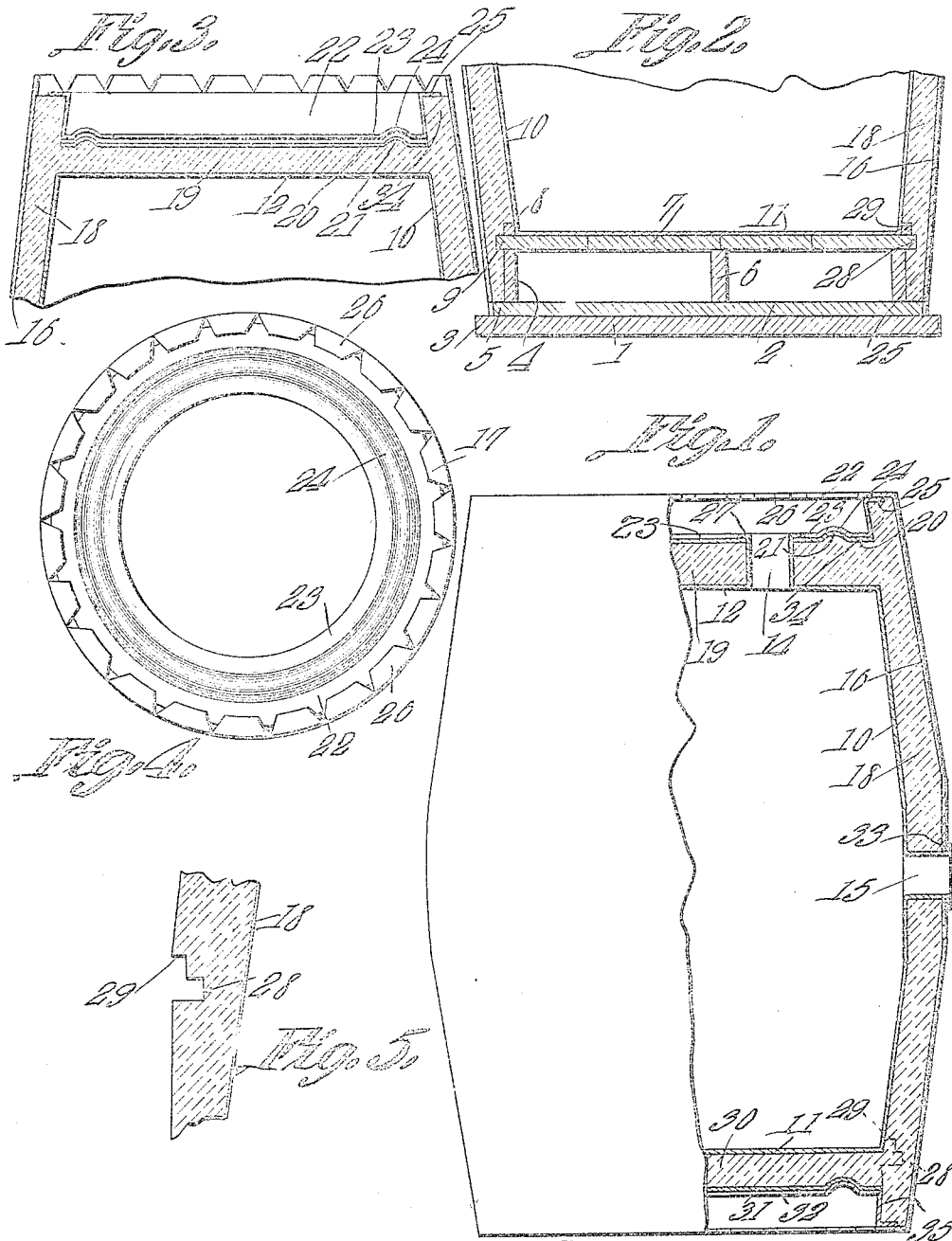


J. M. THOMPSON.
CONCRETE KEG.

APPLICATION FILED FEB. 10, 1912.

1,056,232.

Patented Mar. 18, 1913.



