(No Model.)

# E. NEWMAN.

## COVER FASTENER FOR STORAGE VESSELS.

No. 506,928. Patented Oct. 17, 1893.

Fig. 2.

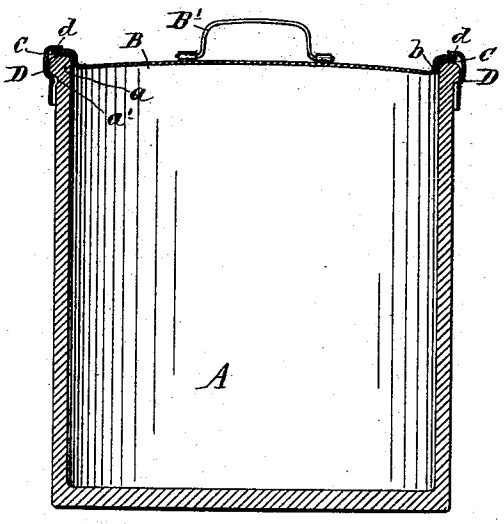



Fig. 1

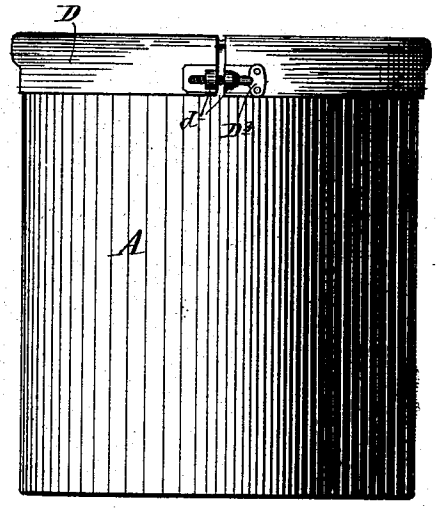



Fig. 9.

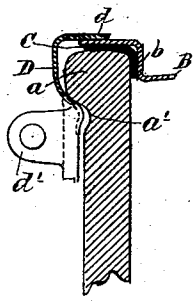



Fig. 4.

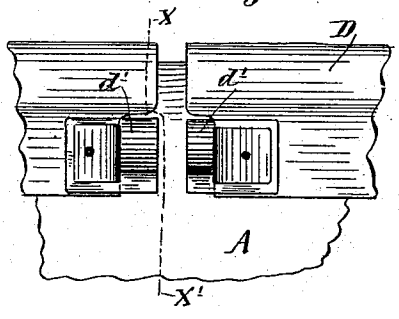



Fig. 3.

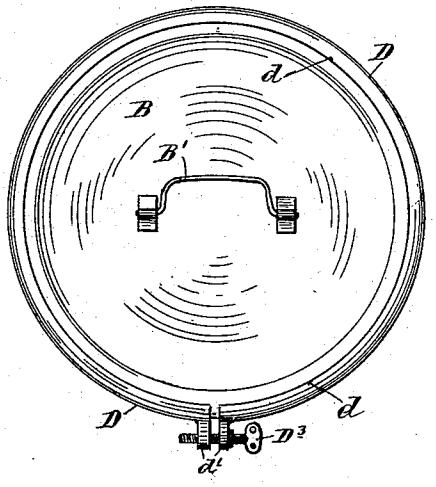



Fig. 7.

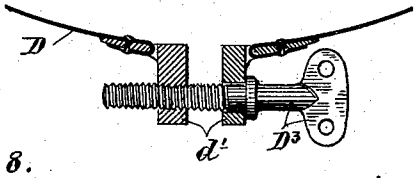



Fig. 8.

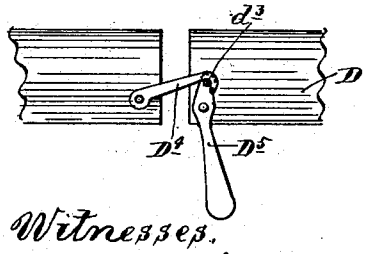



Fig. 6.

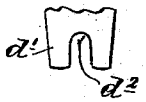
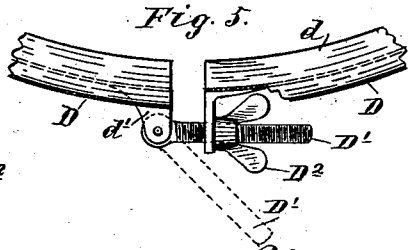



Fig. 5.




Witnesses.
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E. F. Elmore

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Jas. F. Williamson

# UNITED STATES PATENT OFFICE.

EMMA NEWMAN, OF MINNEAPOLIS, MINNESOTA.

## COVER-FASTENER FOR STORAGE-VESSELS.

SPECIFICATION forming part of Letters Patent No. 506,928, dated October 17, 1893.

Application filed July 29, 1892. Serial No. 441,602. (No model.)

*To all whom it may concern:*

Be it known that I, EMMA NEWMAN, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Cover-Fasteners for Storage-Vessels; and I do hereby 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 packing and storing vessels and has for its object to provide an efficient means for securing the cover to the vessel with an air-tight joint.

