

(No Model.)

C. B. DARE & J. D. HALL.
BARREL OR CRATE.

No. 504,445.

Patented Sept. 5, 1893.

Fig. 1

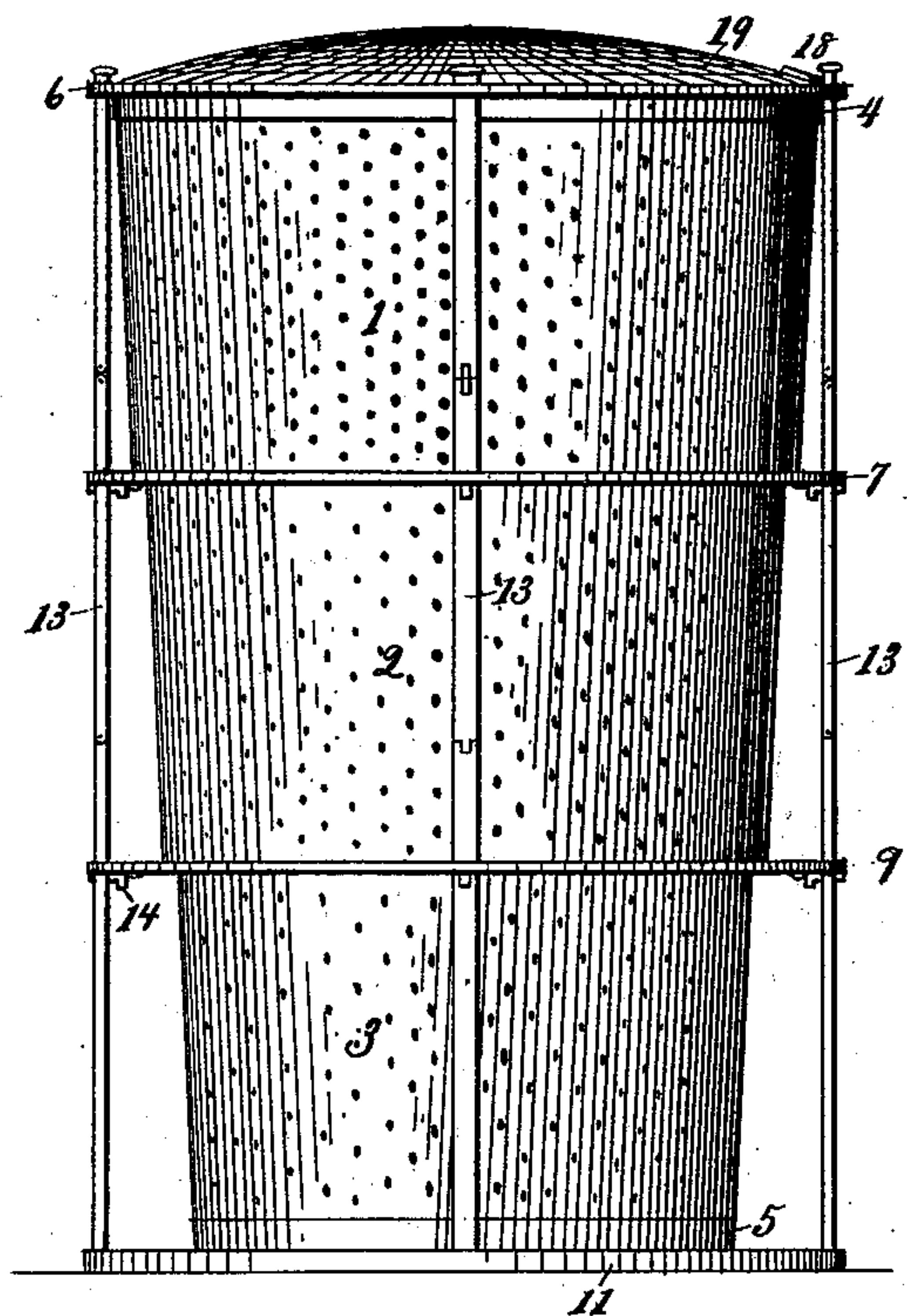


