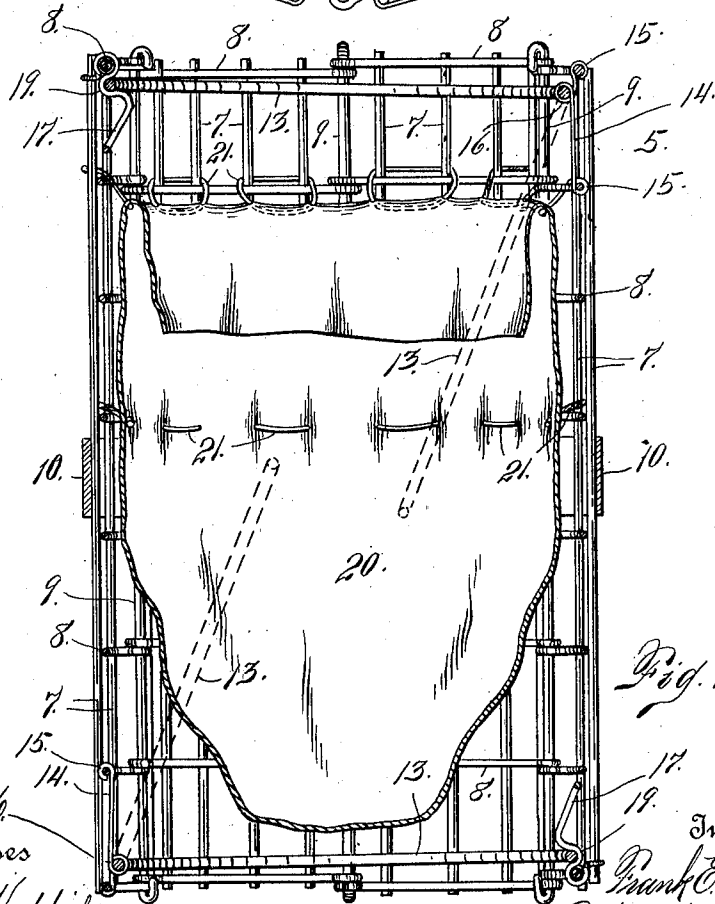
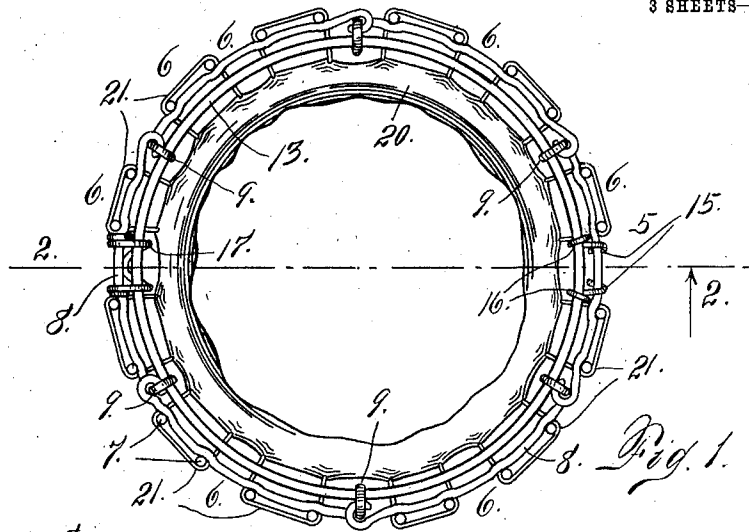


F. E. STERRETT.
BANANA CRATE.
APPLICATION FILED APR. 2, 1910.

1,003,540.

Patented Sept. 19, 1911.

3 SHEETS—SHEET 1.



Witnesses
Otto E. Haddick.
C. H. Rosner.

