Feb. 26, 1946. B. H. FOSTER 2,395,794

COLLAPSIBLE COOKING RECEPTACLE

Filed Dec. 24, 1943

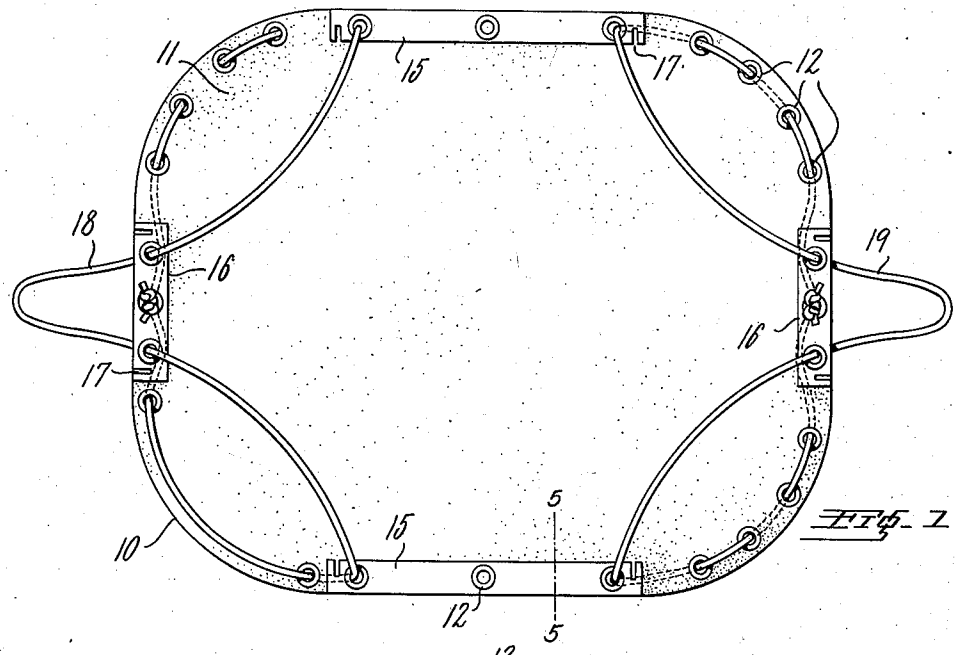
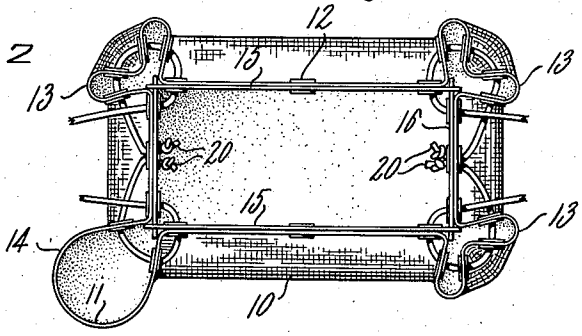


Fig. 1

Fig. 2



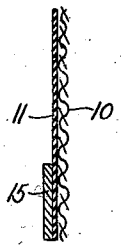


Fig. 5

Fig. 3

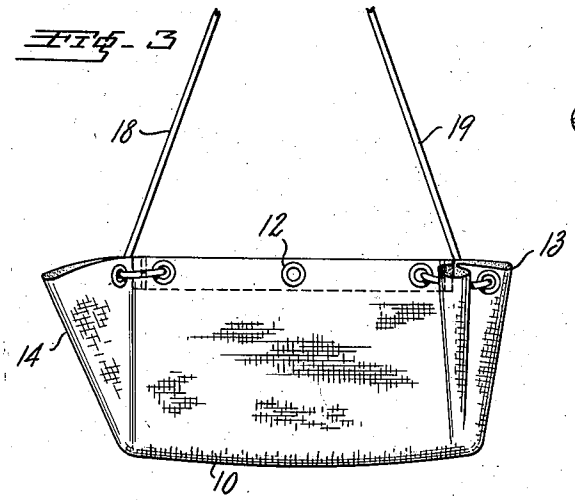
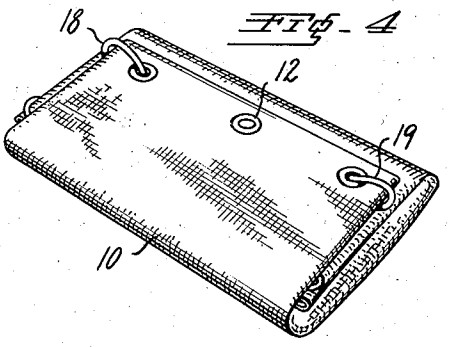


Fig. 4



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COLLAPSIBLE COOKING RECEPTACLE

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1 Claim. (Cl. 126—373)

This invention relates to a collapsible cooking receptacle which is particularly well adapted for use as an article of camping equipment because of the readiness with which it can be folded into a small compact package when not in use.

