

No. 814,534.

PATENTED MAR. 6, 1906.

O. GRANKE.
BANANA SHIPPING CRATE.
APPLICATION FILED MAY 29, 1905.

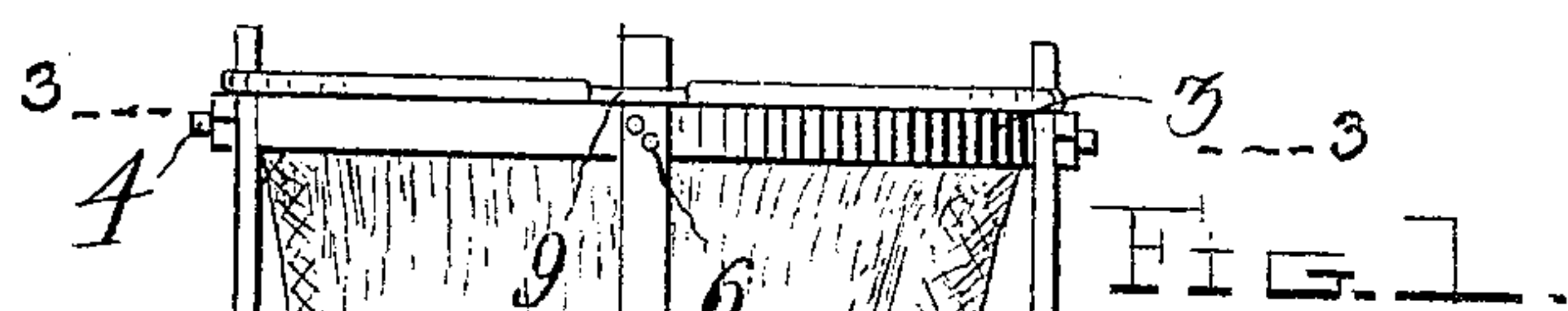


Fig. 1.

