# F. L. WEIGAND.

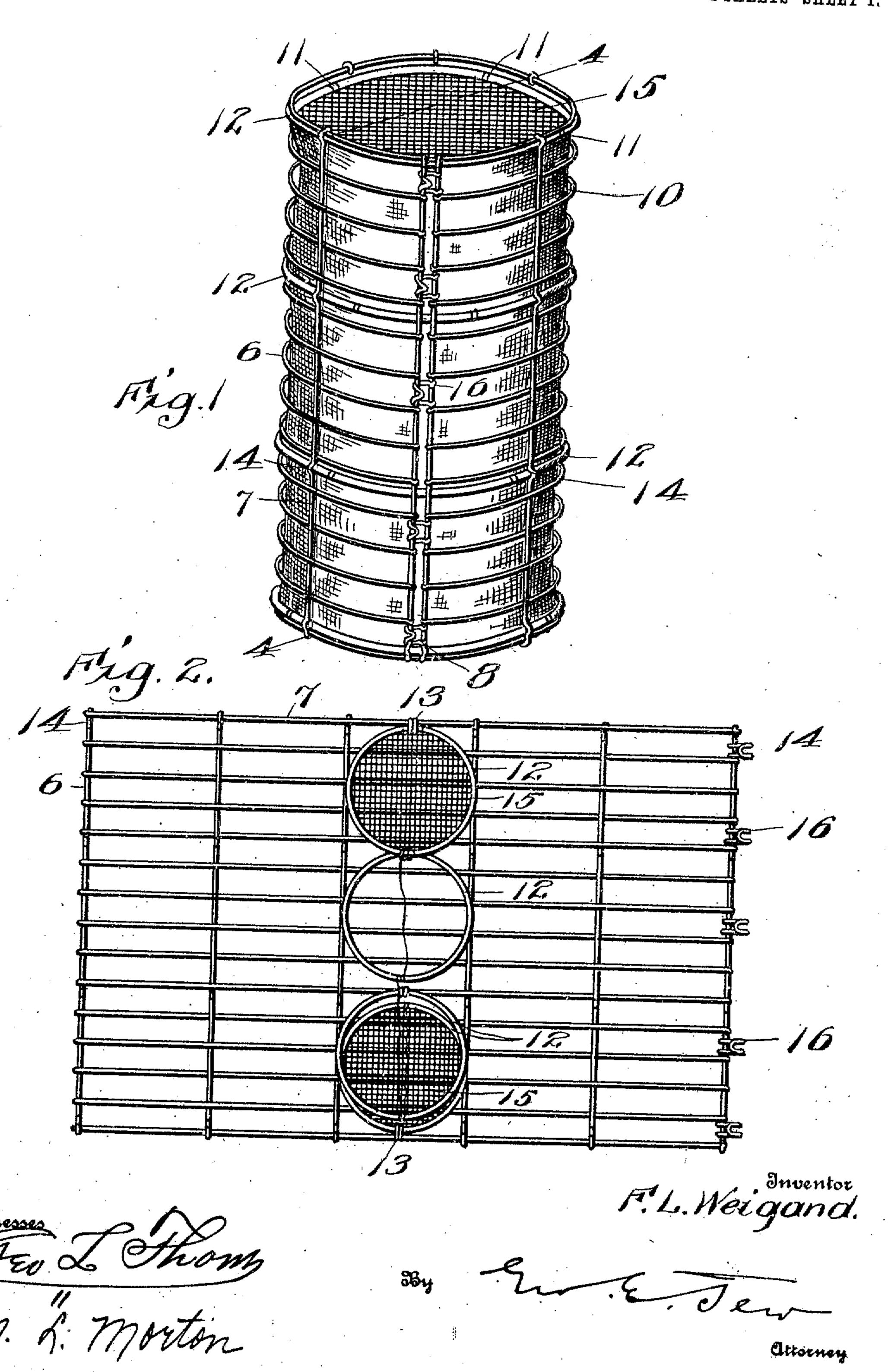
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APPLICATION FILED JUNE 11, 1909.

955,027.

Patented Apr. 12, 1910.

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andrew B. Graham Co., Photo-Lithographers, Washington, D. (

## F. L. WEIGAND.

CRATE.