Cooking receptacles intended for use in camping have been made heretofore of light weight metals such as aluminum and have been provided with folded handles, but such cooking receptacles while light in weight are bulky to carry.

The present invention contemplates a non-metallic receptacle for heating water or other liquids, which is formed of a flat sheet of woven asbestos fabric having the face thereof that is to form the inside of the receptacle coated with a heat-resistant material. The sheet is provided with releasable means for holding the edges of the sheet gathered together to form a receptacle. The construction is such that when this cooking receptacle is to be used to heat a liquid it may be suspended from a tripod or other support in the form of a pouch-like container that is capable of being used over an open fire to boil water or heat other liquids, and when not in use may be folded into a package not much larger than a man's folded pocket handkerchief.

One object of the present invention is to provide a flat sheet of fabric which can be easily and quickly converted into a cooking receptacle that may be used many times to boil liquid therein without being injured by its exposure to a hot fire.

Another object of the invention is to provide a fabric cooking receptacle having draw-strings associated therewith so that when the receptacle is supported by the draw strings in a suspended condition it will form a well-shaped cooking receptacle. Another feature of the invention resides in stiff reinforcing strips secured to the marginal edge portions of the fabric receptacle and which strips can be readily interlocked to form a frame adapted to impart the desired shape to the suspended fabric receptacle.

In carrying out the present invention the collapsible cooking receptacle is preferably formed of a flat seamless sheet of thin woven asbestos fabric that is coated on one face to render it watertight, and has a total thickness of not more than a few hundredths of an inch so that the heat applied to the exterior of the receptacle will be transmitted rapidly through the thin walls of the receptacle to the liquid content therein, to thereby prevent heating the fabric to a temperature high enough to cause dehydration of the asbestos or otherwise to injure the fabric or the water impervious coating material at the inner face thereof.

The various features of the invention and novel arrangement of parts will be more fully understood from the following description when read in connection with the accompanying drawing illustrating one good practical embodiment of the invention.

In the drawing:

Fig. 1 is a plan view of a collapsible cooking receptacle such as contemplated by the present invention shown in its flat or fully extended condition and with its coated face up.

Fig. 2 is a top plan view of the construction of Fig. 1 shown assembled into the form of a pouch-like cooking receptacle.

Fig. 3 is a side elevation of the construction of Fig. 2;

Fig. 4 is a perspective view showing the cooking receptacle of Fig. 1 folded up into a small compact package; and

Fig. 5 is a section taken on line 5—5 of Fig. 1.

A collapsible cooking receptacle such as herein contemplated may be of various sizes and shapes. In its simplest form it might comprise a thin sheet of woven asbestos fabric having a continuous heat-resisting coating upon the face thereof that is to form the inside of the receptacle, and which is adapted to be suspended from its marginal edge portions to form a pouch-like receptacle that is capable of being used many times over an open fire to boil water or heat other liquids.

In the construction illustrated in the drawing a collapsible cooking receptacle is shown comprising a seamless sheet of thin woven asbestos fabric 10 having on the face thereof that is to form the interior of the receptacle a continuous liquid-impervious coating of heat resistant material 11 such as neoprene which will not leak or contaminate the contents of the receptacle, and which will stand repeated scrubbing and cleaning of the receptacle. The construction illustrated is cut from a larger flat coated asbestos sheet 10, 11 to provide an oblong member having rounded corners as shown in Fig. 1.

The rectangular sheet with the rounded corners thus produced may be provided with twenty-six grommets 12 as shown, there being four grommets in three of the rounded corners and two grommets in the fourth rounded corner. The purpose of this is to provide the receptacle with the three gathered up corners 13 and a fourth rounded protruding corner 14 forming a spout from which liquid may be poured. In addition

to the grommets 12 located in each corner as just described, three grommets 12 are provided along each of the four marginal edge portions of the rectangular sheet where they served to secure long stiffening strips 15 to two marginal sides of the sheet 10, 11 and short stiffening strips 16 to the two marginal ends of this sheet.