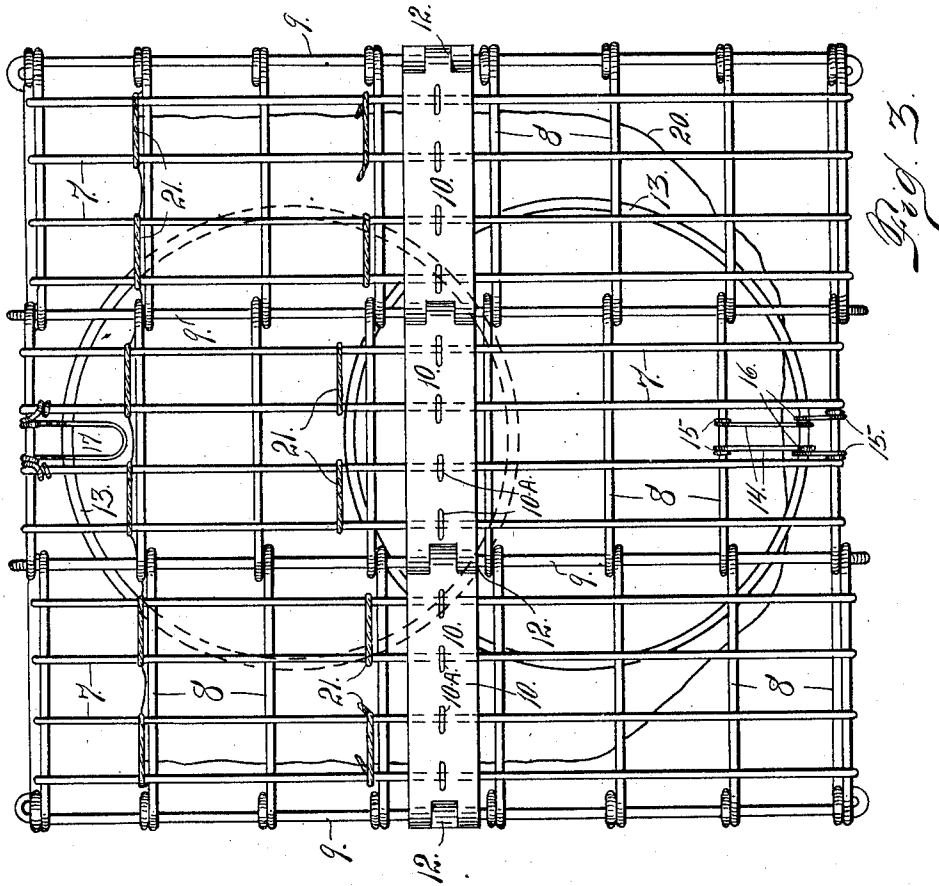
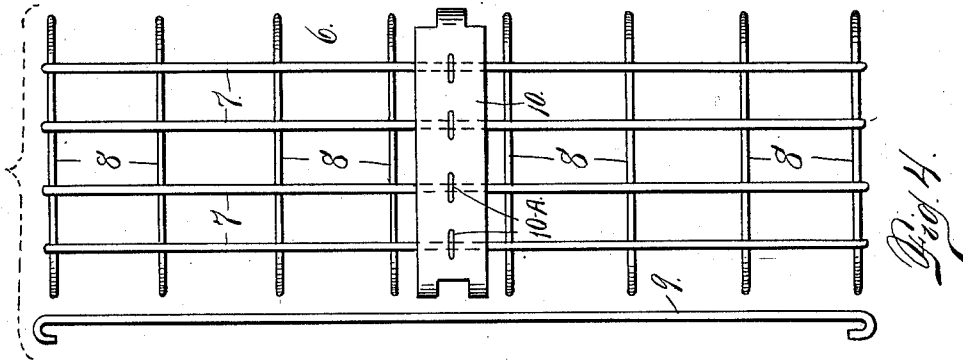
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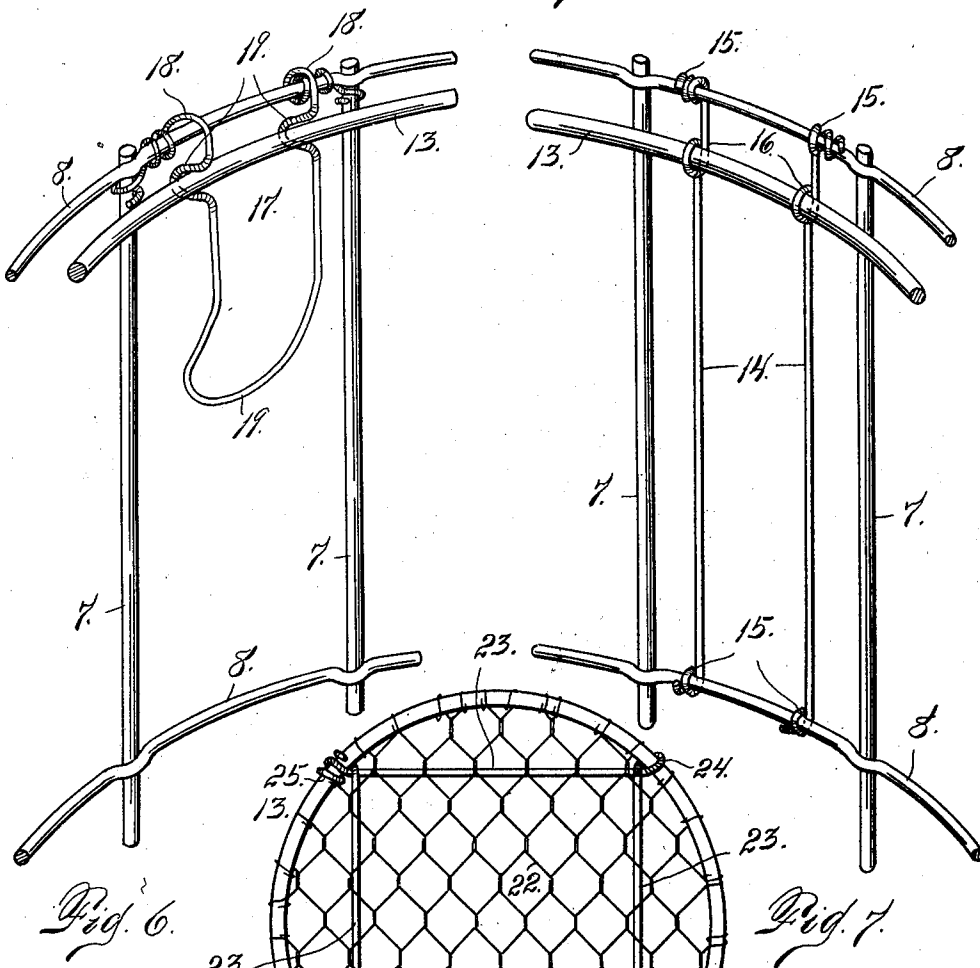
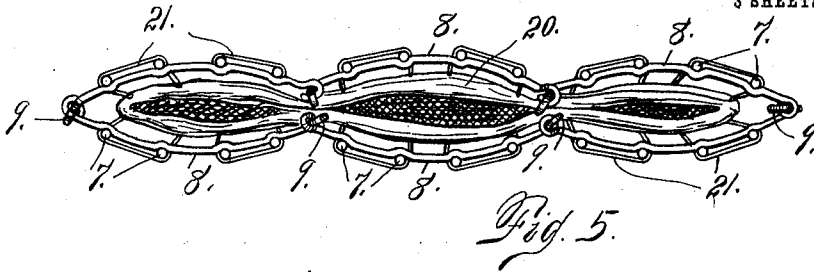
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3 SHEETS—SHEET 3.