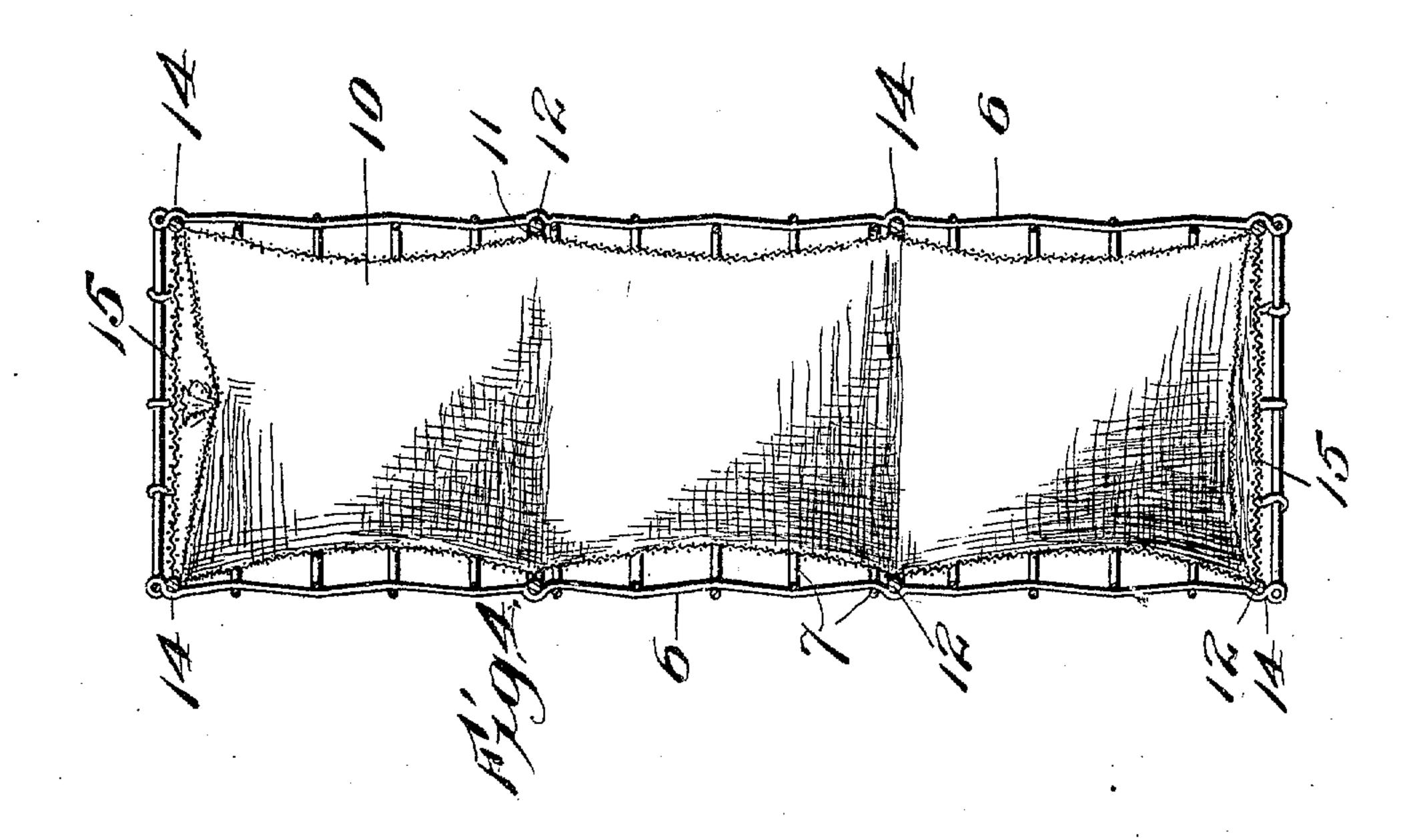
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