Fig. 2

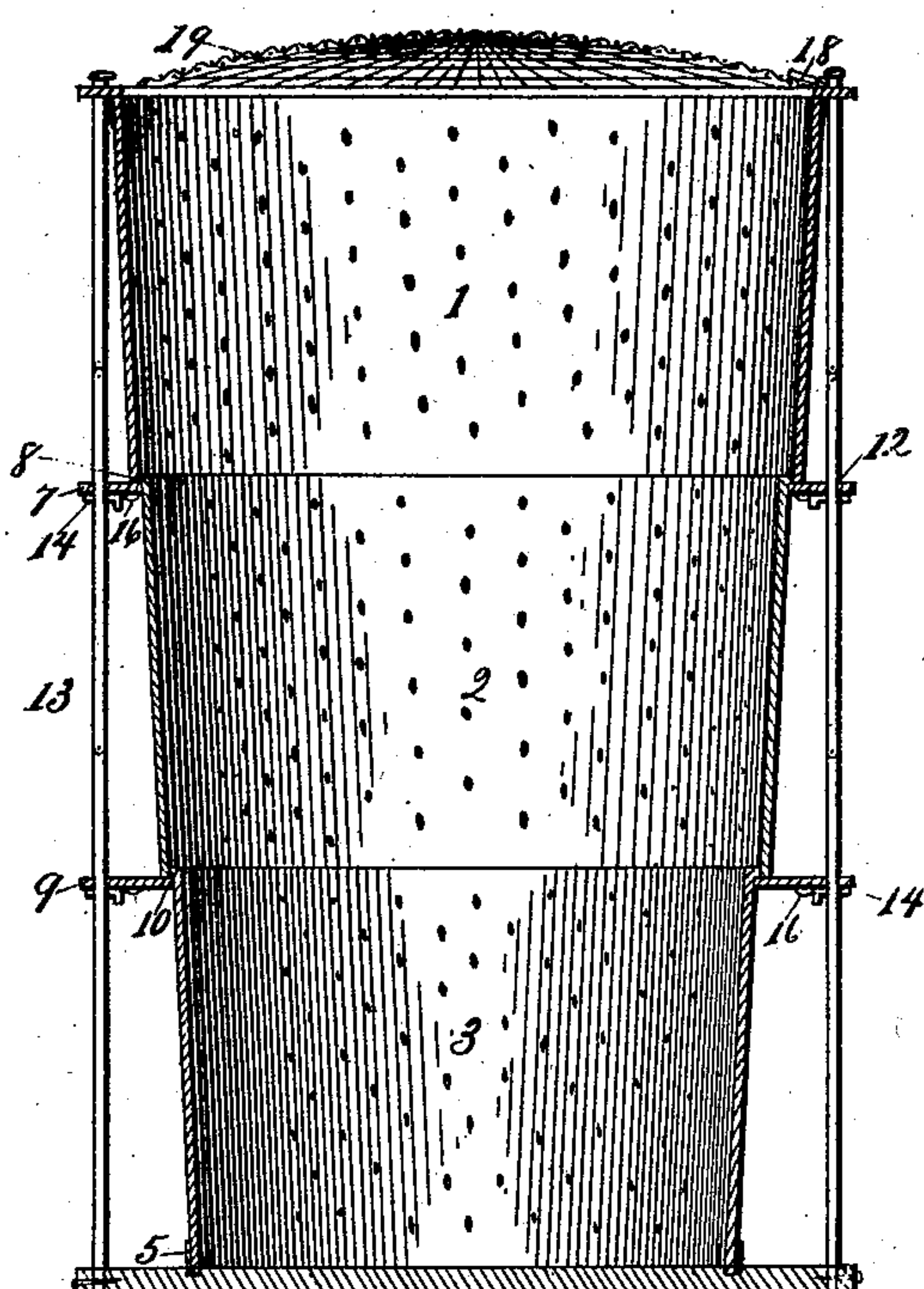


Fig. 3