Witnesses

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Fig. 8.

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UNITED STATES PATENT OFFICE.

FRANK E. STERRETT, OF DENVER, COLORADO.

BANANA-CRATE.

1,003,540.

Specification of Letters Patent. Patented Sept. 19, 1911.

Application filed April 2, 1910. Serial No. 553,076.

To all whom it may concern:

Be it known that I, FRANK E. STERRETT, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Banana-Crates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in folding banana crates, my object being to provide a construction of this class in which bananas may be safely shipped, the crates being so constructed that after removing their contents, they may be folded into small compass and returned to the shipper for re-use.

My improved construction is formed of wire and is composed of collapsible hinged sections. Provision is made for supporting a bag within the crate, into which bag the bunch of bananas may be inserted, after which the bag may be tied at the top, thus completely concealing and protecting the fruit. Each extremity of the crate is provided with a hinged spacing ring, which, when properly adjusted, maintains the crate in its expanded or open position. When, however, it is desired to fold or collapse the crate, these head rings are moved inwardly whereby they are caused to occupy such positions that their planes shall be approximately parallel with the sections of the crate when folded. By virtue of the circular form of the crate, the sections are slightly curved. When, however, the crate is in the collapsed condition, these sections lie approximately flat, since the number of sections may be such that the arc of the curve of each section is comparatively slight.

Having briefly outlined my improved construction, I will proceed to describe the same in detail, reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing: Figure 1 is a top plan view of my improved banana crate. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a plan view of the crate in its collapsed condition. Fig. 4 is a detail view showing one section of the crate, to-

