A. T. KRUSE.

METALLIC BARREL.

APPLICATION FILED AUG. 8, 1906.

905,192. Patented Dec. 1, 1908.

Fig. 1

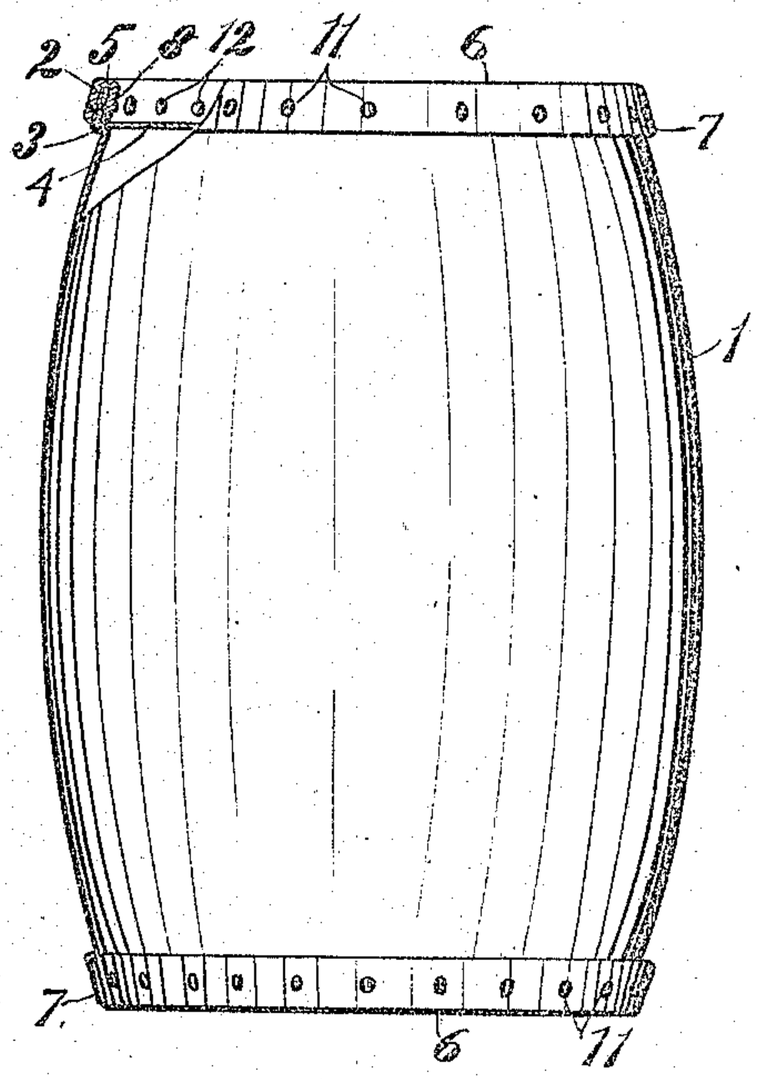


Fig. 2.

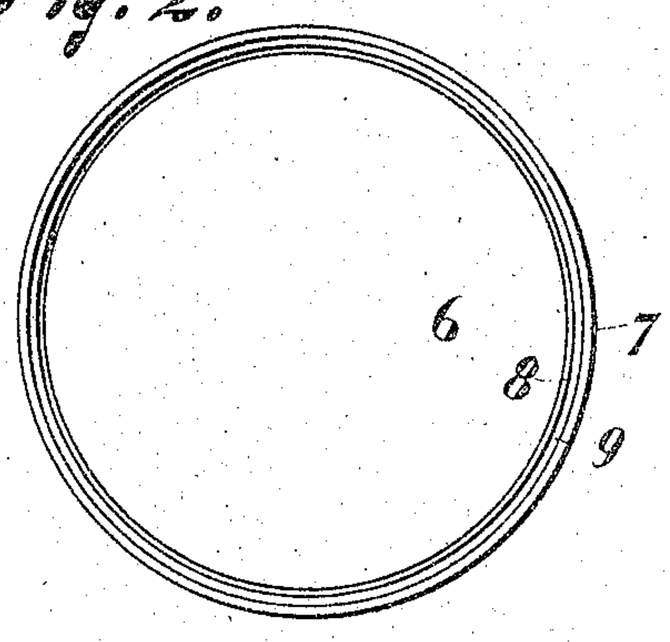


Fig. 3.

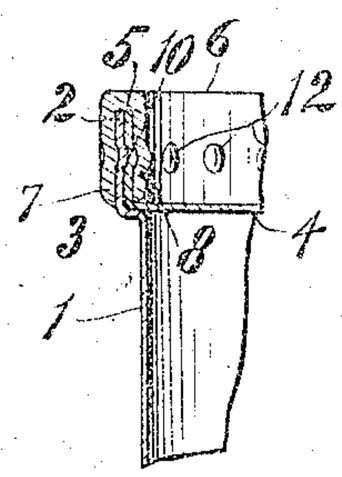
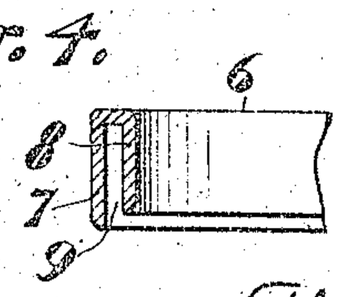


Fig. 4.