Witnesses

J. M. Thompson
W. H. Wilson

Jacob M. Thompson, Inventor
by *C. H. Snow & Co.* Attorneys

UNITED STATES PATENT OFFICE.

JACOB MULLEN THOMPSON, OF FOND DU LAC, WISCONSIN.

CONCRETE KEG.

1,056,232.

Specification of Letters Patent.

Patented Mar. 18, 1913.

Application filed February 10, 1912. Serial No. 676,388.

To all whom it may concern:

Be it known that I, JACOB M. THOMPSON, a citizen of the United States, residing at Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented a new and useful Concrete Keg, of which the following is a specification.

The present invention, broadly speaking, aims to provide a reinforced concrete keg or barrel, having great strength, thereby to resist external strains due to rough handling, and to resist internal strains due to fermentation.

A further object of the invention is to provide a chine ring of novel form, adapted at once, to protect the end of the chine and to constitute a means for holding the head of the barrel in place.

A further object of the invention is to provide a keg or barrel including an outer case, adapted to retain a chine ring, which ring, in its turn, serves to hold the head of the barrel in place.

The invention aims to provide a barrel including inner and outer members, the inner member being provided with projecting tubes, one of which engages the outer member, the other of which engages the head of the barrel.

Another object of the invention is to provide a reinforced concrete barrel, the side wall of the concrete portion of which, and the end wall of the concrete portion of which, are provided with interengaging elements, fashioned by grooving the inner face of the side wall, in a novel and improved manner.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings.—Figure 1 shows in sectional side elevation, a keg or barrel constructed in accordance with the present in-

vention; Fig. 2 is a transverse section, showing one end of the barrel in the process of formation; Fig. 3 is a transverse section showing one end of the barrel, partially completed; Fig. 4 is an end elevation; and Fig. 5 is a fragmental longitudinal section of one end of the concrete portion of the structure.

Although the present invention relates to the keg, as an article of manufacture, the invention will be understood best, if the successive steps in the manufacture of the keg are described, in connection with the structure of the keg itself.

In fashioning a keg in accordance with the present invention, a molding structure is provided, the same including a base 1, upon which rests a pallet 2, the pallet 2 ordinarily being of circular outline. The periphery of the base 1 protrudes beyond the periphery of the pallet 2, as indicated at 3. Superposed upon the pallet 2 is a ring 4, the periphery of the pallet 2 projecting beyond the periphery of the ring 4, as indicated at 5. Extended transversely of the ring 4, and resting upon the pallet 2, is a brace 6. Resting upon the brace 6 and upon the ring 3 is a platform 7, which preferably consists of a plurality of sections. Superposed upon the platform 7 is a ring 8, of materially less height than the ring 4, the periphery of the platform 7 projecting from the periphery of the ring 8, as indicated at 9.

The keg which constitutes the subject-matter of the present invention includes a lining 10, provided at its ends with heads or end walls 11 and 12, the head 11 preferably being imperforate, the head 12 being provided with a projecting spigot tube 14. Outstanding from the side wall of the lining 10 is a bung tube 15.

In fashioning a keg in accordance with the present invention, the lining 10 is placed upon the platform 7, the imperforate head 11 of the lining 10 resting upon the platform, the lining being inclosed by the ring 8. The invention further includes a tubular case 16, of greater diameter than the lining 10. The case 16 is placed about the lining 10, one end of the case surrounding the pallet 2 and

resting upon the base 1. Both ends of the case 16 are notched to form a plurality of tapered tongues 17.

When the parts are positioned as shown in Fig. 2, a mass of cementitious material, preferably concrete, is placed between the lining 10 and the case 16, as shown at 18, the mass of concrete being tamped down upon the pallet 2. The concrete is extended across the head 12, as shown at 19, and may be extended upwardly, to form a chine 34, a similar chine 35 being formed between the ring 4 and the lower end of the case 16.