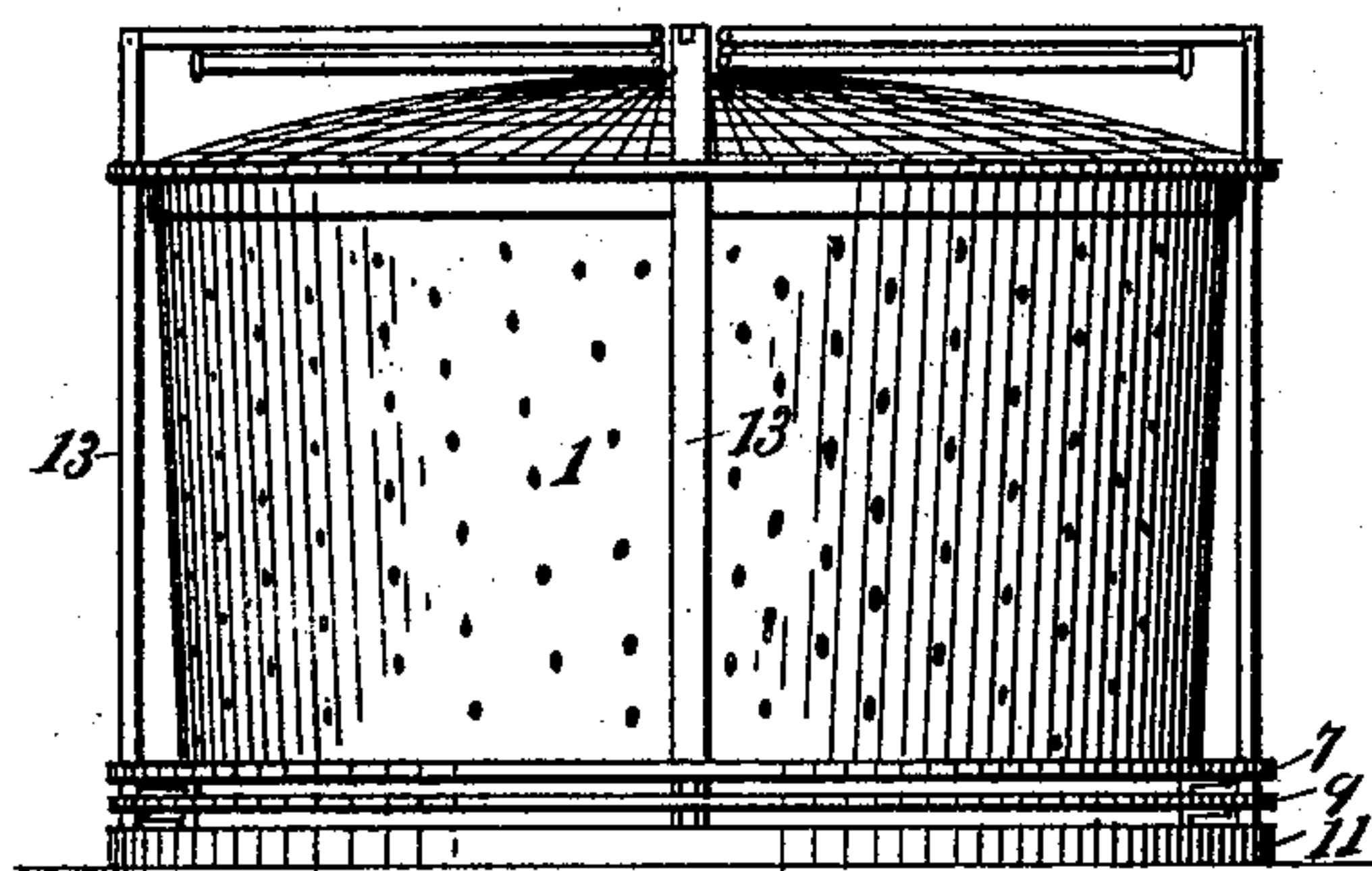
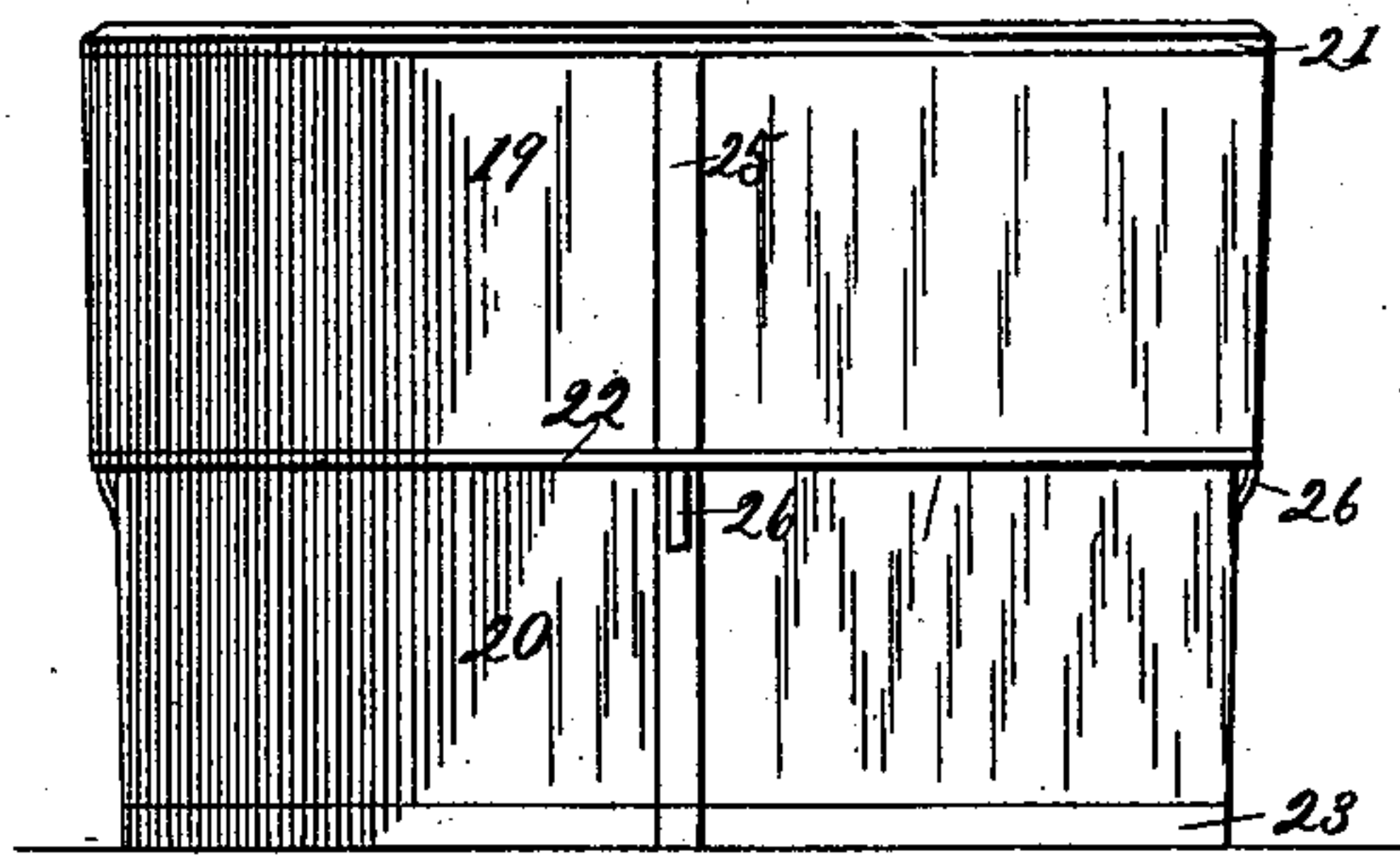