The strips 15 and 16 may be formed of metal or other suitable material and are constructed to interlock and make a rectangular frame, as shown in Fig. 2, when the receptacle is suspended to form a pouch-like container. To this end the stiffening strips 15 and 16 are provided with the cooperating notches 17 arranged so that the strips may be locked together as in Fig. 2 to form the frame from which the fabric receptacle is suspended. This forms a seamless receptacle open at the top and which has a nearly flat bottom that is exposed to the heating flame. This receptacle is adapted to be supported from a tripod, limb of a tree or other suitable support over a fire by the supporting cord or draw cord 18 provided at one end of the fabric sheet, and the draw cord 19 provided at the other end of the fabric sheet. These cords should be sufficiently fire resistant to withstand the heat to which they are likely to be subjected and may be formed of an asbestos strand having a central reinforcing wire. Each of these draw cords 18 and 19 has its ends threaded through the two end grommets in a short reinforcing strip 16 and then through a grommet at one end of each of the long reinforcing strips 15, and each cord end is finally led through the central grommet of a short strip 16 and the knots 20 are formed to prevent the ends of the draw string from pulling through such grommet. This serves, when the cords are drawn up, to draw the reinforcing strips 15 and 16 together. It also serves to exert an upward pull upon the short strips 16 to keep the notches 17 of these short strips engaged with the notches 17 of the long strips. It will also be noted that three of the end portions of the cords pass back and forth from one face of the fabric to the other as they extend successively through the four corner grommets 12, but that the fourth cord end portion where there are only two corner grommets passes along the inner face of the fabric from one corner grommet to the other. The purpose of this is to cause three of the corners of the fabric to be gathered up as at 13 when the cords are drawn through the grommets, while the fourth corner will be permitted to extend outwardly to form the pouring spout 14 after its cord end has been drawn up.

It is desirable that the asbestos fabric employed to make the present collapsible cooking receptacle weigh not more than about 16 ounces per square yard and that it have a thickness of not more than about .040 inch. The asbestos content should be not less than 80% by weight of the fabric. If the fabric is much thicker or heavier than this, the heat applied to the outer surface of the fabric receptacle may not be transmitted to the liquid in the receptacle quickly enough to prevent injurious over-heating of the asbestos fabric. While a number of heat resistant materials may be employed to waterproof the inner face of the receptacle, good results have been secured by coating the inner face only of the asbestos fabric with neoprene about .010 inch thick, as this has been found sufficient to insure ruggedness and dependable water retention and is thin enough to permit rapid heat transmission therethrough. The neoprene may be applied by calendering a plastic mix directly onto the fabric.

While, as above stated, the collapsible cooking receptacle contemplated by the present invention may be made in various sizes, a receptacle having a liquid capacity of one and one-half pints is considered a desirable size for a cooking receptacle for one person. To provide a cooking receptacle of this size an asbestos sheet was made from asbestos cloth weighing 11 ounces per square yard and having a thickness of .028 inch. After this asbestos sheet was coated with neoprene, it weighed 35 ounces per square yard and had a thickness of .038 inch. The coated fabric thus produced was cut in an oblong oval shape such as shown in Fig. 1 of the drawing so that it was 13½ inches long and 10 inches wide. The short stiffening strips 16 were 2½ inches long and the long strips 15 were 5 inches long. Each strip was made of thin galvanized sheet metal ⅝ of an inch wide. The complete container shown in Fig. 1 of the drawing weighed approximately 4½ ounces and the dimensions when folded up into the flat package shown in Fig. 4 of the drawing were approximately 5¼ inches by 3¼ inches by ¾ inch. The receptacle of Fig. 1 of the drawing is folded up into the compact package of Fig. 4 by proceeding as follows. One end having the strip 16 is folded over towards the center of the flat receptacle as far as the strips 15 will permit and the opposite end 16 is similarly folded over. Then one side provided with a strip 15 is folded over towards the opposite side strip along a line ⅓ of the distance from the side strip 15, and then the opposite side strip is similarly folded over. This produces the flat package shown which is slightly longer than the strips 15 and slightly wider than the strips 16 and which can be conveniently carried in a pocket of the ordinary coat or trousers.

A container weighing approximately 4½ ounces and having the construction just described has been tested over an open fire to boil water, and was found to be still usable after water had been boiled therein 250 times, furthermore the water was not contaminated throughout this test by its contact with the walls of the receptacle.

Having thus described my invention, what I claim and desire to protect by Letters Patent is:

A collapsible cooking receptacle adapted to be spread out in a fully expanded condition when it is to be washed and suspended in the form of a pouch-like receptacle when in use, comprising a sheet of fabric having parallel opposite edges, intermediate outwardly curved corner portions and a heat resistant plastic coating on one face, parallel pairs of stiffening strips secured to intermediate portions of said edges to provide free movement of the corner portions of the sheet for folding, one of said corner portions being shaped to provide a spout, said strips having complementary securing means to form a rectangular frame that defines the opening of the receptacle and from which frame the sheet is suspended to provide a receptacle that bulges outwardly laterally below the frame, and draw cords secured to the oppositely disposed strips and looped through the adjacent corner portions and the interior of the receptacle for supporting the corners and the frame in a suspended condition.

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