Paper Boxes for Liquids, of which the following is a specification.

Our invention relates to improvements in paper boxes for liquids.

The object of our invention is to provide a form of box having a sealed closure and adapted to be used for containing liquids, whereby the same may serve for milk bottles and other liquid containing receptacles which have heretofore been usually composed of glass or metal.

A further object of our invention is to provide means whereby all of the receptacle, except the closure, may consist of a single integral and unslit sheet of paper bent or folded to produce the bottom and side walls of the receptacle.

In the following description, reference is had to the accompanying drawings, in which—

Figure 1 is an elevation of our improved receptacle. Fig. 2 is a vertical sectional view of the same with the closure members removed. Fig. 3 is a vertical sectional view of the inner closure member. Fig. 4 is a similar view of the outer closure member. Fig. 5 is a cross sectional view of the receptacle drawn on line $x-x$ of Fig. 2. Fig. 6 is a plan view of the blank from which the bottom and side walls of the receptacle are formed. Fig. 7 is a plan view of the blank from which the inner closure member is formed. Fig. 8 is a plan view of the blank from which the outer closure member or cover is formed.

Like parts are identified by the same reference characters throughout the several views.

The side and bottom walls of our improved receptacle are formed from a substantially square sheet of paper having projecting tongues d in the middle of each side, and having a square section of its corners cut out as shown at f in Fig. 6. This sheet of paper is subdivided by creases or diagonal folding lines 1, into four equal parts connected with each other by a square central portion e , which central portion e forms the bottom of the receptacle when the latter is completed. Each of these four equal parts

is further subdivided by folding lines 2, 3 and 4 into sections a , b b' and c c' . The folding lines 1 are creased to permit an upward and inward folding movement. The folding lines 2 are creased to permit the sides b b' to fold inwardly at right angles to the section a . The folding lines 3 of each section are creased to permit folding in the reverse direction, while the folding lines 4 are creased to permit folding of the section c' upwardly and inwardly in the same direction that the section b' is folded. The various sections are therefore adapted to be folded upon each other as illustrated in Fig. 5, the crease 3 of each part being brought into registry with the crease 4 of the adjacent part, which crease 4 meets the crease 3 in the folding line or crease 1. When so folded, the sections on opposite sides of the folding line 1, will lap together as follows:—The sections b b' , which meet in one of the lines 1, will lap together and fold upon one of the sections a . The sections c c' , which also meet in said line 1, will lap together and be together folded over and upon the outer of the two sections b b' , thus making, (at the upper portion of the receptacle), a series of overlapping walls a , b b' and c c' , the sections c c' and b b' being held against the wall by folding the projecting member d inwardly and downwardly to engage their upper edges. The sections b b' and c c' between any two sections a , are thus folded upon one of such sections a , and as there are four sections a , each may thus receive one set of the sections b b' and c c' , as shown in Fig. 5.

The inner closure member is composed of a sheet of paper similarly subdivided by creasing lines into sections j , e , f , g and h , the sections f being further subdivided by diagonal creasing lines 5. This blank or sheet may be folded in a simple manner to produce a cup shaped cap, as shown in Fig. 3, the walls of which may be inserted into the open end of the receptacle as formed from the blank shown in Fig. 6. This cap is adapted to be inserted with the members h overlapping the upper margins of the receptacle, and folding over the members j thereof, whereby the members h are permitted to lap or project downwardly along the outer surfaces of the respective members a .

The cover member of the closure is formed from the blank shown in Fig. 8, said blank

being creased along substantially the same lines as the blank illustrated in Fig. 7, and forming a series of sections j' , e' , g' and h' , but said sections h' are folded inwardly instead of outwardly, thus forming the rectangular cover shown in Fig. 4. This closure member is somewhat larger than the closure member shown in Fig. 3, and is adapted to be inverted and applied over the mouth of the receptacle, thus retaining the inner closure member in position, and also reinforcing the walls of the receptacle, preventing them from spreading and holding the sections h of the inner closure member snugly against the outer sides of the sections a of the receptacle.

We claim:—

1. A liquid holding rectangular paper receptacle having side and bottom walls formed integrally from a single blank provided with inwardly folding diagonally

creased corner portions lapped upon each other and reversely folded upon the inner faces of the side walls of the receptacle.

2. A liquid holding rectangular paper receptacle having side and bottom walls formed integrally from a single blank provided with inwardly folding diagonally creased corner portions lapped upon each other and reversely folded upon the inner faces of the side walls of the receptacle, said side walls being provided with flaps folded inwardly and downwardly over the reversely folded portions.

In testimony whereof we affix our signatures in the presence of two witnesses.

FRED W. BAUER.
PETER KNUPPEN.

Witnesses:

LEVERETT C. WHEELER,
I. D. BREMER.