J. KASTEN.

Cylinder for Cockle-Separators.

No. 221,735. Patented Nov. 18, 1879.

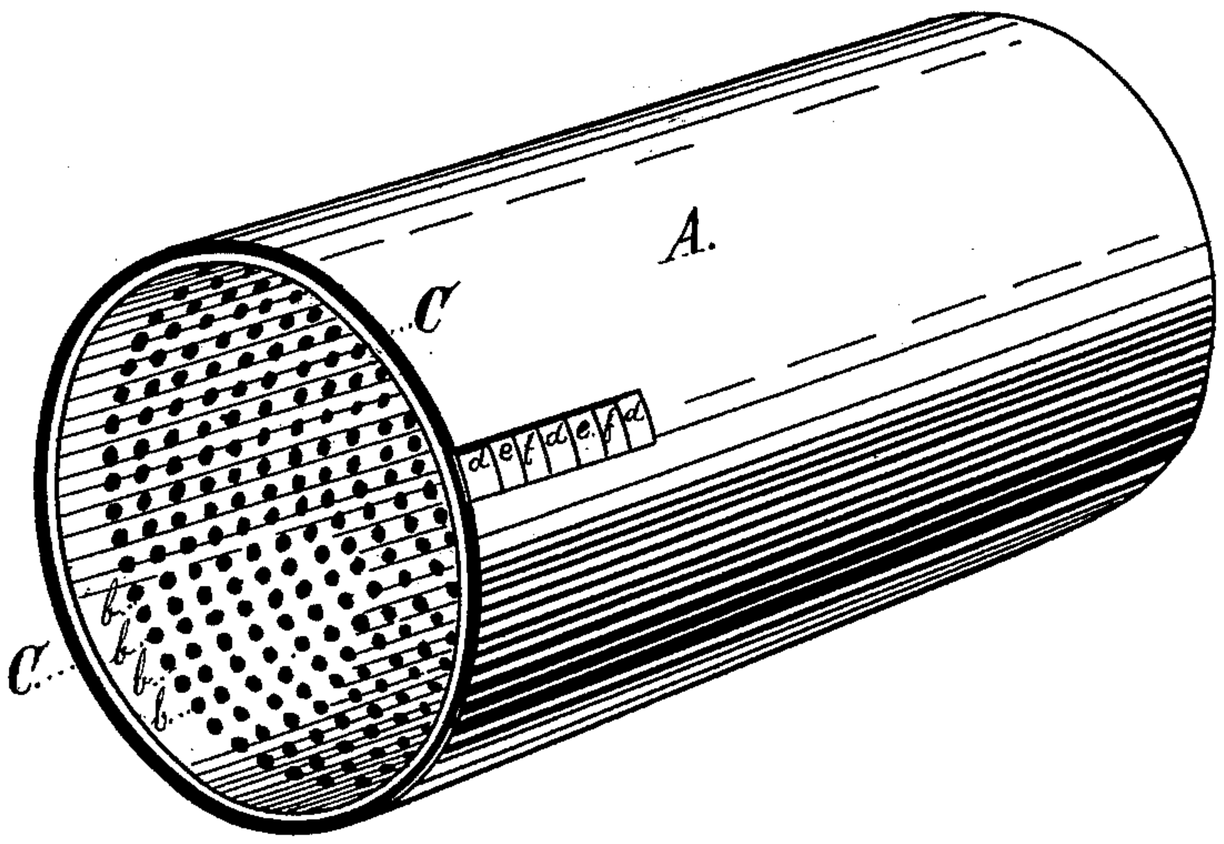

Fig. 1.

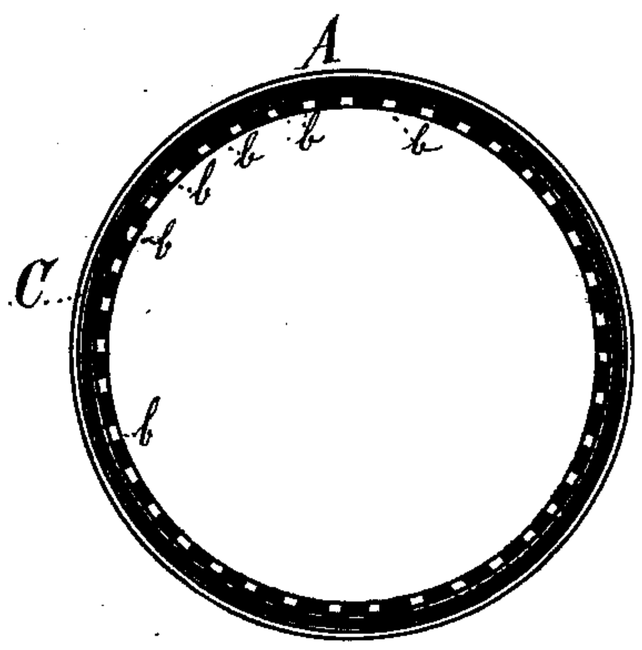

Fig. 2.