Upon the portion 19 of the concrete body, is placed a head 20, provided adjacent its periphery with an outstanding annular bead 21. A chine ring 22 is provided, the same engaging the inner face of the chine 34. The chine ring 22 is equipped with oppositely extended flanges 23 and 25, the flange 23 overlapping the head 20, and being provided with an annular bead 24, adapted to inter-engage with the annular bead 21 of the head 20. The flange 25 of the chine ring extends outwardly, but terminates short of the case 16, thereby to leave an opening, through which the chine 34 may be completed. The tongues 17 which are fashioned at the end of the case 16 are then beaten down, as indicated at 26, to overlap the flange 25 of the chine ring, and to serve as a closure for the space existing between the periphery of the flange 25 and the case 16. The outer end of the spigot tube 15 protrudes through the head 20, and is turned down to form a projecting flange 27, engaging the head 20. The bung tube 13 protrudes through the case 16, and the outer extremity of the bung tube is fashioned into a flange 33, overlapping the outer face of the case.

One end of the keg will thus be completed. In fashioning the other end of the keg, the lining 10, the case 16 and the cementitious body which lies between the lining and the case, are lifted off the base 1. The ring 4 is then removed, and since the platform 7 is constructed in a plurality of sections, the platform may be removed peripherally from the concrete body of the keg, thereby fashioning a groove 28, seen to best advantage in Fig. 5. The ring 8 is separable from the platform 7, and the ring 3 is then slipped out of the body of the keg, forming a groove 29. The grooves 28 and 29 communicate, the groove 28 extending approximately parallel to the side wall of the lining 10, and the groove 29 extending approximately parallel to the end wall or head 11 of the lining. The keg is then inverted, and a mass of concrete, indicated at 30, is placed upon the head 11, the mass of concrete 30 engaging in the grooves 28 and 29, and interlocking firmly therein. If the concrete

indicated at 18 has not been permitted to take too firm a set, the mass of concrete indicated at 30 will become monolithic with the mass of concrete indicated at 18. Upon the concrete 30 is placed a head 31, similar to the head 20, saving for the fact that the head 31 is devoid of the spigot tube 14. The chine ring is mounted in place, as indicated at 32, the last mentioned chine ring and the head 31 being provided with the interlocking annular grooves hereinbefore described, the end of the tubular case 16 being extended across the flange of the chine ring, as hereinbefore set forth.

The completed keg will appear as shown in Fig. 1, and therefrom it will be perceived that the keg will possess great strength to resist either internal or external strains.

The case 16, the lining 10, the tubes 14 and 15, the heads 31 and 20, and the chine ring 22 are fashioned from metal. Although the metal parts of the structure are shown severally, as being integrally formed, it is obvious that this construction may be departed from when necessary. In order to secure the tongues 17 in the positions shown at 26, the tongues may be soldered to the flange 25 of the chine ring, or may be attached thereto in any other desired manner.

Having thus described the invention, what is claimed is:—

1. A keg comprising a lining; a tubular case surrounding the lining laterally; a body interposed between the lining and the case and extended across the end of the lining; a head superposed upon that portion of the body which extends across the end of the lining, the body protruding beyond the head to form a chine, and the end of the case terminating in a flange overlapping the end of the chine.

2. A keg comprising a lining, a tubular case surrounding the lining laterally; a body interposed between the case and the lining and extended across the end of the lining, one end of the body forming a chine; a chine ring extending around the inner face of the chine, the ring having oppositely disposed flanges, one of which extends transversely of the chine, the other of which overlies that portion of the body which is extended across the end of the lining.

3. A keg comprising a lining; a tubular case surrounding the lining laterally; a body interposed between the case and the lining and extended across the end of the lining, one end of the body forming a chine; a chine ring extending around the inner face of the chine, the ring having oppositely disposed flanges, one of which extends transversely of the chine, the other of which overlies that portion of the body which is extended across the end of the lining; the case

terminating in a projecting flange overlapping the first mentioned flange of the chine ring.