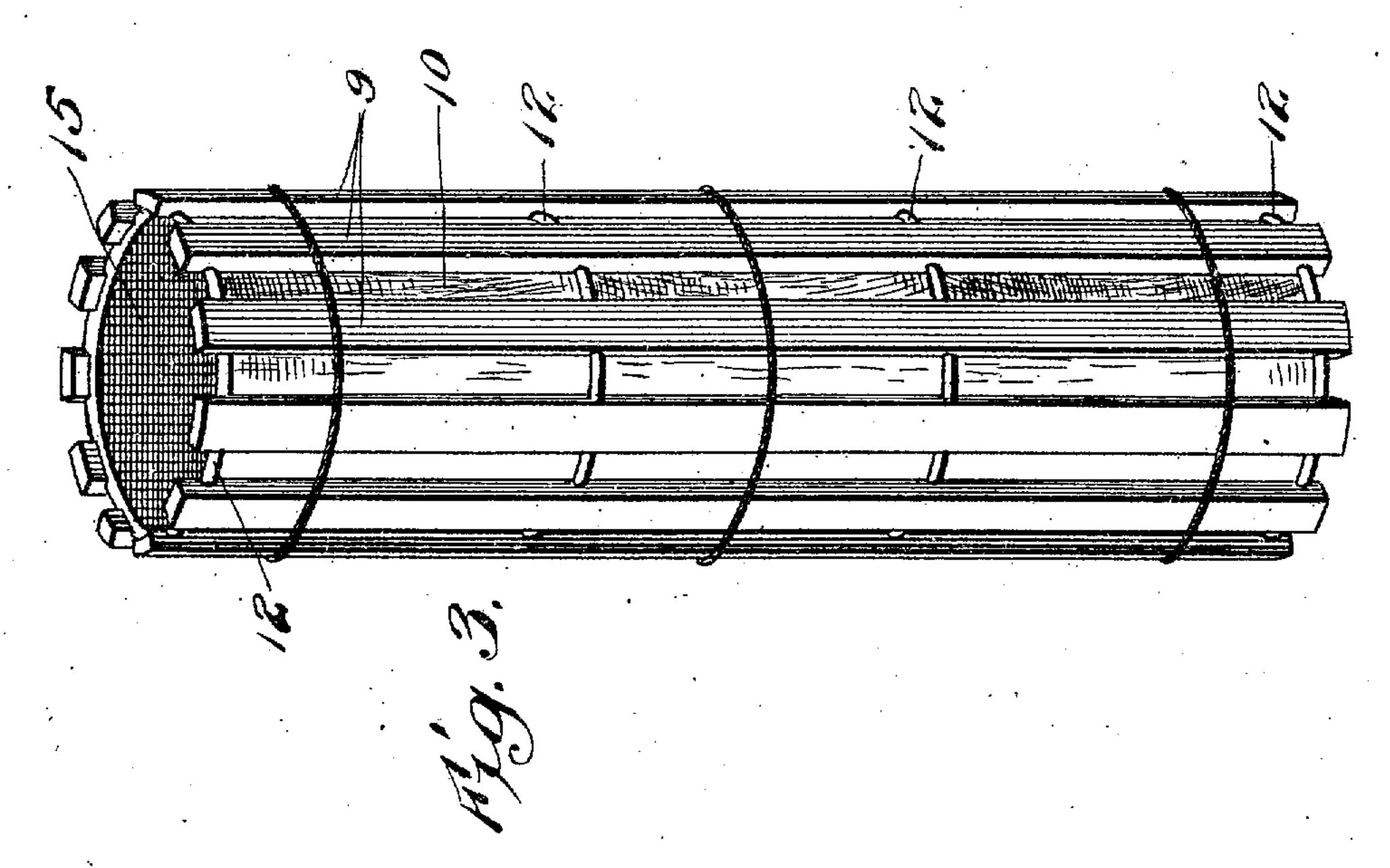
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Witnesses