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JULIUS KASTEN, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN CYLINDERS FOR COCKLE-SEPARATORS.

Specification forming part of Letters Patent No. **221,735**, dated November 18, 1879; application filed April 12, 1879.

To all whom it may concern:

Be it known that I, JULIUS KASTEN, of the city of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Cylinders for Cockle-Separators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the accompanying drawings represents a perspective view of my invention. Fig. 2 represents a transverse section of the same.

The object of my invention is to furnish an improvement in cockle-separators; and it relates more particularly to the construction of the cylinders for separating the cockle from the wheat.

Heretofore it has been customary to construct the cylinders from soft metals which admit of being indented. Such a construction has, however, proven defective, from the fact that it is difficult to make the indentations deep enough to retain cockle without puncturing the holes entirely through the plate. It has also proven difficult to make indentations near enough together to accomplish the object intended.

The expense of the soft metal or composition required for indented cylinders is another serious objection to them, while my perforated cylinders may be constructed of sheet iron or other less expensive material.

When the cylinders have been formed and punctured at short intervals with small holes throughout its entire surface, it is then covered with a coating of cement and paper, cloth, or other thin flexible fabrics, which together unite to form a hard inflexible body, which becomes rigidly attached to the cylinder.

My invention consists both in the process of constructing the covering and the application of the same to the perforated cylinder, as further explained by reference to the accompanying drawings, in which similar letters of reference indicate like parts.

A represents the cylinder, which may be constructed of sheet-iron or other sheet metal. *b* are small perforations, which are cut entirely through the plate, their diameter being a little greater than the largest cockle. C is the covering, which consists of a series of layers of paper, cloth, or other thin flexible fabrics, *d e f*, and a cement which is spread upon and interspersed between the fabrics, and both unite to form a hard inflexible body, which becomes fixed upon and adheres rigidly to the metallic cylinder, thus forming a closely-fitting jacket or cover to the same, which cannot be displaced, and between which and the cylinder it is impossible for dust, sand, or small seeds to enter.

The process of thus covering my cylinder is as follows: I first prepare and thoroughly mix together a solution consisting of three parts glue to one part each of isinglass and boiled linseed-oil, which I spread upon thin flexible fabrics, paper being preferred, which fabrics are spread or wound one after another upon the cylinder, as mentioned, each fabric being first covered with the above solution. When the covering is thus applied the whole is covered with a solution consisting of glue, two parts, (thin;) isinglass, one part, and boiled linseed-oil, one-tenth part, mixed with any coloring material desired. After all has become thoroughly dry it is painted over with a thin solution of shellac.

The covering thus prepared and applied soon becomes hard and smooth and firmly fixed to the metal. The solution applied to the first layer of paper enters a slight distance into the perforations, and becomes hardened and fixed to the inner walls of the perforations, and thus aids in securing the cover more permanently to the cylinder. The solution also forms, when hardened, a concave bottom to each perforation, which prevents the cockle from becoming lodged therein.

I am aware that perforated cylinders have previously been covered with tin and other sheet metal; but such coverings have proven inefficient and defective, as they could not be closely fitted to the cylinder or rigidly secured thereto, thus allowing fine sand and other substances to enter between the covering and the metal, which loosens the covering and so deranges the machine that it cannot operate

properly, all of which defects I have by my invention overcome.

Having thus described my invention, I do not claim a perforated cylinder or a jacket, broadly, for I am aware that they are not new; neither do I confine or limit myself to the particular ingredients forming the solutions mentioned, nor to the particular fabrics used therewith to form the covering, as a variety of other common solutions and flexible fabrics may be substituted therefor.

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with a perforated cylinder of a cockle-separator, a covering or jacket consisting of a series of flexible fabrics as spread, saturated, and covered with a solution of cement, which together, when dry, form a hard and rigidly-fixed covering, all substantially as and for the purpose specified.

2. The hereinbefore-described process of covering perforated cylinders for cockle-separators, consisting in first spreading upon paper, cloth, or other flexible fabrics a solution of cement and spreading the same one after another upon the cylinder, covering the whole thus spread with a solution provided with coloring material, and the further application, when dry, of shellac or its equivalent, all substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JULIUS KASTEN.

Witnesses:
JAS. B. ERWIN,
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