Fig. 4



Witnesses

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UNITED STATES PATENT OFFICE.

CLIFTON BENNETT DARE AND JULIAN DUANE HALL, OF EL CAJON,
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BARREL OR CRATE.

SPECIFICATION forming part of Letters Patent No. 504,445, dated September 5, 1893.

Application filed November 3, 1892. Serial No. 450,845. (No model.)

To all whom it may concern:

Be it known that we, CLIFTON BENNETT DARE and JULIAN DUANE HALL, citizens of the United States, residing at El Cajon, in the county of San Diego and State of California, have invented a new and useful Barrel or Crate, of which the following is a specification.

Our invention relates to improvements in the construction of barrels, crates and boxes; the objects in view being to produce a device of this character that may be constructed so as to provide for a thorough ventilation of the contents during shipment, and hence their preservation; that is capable of being readily handled in the same manner as an ordinary barrel, if the invention be applied to such article; and which may be reduced in size as the contents thereof are dispensed or removed, and materially reduced and telescoped when emptied for the purpose of shipment back to the sender or shipper.

With these and various other objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings—Figure 1 is a side elevation of a barrel constructed in accordance with our invention, the same being extended its full length as in the act of shipping fruit or other articles. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a side elevation, the barrel collapsed or telescoped for reshipment to the original shipper. Fig. 4 is an elevation of a box or crate constructed in accordance with our invention. Fig. 5 is a detail in side elevation of one of the vertical stay-rods and ring.

Like numerals indicate like parts in all the figures of the drawings.

In practicing our invention, as when constructing a barrel, we prefer to employ three sections which we have indicated as 1, 2 and 3, the latter being the bottom section. These sections may be constructed of any suitable material, such as reticulated-wire, papier-maché, or any other material that is light and tough, and when constructed of other than reticulated-wire, the said material is preferably provided with slits or perforations sufficiently minute to prevent the entrance of in-

sects and yet permit of a thorough circulation of air throughout the contents. The sections 1 and 2 are bottomless, and the three sections decrease in size from top to bottom, the upper section at its bottom being slightly larger than the second section at its upper end; and the second section at its bottom being slightly larger than the third section at its upper end, so that as will be obvious, the three sections may be telescoped, the upper section receiving the lower ones. The upper section near its upper edge is encircled by a metal strap or hoop 4, and the lower section at its lower edge is encircled by a similar strap or hoop 5. A ring 6, also encircles the upper edge of the section 1 immediately above the hoop 4, and to this ring is secured the upper edge of the section 1. A second ring 7 encircles the lower edge of the section 1, the outer edge of said ring projecting beyond the exterior of the section 1 while the inner edge projects beyond the interior thereof. The section 2 is received by the ring 7, and has its exterior at its upper edge provided with a narrow ring 8 corresponding to the ring 6 of the upper section and being arranged above the ring 7 of said upper section is designed to abut thereagainst when the sections are drawn out from each other. The bottom of the section 2 is encircled by a metal ring 9, whose external diameter is the same as the ring 7 and the ring 6, but whose internal diameter is somewhat less than that of the ring 7 and of the bottom of the section 2, so that while the outer periphery of the ring 9 projects beyond the exterior of the section 2, the inner periphery projects beyond the interior of the section 2. The section 3, like the section 2, has its outer edge encircled by the inner periphery of the ring 9, and above the same is provided with a ring 10, which rests upon the ring 9 when the sections are distended. 11 designates the bottom ring, whose external diameter is the same as the rings 6, 7 and 9, and upon this rests the bottom section 3.

Each of the rings 9, 7 and 6 is provided at corresponding points with narrow slots 12, and through these slots pass connecting strips or standards 13, there being a series of them employed, in this instance four in number. The lower ends of the standards or strips are

secured permanently to the lower ring 11. The strips or standards pass loosely through the slots 12 so that as will be obvious the rings 9, 7 and 6 are capable of sliding thereon.

5 They are prevented from such sliding normally by sliding-keys 14, with which all of the rings 9, 7 and 6 are provided, and which are designed to be passed through corresponding perforations or openings 15 formed in the

10 standards or strips, whereby the rings become locked with the standards or strips. Spring detents 16 may be located in rear of the pins, whereby they are prevented from accidental disengagement with the standards or strips.

