No. 733,728. PATENTED JULY 14, 1903.

A. MAUSER.

MACHINE FOR THE MANUFACTURE OF CASINGS.

APPLICATION FILED OCT. 28, 1902.

NO MODEL.

Fig. 1.

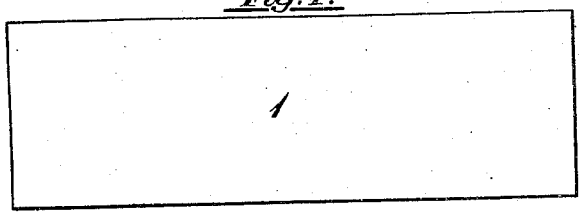


Fig. 2.

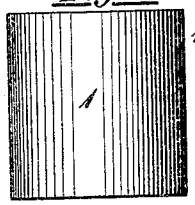


Fig. 3.

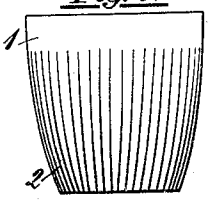


Fig. 10.

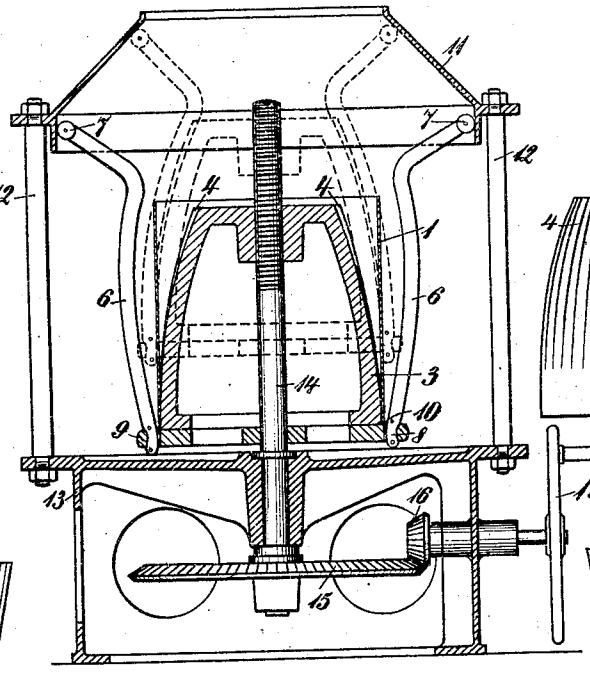


Fig. 11.

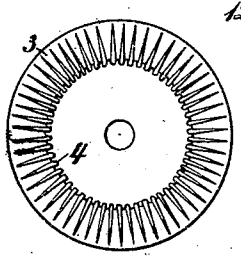


Fig. 12.

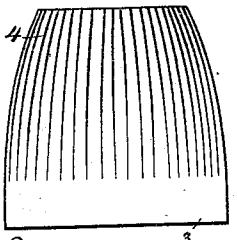


Fig. 4.

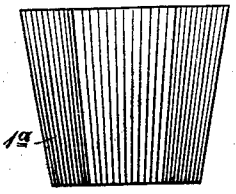


Fig. 8.

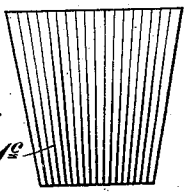


Fig. 6.

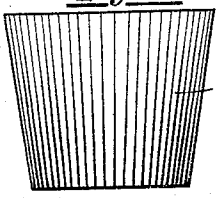


Fig. 5.

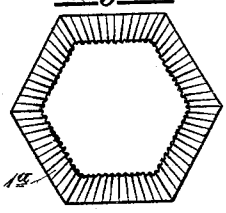


Fig. 9.

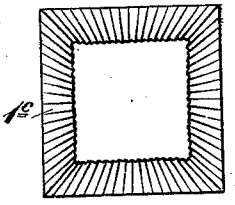
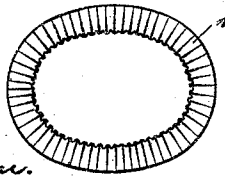


Fig. 7.



Witnesses
Albert Poskin
Virginia Thompson.

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Alfons Mauser
By Church & Church
Attys

No. 733,728. Patented July 14, 1903.

UNITED STATES PATENT OFFICE.

ALFONS MAUSER, OF COLOGNE, GERMANY.

MACHINE FOR THE MANUFACTURE OF CASINGS.