4. A keg comprising a lining; a tubular case surrounding the lining laterally; a body interposed between the case and the lining and extended across the end of the lining, one end of the body forming a chine; a chine ring extending around the inner face of the chine, the ring having oppositely disposed flanges, one of which extends transversely of the chine, the other of which overlies that portion of the body which is extended across the end of the lining; and a head interposed between the last mentioned flange of the chine ring and that portion of the body which is extended across the end of the lining.

5. A keg comprising a lining; a tubular case surrounding the lining laterally; a body interposed between the case and the lining and extended across the end of the lining, one end of the body forming a chine; a chine ring extending around the inner face of the chine, the ring having oppositely disposed flanges, one of which extends transversely of the chine, the other of which overlies that portion of the body which is extended across the end of the lining; the case terminating in a projecting flange overlapping the first mentioned flange of the chine ring; and a head interposed between the last mentioned flange of the chine ring and that portion of the body which is extended across the end of the lining.

6. A keg comprising a lining; a tubular case surrounding the lining laterally; a cementitious body interposed between the case and the lining and extended across the end of the lining, one end of the body forming a chine; a chine ring extending around the inner face of the chine, the ring having oppositely disposed flanges, one of which extends transversely of the chine, the other of which overlies that portion of the body which is extended across the end of the lining; the periphery of the first specified flange of the chine ring being spaced from the case, to permit a finishing of the chine after the chine ring is in place.

7. A keg comprising a lining; a tubular case surrounding the lining laterally; a cementitious body interposed between the case and the lining and extended across the end of the lining, one end of the body forming a chine; a chine ring extending around the inner face of the chine, the ring having oppositely disposed flanges, one of which extends transversely of the chine, the other of which overlies that portion of the body which is extended across the end of the lining; the first specified flange of the chine ring being spaced from the case, to permit

a finishing of the chine, after the chine ring is in place; there being a flange upon the case, covering the gap between the periphery of the first specified flange of the chine ring and the case.

8. A keg comprising a lining; a tubular case surrounding the lining laterally; a body interposed between the case and the lining and extended across the end of the lining, one end of the body forming a chine; a chine ring extending around the inner face of the chine, the ring having oppositely disposed flanges, one of which extends transversely of the chine, the other of which overlies that portion of the body which is extended across the end of the lining; and a head interposed between the last mentioned flange of the chine ring and that portion of the body which is extended across the end of the lining; the head and said last specified flange of the chine ring being provided with interengaging elements.

9. A keg comprising a lining; a tubular case surrounding the lining laterally; a cementitious body interposed between the lining and the case and extended across the end of the lining; a head superposed upon that part of the body which is extended across the end of the lining, the body protruding beyond the head to form a chine, and the end of the case being provided with a plurality of tapered tongues adapted to be bent down to overlap the end of the chine.

10. A keg comprising a lining; a tubular case surrounding the lining laterally; a body interposed between the lining and the case and extended across the end of the lining; a head superposed upon that part of the body which is extended across the end of the lining, the body protruding beyond the head to form a chine; a chine ring surrounding the inner face of the chine, the chine ring terminating in oppositely extended flanges, one of which overlaps the head, the head and said flange being provided with interengaging elements, the other of which flanges overlies the end of the chine, and is peripherally spaced from the case, the end of the case being overlapped upon the last mentioned flange, to bridge the space between the periphery of said flange and the case.

11. A keg comprising a lining including a side wall and an end wall; a case surrounding the lining; a cementitious body interposed between the lining and the case and projecting beyond the end wall of the lining, there being communicating, angularly disposed grooves in the inner face of the body, one groove being approximately parallel to the side wall of the lining, the other groove being approximately parallel to the end wall of the lining; and a cementitious

closure extended across the end wall of the lining and interlocked in the grooves.

12. A keg comprising a lining; a body inclosing the lining and extended across the end of the lining, there being a head resting upon that portion of the body which extends across the end of the lining, a portion of the body being extended beyond the head to form a chine; and a chine ring extended
10 around the inner face of the chine, the chine

ring having oppositely disposed flanges, one of which overlies the head, the other of which overlies the end of the chine.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JACOB MULLEN THOMPSON.

Witnesses:

ALFRED S. WILKINSON,
WM. GREENE.