15 Each of the standards or strips at points immediately above the rings when the sections are distended, is jointed as indicated at 17, any suitable form of pivotal joint being employed; in this instance the adjacent ends

20 of the sections of the standards are mortised and tenoned and pivoted as shown.

Any suitable cover may be employed for the barrel and in this instance we have hinged at 18 to the upper ring 6 a reticulated cover 19.

25 As shown in Fig. 4, the construction indicated in the first three figures of the drawings may be carried out in boxes and crates. In this figure, 19 and 20 designate two telescoping sections, which are rectangular in

30 plan; the upper section is provided with a frame 21 at its upper edge, and at its lower edge with a frame 22 that projects therefrom. The lower section is provided with a bottom frame 23 and at its upper edge with a frame

35 24 which abuts against the frame 22 of the section 19. Straps or standards 25 extend from the frame 23 loosely through the frames 22 and 21 and are jointed immediately above the lower section 20. Spring detents 26 may

40 be located upon the lower section 20, and serve ordinarily to prevent the collapse of the sections 19 and 20. The straps or standards employed in either of these constructions may be of any suitable material, metal, papier-

45 maché, wood, &c. It will be seen that the barrel or box is capable of being collapsed as its contents are decreased, and when finally it is empty and it is shipped back to the original shipper it may be totally collapsed

50 or telescoped, all within the height of one section. In such telescoping the ring 7 rests upon the ring 9 and the two upon the ring 11. The slides are disconnected of course to permit of this telescoping and the straps or stand-

55 ards 13 being liberated may be readily folded inward by reason of their joints 17. In this manner the barrels or crates may be shipped back to the original shipper at exceedingly cheap rates, and the same barrels may be

60 used over and over again from one season to another. Notwithstanding the fact that the barrel is constructed in the shape of the frustum of a cone inverted, yet by reason of the fact that the several rings that encircle

65 the exterior of the barrel are all of the same diameter, said barrel may be rolled conven-

iently and in the same manner as if it were entirely cylindrical.

It is to be understood that changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle of sacrificing any of the advantages of this invention.

Having described our invention, what we claim is—

1. A shipping barrel, box or crate, consisting of telescopic sections, stops arranged at the ends of the sections to prevent their total disengagement, rings encircling the sections, standards extending loosely through the rings

80 and provided with joints, whereby they may be folded, substantially as specified.

2. A shipping barrel, box or crate combined with a series of telescopic sections, of rings surrounding the same and provided with openings, standards extending from the bottom ring through the openings in the remaining rings, stops for preventing the separation of the sections, and locking devices between the rings and standards, substantially as specified.

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3. In a shipping barrel, box or crate, the combination with a series of telescopic cylindrical sections, and stops for preventing the separation of the same, of a series of circular

95 rings embracing the sections and of uniform diameter, the said rings with the exception of the bottom ring having openings, standards secured to the bottom and passing through the openings of the remaining rings and provided above each of said rings with folding joints, and locking devices between the rings and standards, substantially as specified.

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4. In a shipping barrel, box or crate, the combination with a series of sections telescopically connected, a series of rings secured to the bottoms of the sections and extending beyond the outer and inner surfaces thereof, a series of rings secured to the upper edges of the intermediate sections and projecting

110 internally, whereby they are adapted to abut against the bottom rings of the sections thereabove, an external ring at the upper edge of the upper section, a series of standards secured to the bottom ring and passing through

115 perforations in the externally projecting rings, joints formed in the standards above said externally projecting rings, with the exception of the uppermost, perforations formed in the standards below the joints, and sliding

120 keys secured to the rings and adapted to engage said perforations, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures

125 in the presence of two witnesses.

CLIFTON BENNETT DARE.
JULIAN DUANE HALL.

Witnesses:

M. G. FITZ ROY,
FRITZ F. KLOKOW.