SPECIFICATION forming part of Letters Patent No. 733,728, dated July 14, 1903.

Application filed October 28, 1902. Serial No. 129,130. (No model.)

To all whom it may concern:

Be it known that I, ALFONS MAUSER, a citizen of the German Empire, residing at Cologne-Ehrenfeld, in the Province of the Rhine, Germany, have invented certain new and useful Improvements in Machines for the Manufacture of Casings, of which the following is a description, reference being had to the accompanying drawings, and to the figures of reference marked thereon.

This invention relates to machines employed in the manufacture of extremely light and yet resistant vessels or casings, preferably of thin sheet-iron, aluminium, or the like specially adapted for providing cheap, light, and handy cases for transporting carboys and bottles of acid, valuable liquids, and the like.

The object of the invention is to provide a simple and effective machine which will shape and corrugate the vessel from a blank at a single operation.

In the accompanying drawings, Figure 1 shows a flat blank. Fig. 2 shows it formed into a cylinder. Fig. 3 shows the cylinder rounded over at one end according to this invention. Figs. 4 and 5 show a hexagonal tapered vessel in elevation and plan, respectively, formed in accordance with this invention. Figs. 6 and 7 are two similar views of an oval-tapered vessel. Figs. 8 and 9 are similar views of a rectangular-tapered vessel. Fig. 10 is a sectional elevation of my improved machine for shaping the vessels. Figs. 11 and 12 are plan and elevation, respectively, of a rounded-over vessel.

The manufacture is effected in the following manner:

The base 13 of the machine is arranged horizontally, and supported above it upon standards 12 is a conical ring or frustum 11.

3 designates the core or former, having longitudinal tapering groove 4. The core will be of a shape to produce any desired contour of vessel, several different forms being shown in Figs. 3 to 9 and 11 and 12. The core 3 is mounted upon and in threaded engagement with a vertical screw-shaft 14, journaled in the center of the base 13, so as to be raised and lowered when the screw is rotated. Rotary motion is given the screw by the bevel-gears 15 and 16 and a hand-wheel 17 or other operating means.

6 designates a series of levers pivoted at 10 to the base of the core to swing inwardly into the grooves 4, and the upper ends of these levers are being outward within the conical ring 11 and there provided with antifriction-rollers 7, which travel up the interior inclined face of the ring when the core 3 is moved upwardly, this upward movement of the core causing the levers to be simultaneously inward toward the core.

The operation is as follows: A cylinder, Fig. 2, is first formed from a blank, Fig. 1, and placed upon the core, as shown in full lines, Fig. 10, and the shaft 14 is then rotated to raise the core, and with it the series of levers which, as shown in dotted lines, Fig. 10, will force the material inwardly against the core and give it the strengthening flutes or ribs and shape it according to the shape of the core employed. The opposite movement of the core will cause the levers to swing outwardly away from the finished casing, which may then be removed by reaching down through the ring 11 and lifting it from the core. Any desired number of the levers 6 may be provided, and they may be simultaneously or singly operated.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. A machine of the character described, comprising, a fluted core, a series of levers pivoted at one end to one end of the core, and extending longitudinally along the core to fit lengthwise into its grooves, and a conical ring with which the free ends of the levers engage, said ring and the core with its connected series of levers being relatively movable toward and from each other, whereby the conical ring will automatically force the levers inwardly throughout their length into the core-grooves.

2. A machine of the character described, comprising, a frame, a fluted core, an annularly-arranged series of levers pivoted at one end at the base of the core to swing inwardly and fit lengthwise into the core-grooves, means for moving the core and its series of levers

longitudinally and a stationary ring on the frame into which all of the levers extend; the ring and the levers being relatively inclined to cause the automatic inward movement of the series of levers when the core and levers are moved simultaneous in a longitudinal direction.

3. A machine of the character described, comprising, a frame, a screw-shaft journaled therein, a fluted core mounted on the screw-shaft for longitudinal movement thereby, a series of levers pivoted at their inner ends to the base of the core to move longitudinally therewith, and adapted to swing inwardly into the core-grooves throughout their lengths, a conical ring supported rigidly on the frame and in engagement with the free ends of the levers to force them automatically inwardly into the core-grooves as the core and levers are moved toward the ring.

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

ALFONS MAUSER.

Witnesses:
CARL SCHMITT,
GUSTAV GINNHOLD.