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UNITED STATES PATENT OFFICE.

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METALLIC BARREL.

No. 905,192. Specification of Letters Patent. Patented Dec. 1, 1908.

Application filed August 8, 1906. Serial No. 329,698.

To all whom it may concern:

Be it known that I, ALFRED T. KRUSE, a citizen of the United States, residing at Defiance, in the county of Defiance and State of Ohio, have invented certain new and useful Improvements in Metallic Barrels, of which the following is a specification.

My invention relates to improvements in the construction of receptacles and particularly to the construction of metallic barrels and analogous vessels designed to carry fluids or other substances which necessitate a fluid or liquid-tight receptacle.

The invention relates more particularly to the method of constructing and means for securing the head or end to the main body portion of the barrel or vessel and uniting the meeting edges thereof to form a fluid-tight barrel or package.

One of the great difficulties in the manufacture of steel barrel has been the matter of securing the heads to the body in a proper, cheap and expeditious manner, and this remark applies with especial force to the securing of the second head. In securing the first head a die or form may be placed in the body so as to prevent the head from slipping out of place or into the body while it is being secured; and, when secured, the die or form may be slipped out of the body of the barrel through the opening at the other end. This method cannot be used with the second head the securing of which in a proper, cheap and expeditious manner presents great difficulties which I have overcome in my invention by rolling or pressing in each end of the drum or body portion of the barrel an annular shoulder and flange on and in which the head is set being prevented by said shoulder from being forced into the body of the barrel any further than the depth of the flange while the flange of the head is being secured to the flange of the body by means of a clamping-member or locking-ring taking over and securing the meeting flanges thus securely positioned.

The paramount object of the invention is to produce a generally improved sheet-metal vessel which will be exceedingly simple in construction, cheap of manufacture, and durable in use.

With these ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring now to the accompanying drawings, forming a part of this specification, Figure 1, is a side elevation of a barrel embodying my invention, with parts broken away to show construction. Fig. 2, a plan view of the improved clamping or locking-ring or member for attaching the heads to the main body portion of the barrel. Fig. 3, a detail view showing relative position of the engaging flanges of the head and body portion of the barrel with clamping-member attached. Fig. 4, a detail sectional view of a portion of the clamping-member or locking-ring showing position of its walls preparatory to being clamped about the flanged portions of the head and body of the barrel to form the chime for the same, as shown in Figs. 1 and 3.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The main body or cylindrical portion 1, of the barrel or receptacle may be of any suitable and convenient form and is provided at each end with annular flanges 2, and shoulders 3, adapted to support the heads or ends to be now described.

The heads or ends 4, of the barrel or vessel, may be of any suitable and convenient form and have their edges bent up to form annular flanges 5, abutting against the inner periphery of the flanges 2, and each head rests upon the shoulder 3, with the edge of the flange 5, preferably flush with the adjacent edge of the flange 2, as shown in Figs. 1, and 3, of the drawings.

The flanges of the heads or ends and the main body portion are securely locked or crimped into engagement with each other by means of a clamping-member or locking-ring or band 6, consisting of a main body-supporting-member or side wall 7, and a second or auxiliary bendable locking and clamping-flange or member 8; thus providing an annular recess 9, adapted to take over and receive the flanges of the main body portion and heads, as shown most clearly in Figs. 1, and 3, of the drawings.

When the heads have been placed within the ends of the barrel or vessel, as shown and described, the clamping-member or locking-ring 6, is placed or forced down over the abutting flanges of the heads and

body portion and the members 7, and 8, are crimped about the same by means of a suitable crimping or pressing-roll having a series of studs or protuberances adapted to crimp and press in said members and the flanges 2, and 5, interposed between the same, a series of registering and engaging indentations or depressions 10, in said flanges, and like indentations or depressions 11, in one of the members with a like series of studs 12, in the other. The clamping-member or locking-ring 6 is formed of suitable malleable material, and when crimped and clamped about the parts as above described, may be further fastened by brazing at the meeting edges thereof with the contiguous walls of the barrel.

When the parts are secured as above described, it will be observed that the parts are securely interlocked with each other by means of the series of registering indentations or depressions formed therein.

From the foregoing description, taken in connection with the accompanying drawings, the principles of construction and advantages of my invention will be readily understood.

Having thus described my invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, I declare that what I claim and desire to secure by Letters Patent is,—

1. A barrel or similar vessel, comprising a main body portion provided with annular flanges and shoulders, heads provided with annular flanges mounted therein and resting on said shoulders, and clamping-members taking over said flanges of the body and heads and provided with a series of registering indentations engaging said flanges by means of a like series of indentations formed therein.

2. A barrel, comprising an end-flanged body provided with an annular shoulder, a flanged head mounted therein and abutting against said shoulder, and a clamping-member provided with a body-supporting-member and a bendable locking-flange taking over the edges of said body and head and provided with a series of indentations engaging therewith.

3. A barrel, comprising a body provided with an annular shoulder, a head mounted therein and resting on said shoulder, and a clamping-member provided with a bendable locking-flange taking over the edges of said body and head and secured thereto by means of a series of indentations engaging therewith.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED T. KRUSE.

Witnesses:
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