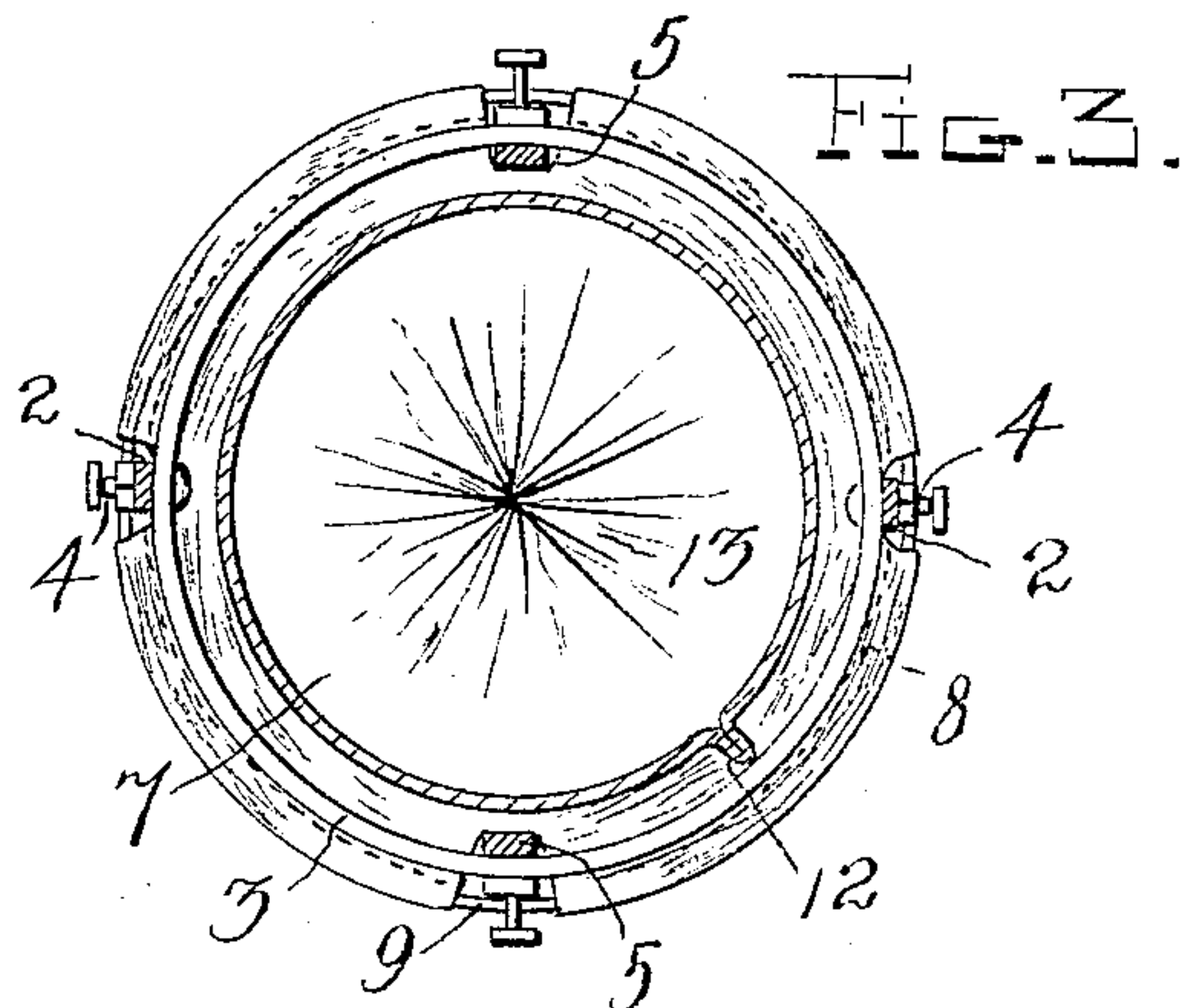


Fig. 3.