The invention was especially designed for use on jars, of the standard types; used in the packing and storage of butter, lard, fruits, sirups and other articles, which deteriorate on exposure to the air. As is well known, this class of vessels usually have an enlarged beaded or grooved rim. Taking advantage of this fact, I provide a fastening device for the cover, consisting of a clamping ring, adapted to fit over the enlarged or beaded part of the rim, or work in the groove of the same, which is provided with an inturned flange adapted to rest upon the margin of the jar cover, and secure the same to the cover when the clamping band or ring is tightened. This clamping-band is so formed, that the portion of its surface which engages the under side of the enlarged head or rim of the jar, will, when the said clamping-ring is tightened thereon, have a camming action therewith, which will draw down on the cover, clamping the same onto the jar. The clamping ring is provided with and its two ends are secured by, a tightening or drawing device, of any suitable kind, located at a point below the part of the band, which fits over the rim of the jar. Hence, when the band is tightened or clamped to the jar, it will draw downward and cause the inturned flange to draw on the margin of the cover. Supposing the bearing surfaces of the jar and the cover to be perfectly smooth and true, an air-tight joint, or substantially air-tight joint could be secured with the parts already named. But to insure this result, I employ a gasket of yielding material, and of a composition impervious to air, such for example as rubber, felt, or asbestus; which gasket I place between the bearing surfaces of the jar and the cover. The cover is preferably made with an offset or shouldered margin, so as to bear against the vertical and top surfaces of the jar's mouth, and the gasket is of a width to fit over the corresponding surfaces or inner edge of the jar-mouth. When this gasket is thus applied and the clamping ring or band is tightened, the cover will be secured with an absolutely air-tight joint.

In the accompanying drawings, I have illustrated the invention as applied to a common stone jar, such as is used in storing butter.

Like letters refer to like parts.

Figure 1 is a side elevation of the jar, with the cover sealed or secured thereto. Fig. 2 is a vertical cross-section of the same. Fig. 3 is a plain view of the same. Fig. 4 is an enlarged view of the meeting ends of the divided clamping ring or band, with the tightening or drawing device removed. Fig. 5 is a similar view in plan, showing one form of my fastening or drawing device with the clamping ring; and Fig. 6 is a detail of the same. Fig. 7 is a view somewhat similar to Fig. 5, showing the two ends of the clamping band in section, with a slightly different form of drawing or tightening device. Fig. 8 shows in side elevation a further modification of the tightening or drawing device. Fig. 9 is a section on the line X X′ of Fig. 4.

A is the jar and *a* the enlarged rim of the same.

*a′* is a groove on the exterior of the jar directly below the rim.

B *b* is the jar cover, of which B is the main portion or body, and *b* the shouldered or offset margin for bearing on the top and side surfaces of the jar's mouth, as before stated.

B′ is the cover-handle.

C is the gasket between the bearing surfaces of the cover and the jar and D *d* is the divided clamping ring, of which D is the body or main portion of the band, and *d* the inturned flange, which rests on the margin of the cover.

As shown in Figs. 5 and 6, the two ends of the clamping band are provided with drawing lugs *d′*, fitted with a tightening device,

which is preferably in the form of a screw threaded bolt D′, pivoted to one of the lugs $d'$, and engaging in a slot $d^2$ of the other lug, and provided with a thumb-nut $D^2$. With this form of the tightening device, when the nut is loosened, the bolt may be swung out or in to the slot $d^2$, for the removal of the tightening of the cover. It is further convenient, in that the tightening device always remains attached to the band.

In the form of the device shown in Fig. 7, a screw-threaded and shouldered thumb-bolt $D^3$ is employed, which works through a hole in one of the lugs $d'$, and into a screw-threaded hole or seat in the other lug.

In the modification shown in Fig. 8, a pivoted hook $D^4$ applied to one end of the band co-operates with the hand-lever $D^5$, pivoted to the other end of the band, to effect the clamping action. The lever $D^5$ has a stud $d^3$, which is engaged by the end of the hook $D^4$. The pivots of the hook and the lever and the pin $d^3$, are so related that in the clamping action, the lever will be thrown by the dead center, so as to bring the stud $d^3$, into or below the line of the pivots, so that the band will be secured in its tightened or clamped position.

Although especially designed for use on jars or similar vessels, as before noted, it will be understood that the invention is also capable of use with immaterial modifications on cans or cups, for a like purpose.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

The combination with the jar A, having the enlarged external rim or bead $a$ and the external groove $a'$ below said bead, of the cover B having the offset marginal flange $b$, the gasket C between the cover margin $b$ and the top of the jar rim $a$, the divided clamping band D, of a width greater than the jar body $a$, having the inturned top flange $d$, and a tightening device applied to the meeting ends of said band at a point below the level of the jar bead $a$, whereby, under the action of said tightening device, drawing over the bead $a$, the said band will be drawn downward and form an air tight joint between the cover and the top of the jar rim, substantially as described.

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

EMMA NEWMAN.

Witnesses:
EMMA F. ELMORE,
JAS. F. WILLIAMSON.