gether with one of the rods which form the hinge-pins of the crate sections. Fig. 5 is an end view of the collapsed crate. Figs. 6 and 7 are detail views showing parts of the crate on a larger scale. Fig. 8 is a detail view of one of the end rings of the crate, showing the same closed with wire mesh material and strengthened by a relatively coarse wire arranged in rectangular form.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the banana crate considered in its entirety and consisting of a number of sections 6. Each section is composed of a number of parallel longitudinally disposed wires 7 which are connected by transverse parallel wires 8. The extremities of the cross wires 8 are formed into eyes which engage rods 9 which form the hinge-pins of the sections, as heretofore stated. In actual practice the cross wires 8 are brazed to the longitudinal wires 7 of the various sections of the crate. As shown in the drawing the crate is composed of six sections, though any other desired number of sections may of course be employed. While it is preferred to form the crate of an even number of sections, it would not be impracticable to form it of an odd number, as for instance seven instead of six, but it would of course be necessary that the four sections which would form one side of the structure, when collapsed, should be of such width that in the aggregate they would just equal the width of the three sections on the opposite side. Each section is centrally provided with a relatively wide band member 10 whose extremities are hinged to the rods 9 as shown at 12. These bands, by reason of their width, give the crate great additional strength and security, thus making it sufficiently rigid, to resist any reasonable force to which it is liable to be subjected during shipment. These band members may be connected with the wires 7 of the crate by brazing or in any other suitable manner. As shown in the drawing, the metal of the bands is punched out to form eyes 10^a through which the wires 7 are passed, though as above stated, I do not limit the invention to any special method or manner of securing the band sections 10 to the crate sections 6.

At each end of the crate is hinged a ring 13. As shown in the drawing, the uppermost two cross wires 8 of one of the

sections is equipped with two parallel wires 14, their extremities being twisted about the transverse wires 8 as shown at 15. Near the uppermost wire 8, eyes 16 are formed in the wires 14, which are adapted to receive the ring 13, whereby the latter is hinged to swing inwardly as when it is desired to fold the crate, or outwardly to a horizontal position when the crate is in use. In order to support the ring 13 in its position to expand the crate or maintain it circular in cross section, a wire locking device 17 is employed. This device consists of a loop projecting into the crate and having its extremities coiled around one of the uppermost cross wires 8 of the crate, as shown at 18. These wire coils give the loop sufficient tension to cause its bends 19 to engage and securely hold the ring 13 in the horizontal or crate expanding position. The loop 17 has a curved lower portion 19 which is engaged by the ring when the latter is swung outwardly to the expanding position. As the ring engages the curved extremity of the loop, the latter will be forced outwardly by virtue of the pressure of the ring, until the latter reaches the interlocking bends 19, when the latter will instantly interlock with the ring, under the influence of the tension of the spring coils 18, whereby the ring will be securely locked in its expanding relation. As heretofore explained there is one of these expanding rings connected with both the bottom and top of the crate, but as they are both hinged and interlocked in substantially the same manner, the description of the hinged and interlocking connections of one will be sufficient for both.

In order to properly incase the bunch of bananas and prevent it from possible injury during shipment, a sack or bag 20 is inserted in the crate and connected with the various sections thereof, by means of cords 21, which are sewed through the fabric of the bag and passed around the vertical or longitudinal wires 7 of the crate. These bag-securing devices may be located at any desired intervals both around the crate and between the top and bottom thereof.

In actual practice, the expanding rings 13 may, if desired, be provided with wire mesh material 22, whereby both heads of the crate will be closed when the crate is in

use or during a shipment. This wire mesh material may be strengthened and reinforced by the use of relatively heavy wire members 23 applied thereto and arranged in rectangular or other form (see Fig. 8). As shown in the drawing, the members 23 are composed of an integral piece of wire which is connected with the ring at points 24 intermediate the extremities of the wire, the ends of the latter being finally brought together and secured to the ring as shown at 25. It is evident, however, that any other suitable manner of applying the strengthening or reinforcing means to the mesh material of the crate-expanding rings, may be employed.

Attention is called to the fact that my improved shipping crate, while more especially intended for use in shipping bananas, may be employed in shipping other products as well. It is evident that it may be made in various sizes to suit the requirements of the article to be placed therein, or the convenience of the shipper.

Having thus described my invention, what I claim is:

A shipping crate, circular in cross-section and composed of sections hinged together to fold or collapse, each section consisting of longitudinally disposed parallel wires connected by transverse wires, any two opposite sections having parallel wires secured at their extremities to the transverse wires of the section and coiled into eyes near the end of the section, crate expanding rings passed through the said eyes and loosely mounted therein to permit of a sliding movement of the rings, the said rings being adapted to fold inwardly to opposite sides of the crate, any two sections of the crate being equipped with resilient locking devices opposite the eyes of the respective parallel wires, the said locking devices being fixedly secured to a transverse wire of the crate and having a loop adapted to receive the rings for holding the same in their operative position for supporting the crate in the expanded position.

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

FRANK E. STERRETT.

Witnesses:

VIRGINIA I. DAVIS,
A. EBERT O'BRIEN.