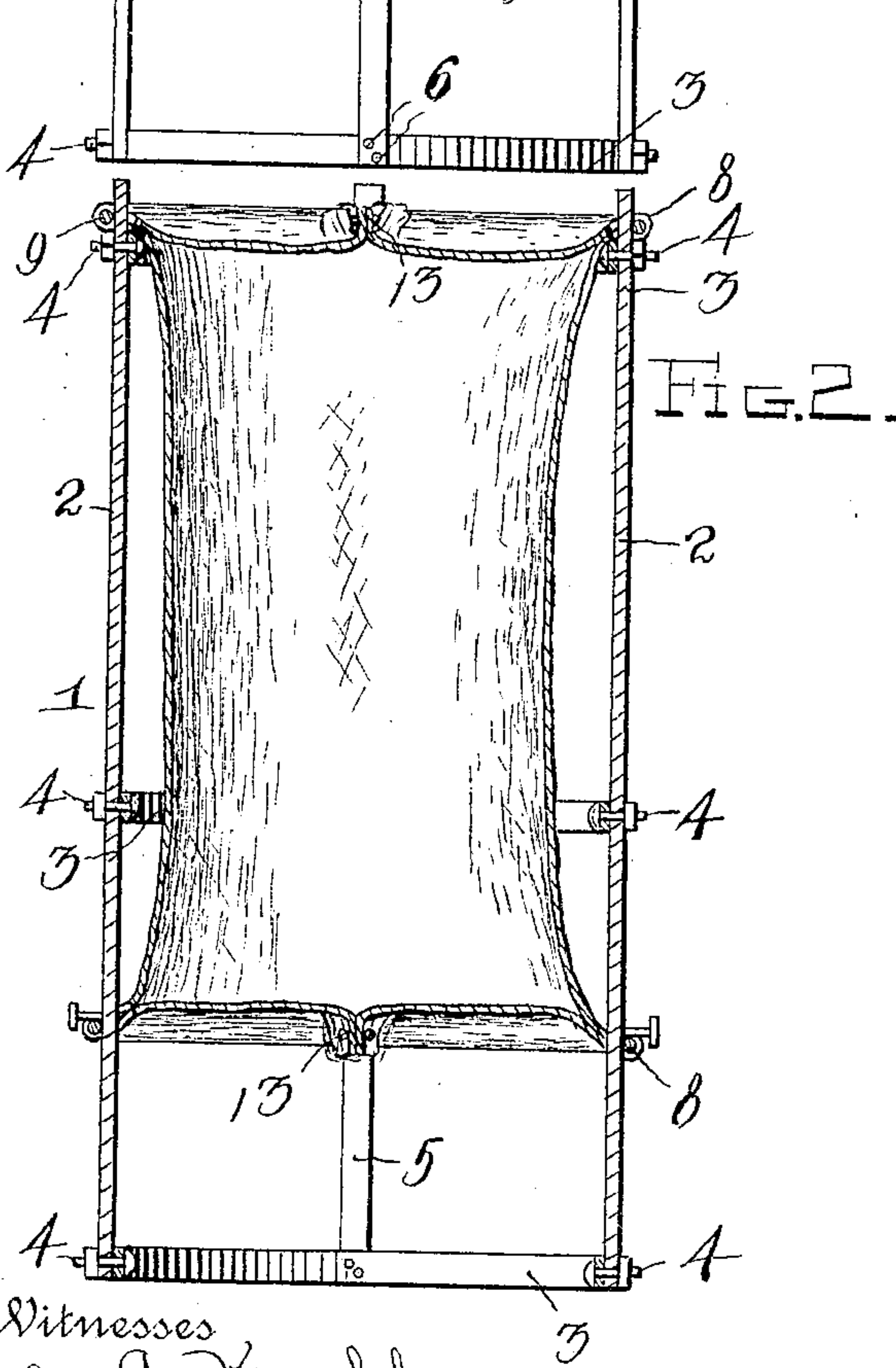


Fig. 2.

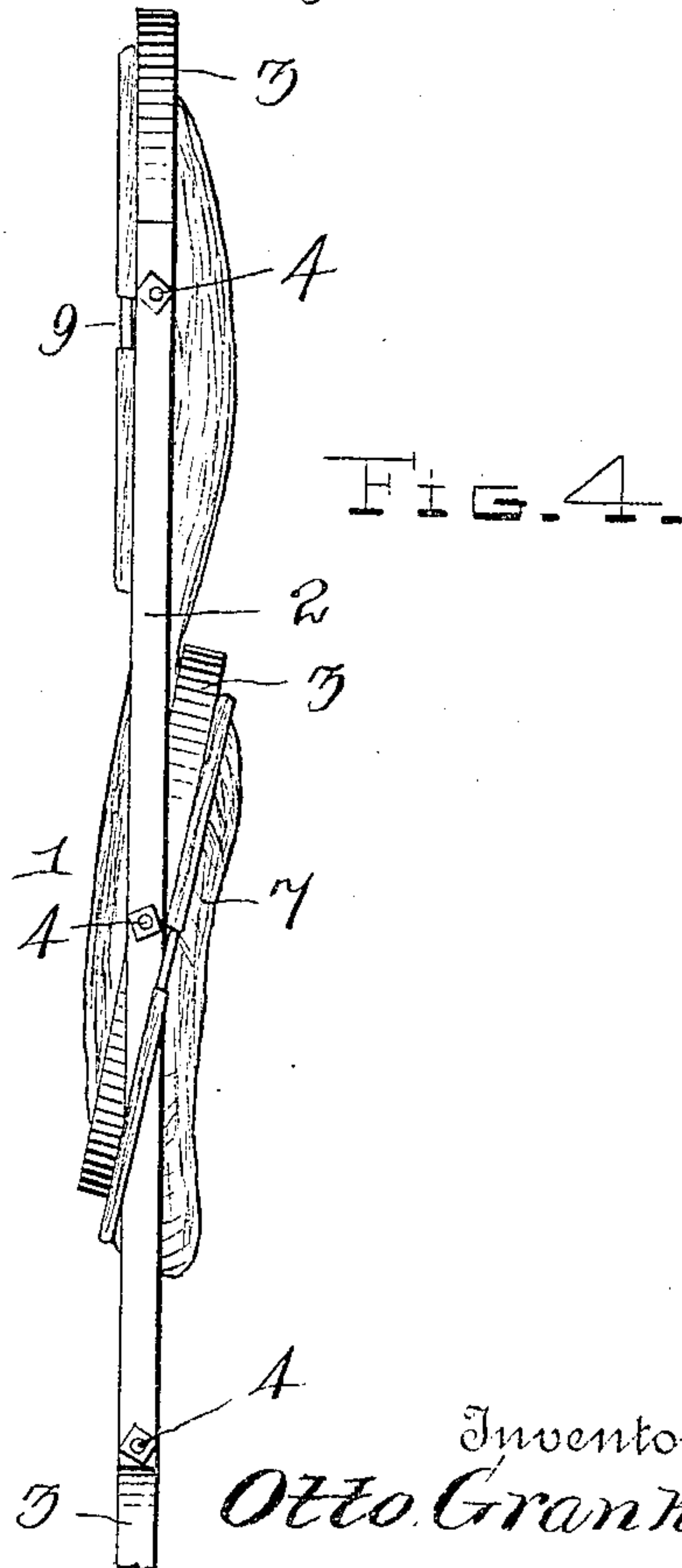


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

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BANANA-SHIPPING CRATE.