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# UNITED STATES PATENT OFFICE.

FRANCIS L. WEIGAND, OF BURLINGTON, KANSAS.

#### CRATE.

955,027.

Specification of Letters Patent. Patented Apr. 12, 1910.
Application filed June 11, 1909. Serial No. 501,492.

To all whom it may concern:

Be it known that I, Francis L. Weigand, a citizen of the United States, residing at Burlington, in the county of Coffey and 5 State of Kansas, have invented certain new and useful Improvements in Crates, of which the following is a specification.

This invention relates to collapsible crates, and has for its object to form a new and useful crate which will be useful for shipping fruit, vegetables or merchandise, and which can be set up to hold the articles to be shipped and which can be knocked down to substantially flat position for the purpose of returning said crates for refilling and reshipment.

The invention is illustrated in the accom-

panying drawings in which-

Figure 1 is a perspective view of one form of the crate, set up; Fig. 2 is a plan view of the same collapsed or flattened; Fig. 3 is a perspective view of a modified form; Fig. 4 is a section on the line 4—4 of Fig. 1.

Referring specifically to the drawings, it will be seen that the crate in the embodiment shown consists principally of an outer shell or casing which may be set up to cylindrical or other form, a bag held within said shell, and a set of rings or the like which serve to distend the shell and hold it in shape when set up.

In Figs. 1 and 2 the shell is shown as made of woven wire fabric, having longitudinal rods or wires 6 and cross wires 7 suitably fastened together, the width of the shell when flattened out being equal to the circumference when set up. This shell may be bent to cylindrical or other form when the crate is to be used, the sides being connected by hooks 8 at the margins to hold the same together.

In the form shown in Fig. 3 the longitudinal parts are made of wooden slats or staves 9 connected together by cross wires so that it may be set up into form. Rigid metal rods may be substituted for the longitudinal staves, if desired, or any other construction provided capable of being unfastened at the meeting edges and flattened out into a sheet or flat form.

The inclosed bag is indicated at 10, and the fruit or vegetables to be transported will be placed therein. The bag shown is particularly adapted for carrying bananas. This bag is connected by fastening devices 11 to a series of rings 12 the diameter of

which is substantially equal to the diameter of the shell when set up. At one side these rings are fastened to the shell by links 13 which allow the rings to swing free and to 60 lie flatly upon the shell when the crate is collapsed, as shown in Fig. 2. A vertical series of these rings is used and as many may be used as desirable or necessary to support the crate in distended position.

Each of the longitudinal wires or rods, when a metal fabric is used, is provided with a notch 14 formed by bending the wire outwardly to a slight extent, and when the crate is set up the rings 12 fit in these notches 70 and are thereby held in open position. Instead of metal rings, wooden hoops or the like may be used, and the rings or hoops may be made in square or other form, instead of the circular form shown, in order 75 to give an angular crate. When wooden slats are used they are notched or chamfered on the inside, to receive the distending rings or frames. The top and bottom hoops may be provided with heads 15 of woven wire 80 fabric, or disks of wood, cardboard or the like, properly fitted in and attached to the hoops. A crate thus formed will be very light in proportion to its capacity, especially when made of woven wire fabric, the neces- 85 sary strength being supplied by the rings 12 to prevent collapse of the crate while in shipment. To knock down the crate, it is simply necessary to unfasten the hooks 16 by which the meeting edges of the sheet 90 forming the shell are united. This allows the shell to be flattened out, and also permits the bag to collapse, the rings 13 dropping to flat position upon the shell. A number of the crates can then be piled flatwise 95 one upon the other, and the hooks 16 can then be used to hook the adjacent crates together, forming a package which can be conveniently handled for shipment. Instead of the hooks 16 the shell can be held 100 in set up position by means of a cord wrapped and tied around the same, which will be especially convenient when wooden staves are used.

Various modifications may be made within the scope of the invention, especially with respect to the particular means used to contain or hold the fruit or vegetables to be shipped. A compartment crate can be made by stretching fabric of some kind across 110 each hoop, thereby separating the crate into upper and lower cells or compartments.

I claim:

1. A collapsible crate comprising a flexible wall separable at one side and openable to flat position, a series of open frames each 5 of which is flexibly attached at a single point to the inner side of the wall, and of proper size to fit across within said wall and distend the same when set up, and adapted to fold down flatly upon said wall 10 when it is collapsed, some of said frames being located at the ends of said wall and others intermediate said ends, and a collapsible container attached to and supported by said frames and located within the wall 15 when set up and foldable with said frames and upon said wall when collapsed.

2. A collapsible crate comprising a flexible outer wall made of longitudinal and flexible cross members, and separable at 20 one side and openable to flat position in a

single plane, a series of rings each of which is flexibly attached at a single point to the wall, so that they will fold flatly upon the same, said rings being located respectively at and intermediate the ends of said wall 25 and arranged to fit across within and to distend the same when set up, and a bag attached to said rings and extending through the intermediate rings and distended thereby when the crate is set up, said longitudinal 30 members being notched to receive said end and intermediate rings and hold the same in position, when set up.

In testimony whereof, I affix my signature in presence of two witnesses.

### FRANCIS L. WEIGAND.

Witnesses:

BERTHA BORDENKIRCHER, L. H. HANNEN.