

G. A. REED.
Head-Lining for Barrels.

No. 136,763.

Patented March 11, 1873.

Fig. 1.



Fig. 2.

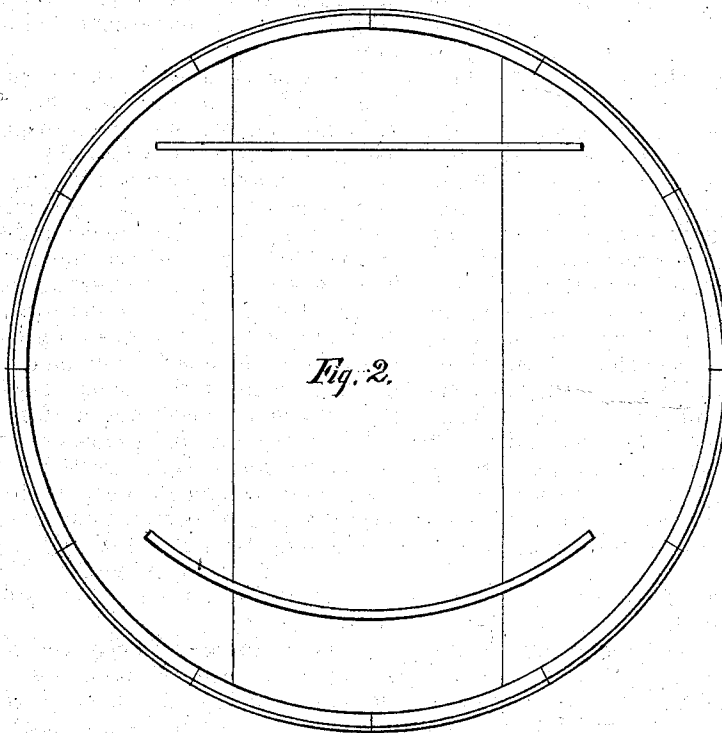


Fig. 3.

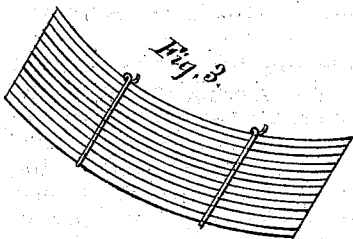


Fig. 4.

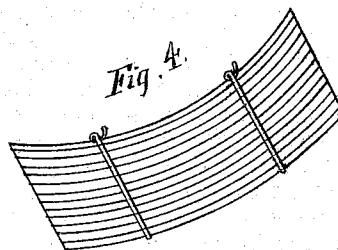
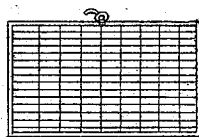


Fig. 5.



Witnesses:

James L. Norris.
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UNITED STATES PATENT OFFICE.

GEORGE A. REED, OF NEW YORK, N. Y.

IMPROVEMENT IN HEAD-LININGS FOR BARRELS.

Specification forming part of Letters Patent No. 136,763, dated March 11, 1873.

To all whom it may concern:

Be it known that I, GEORGE A. REED, of the city, county, and State of New York, have invented an Improvement in Head-Linings of Barrels, of which the following is a specification:

My improvement relates to the head-linings used on sugar, flour, fruit, salt, and other kinds of slack barrels; and consists in forming the lining by cutting a straight splint from the lumber and subsequently crimping it in a suitable machine, by which it is bent to the curved shape of the barrel to which it is to be applied; the object of the improvement being to obviate the objections to the common head-linings of requiring them to be soaked before use and bent as they are applied, necessitating the driving of a large number of nails to retain them when dry, and also the want of accurate fitting against the barrel-head or chime, together with frequent splitting, after having been applied, in consequence of having been bent the wrong way of the grain.

Figure 1 is a view of one of my crimped linings. Fig. 2 is a plan of a barrel-head, showing both the improved and common head-lining ready to be applied. Figs. 3 and 4 are side views of the bundles of crimped linings as made up for transportation. Fig. 5 is an end view of the same.

The method of manufacture is as follows: The linings are first cut from any suitable timber, preferably elm, into straight splints or slats of the dimensions adapted to the purpose. They are then passed endwise through a machine consisting of two or more rollers, which revolve together, and are so arranged in relation to each other that they impart a curve to the slats corresponding with the curvature of the barrel-head or chime for which they are designed. These rollers, or one or more of them, are preferably fluted or provided with teeth or grooves on their surfaces, which have the effect to "crimp" or corrugate the fibers of the wood, measurably disturbing their continuity, and thereby overcoming the tendency of the slat to spring back and become straight.

In feeding to the crimping-machine they are selected and so inserted that if the grain is

not parallel with their length the curve shall be formed in the direction of the grain as far as can be conveniently done and not contrary to it.

When so crimped they are put in square bundles of two hundred and fifty or five hundred and tied or wired for transportation and use, as seen in Figs. 3, 4, and 5.

When cut and crimped in this manner the linings are applied with less labor, as it is only necessary to place them against the chime of the barrel and secure them with nails, of which a less number answers the purpose than for the uncrimped ones, because the natural tendency of the wood to spring back straight has been permanently overcome by the crimping, and owing to this cause they fit or "hug" the head more closely and uniformly.

When straight linings are used they have to be soaked for some hours before use, so that the cooper can bend them as he nails them on, requiring more time and labor, while the subsequent drying increases the tendency of the wood to split, especially if bent across the grain, so that many fail after they are put on.

I wish it to be distinctly understood that I do not claim bent barrel-hoops, as such are old and form no part of my invention. My linings are intended for an entirely different purpose, and afford a new, reliable, and cheap article of commodity, not only for the manufacturer of barrels, but also for the merchant and consumer.

In commission houses, where it is essential to remove the head of barrels to display the contents of the same, my head-linings can always be readily removed and replaced—that is, if formed as described by corrugating the fibers of the wood in the direction of their length, measurably disturbing their continuity, whereby their tendency to spring back is avoided.

It will be found that all splitting and splintering, which is present now in head-linings, will not occur with the linings produced by me. It should also be noticed that by corrugating the fiber in the direction of the length of the wood I accomplish another result—that is, that I can pack the same in square bunches ready for the market, and that each lining

will always retain its circular form owing to the corrugated condition of the fibers, and at the same time I dispense with soaking.

I am aware that hoops for barrels have been crimped or permanently bent before setting prior to my invention. This I do not claim; but

What I claim, and desire to secure by Letters Patent, is—

As a new article of manufacture, barrel-head

linings, prepared in the manner specified, when bundled as shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEO. A. REED.

Witnesses:

WM. F. MCNAMARA,
KATE N. JONES.