No. 814,534.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed May 29, 1905. Serial No. 262,844.

To all whom it may concern:

Be it known that I, OTTO GRANKE, a citizen of the United States, residing at La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Banana-Shipping 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.

My invention relates to improvements in collapsible or knockdown crates for use in shipping bananas in bunches.

The object of the invention is to provide a simple, strong, and inexpensive device of this character which may be readily folded or collapsed when not in use to facilitate the shipment and storage of the same.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side elevation of my improved knockdown banana-crate, showing the same in its open position. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 1, and Fig. 4 is a side elevation of the crate in its folded position.

Referring to the drawings by numeral, 1 denotes my improved knockdown or collapsible shipping-crate, which comprises a pair of parallel supporting strips or bars 2, connected together at suitable intervals by a series of annular hoops 3. The latter are pivoted at diametrically opposite points between said strips or bars 2 by means of bolts 4 or any other suitable pivotal connections, so that said hoops may be swung angularly into the longitudinal plane of the strips or bars 2 when it is desired to collapse or fold the crate, as shown in Fig. 4. Any desired number of these hoops 3 may be employed, and the same are adapted to be secured in their open position—that is, at right angles to the strips or bars 2—by one or more longitudinally-disposed bracing-strips 5. The latter are alternately engaged with the outer and inner faces of the adjacent hoops 3 and may be permanently or detachably secured thereto in any desired manner. As indicated in the drawings, they are secured by one or more small

nails or brads 6; but it will be understood that any other suitable fastening means may be employed. In the drawings I have shown but three of the hoops 3 and but two of the bracing-strips 5, the latter having their ends secured upon the outer sides or faces of the end hoops and their intermediate portions secured upon the inner sides of the intermediate hoops; but it will be understood that any desired number of the hoops 3 and the bracing-strips 5 may be employed. By engaging the bracing-strips 5 with the outer face of one hoop then with the inner face of the next hoop and then with the outer face of the next adjacent hoop it will be seen that the frame will be rigidly braced and materially strengthened.

In order to support a bunch of bananas within the frame or crate, I provide a tubular sack 7, formed of burlap or other suitable material and having adjacent to its ends loops or tucks 8, through which are passed hoops or rings 9. The ring or hoop 9 at the top of the crate is engaged with the outer faces of the strips or bars 2 and 5, and the said ring or hoop at the lower end of the crate is slidably mounted and adapted to be secured after the sack has been stretched to the desired extent by nails 11 or any other suitable fastening means. By adjustably mounting the lower ring or hoop 9 in this manner the sack may be stretched longitudinally, so that its sides will be taut and held away from the longitudinal strips 2 and 5, the central portion of the sack being formed, preferably, of less diameter than its end portions by forming one or more longitudinal tucks 12. The open ends of the sack 7 are gathered together and tied, as shown at 13, so as to support a bunch of bananas within the crate.

It will be seen that the crate is shipped from the manufacturer in its folded or collapsed position (shown in Fig. 4) and that the shipper sets the same up by swinging the hoop 3 at right angles to the strips 2 and securing the bracing-strips 5, as shown. By making a crate collapsible in this manner it will occupy but little space when folded, so that it may be conveniently shipped at comparatively little expense, and a great number of them may be stored in a very small space. Owing to the simple and inexpensive construction they may be manufactured at a very small cost.

From the foregoing description, taken in connection with the accompanying drawings,

the construction and operation of the invention will be readily understood without requiring a more extended explanation.

5 Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

15 The herein-described banana-crate comprising the pair of strips or bars, the series of hoops on the inner sides of said bars and at opposite points pivoted thereto to enable said hoops to be turned angularly with re-

spect to the bars, the sack having stiffening-hoops near its ends and provided with openings through which the bars extend, said stiffening-hoops being on the outer sides of 20 said bars, one of said stiffening-hoops bearing on one of the pivoted hoops and the other stiffening-hoop being slidable on said bars, and a brace-strip connecting the pivoted hoops. 25

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

OTTO GRANKE.

Witnesses:

MATILDA M. MAJOR,
S. S. TANNER.