J. HILL.

Bottom for Cotton-Cans.

No. 204,971. Patented June 18, 1878.

Fig. 1.

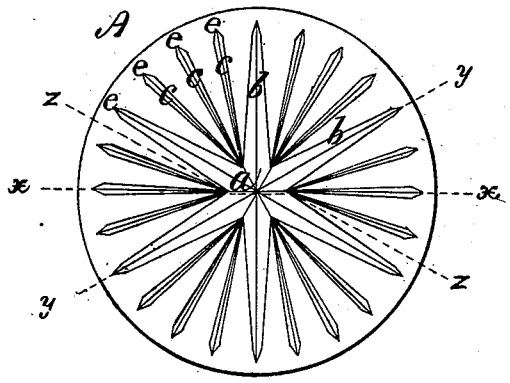

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses.

Socrates Scholfield

Alba R. Abbott

Inventor.

James Hill

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES HILL, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN BOTTOMS FOR COTTON-CANS.

Specification forming part of Letters Patent No. **204,971**, dated June 18, 1878; application filed May 17, 1878.

To all whom it may concern:

Be it known that I, JAMES HILL, of Providence, in the State of Rhode Island, have invented an Improvement in Cotton-Roving-Can Bottoms, of which the following is a specification:

The nature of my invention consists in an improved bottom for cotton-cans, provided with radial indentations or corrugations, whereby the surplus stock will be so taken up and drawn that the proper concavity can be formed at one operation free from wrinkles.

In forming up the ordinary concave bottom for cans at least two impressions of the die are required in order to form up the bottom free from wrinkles, the first impression striking up an annular outer portion of the disk, and the second striking up and finishing the central portion to correspond. By this means the outer edge of the flat disk from which the bottom is to be formed will be indented, so as to resist the formation of wrinkles at the edge of the bottom when the central portion is forced by the second impression to its proper position. I am, however, enabled to strike up a concave or a conical bottom at one operation by means of two sets of radial indentations—one made of gradually-increasing depth running toward the edge of the disk, the other of gradually-increasing depth running toward the center, the first serving to hold the edge of the disk firmly and taking out the wrinkles, at the same time that the center is being forced up to the die.

My invention also consists in a bottom for cotton-cans having its central portion struck deeper than the general surface of the bottom, with indentations extending radially in gradually-diminishing form, thus forming a star-like indentation in the central portion of the bottom.

Figure 1 is a plan view. Fig. 2 is a section taken in the line *x x*. Fig. 3 is a section taken in the line *y y*. Fig. 4 is a section taken in the line *z z*.

In the drawing, A is the can-bottom, having a star-like indentation, *a b*, at its center, and the lanceolar indentations *c c* between the radiations of the star, and by means of these indentations I am enabled to strike up an improved can-bottom at one operation, the indentations *c c* operating to hold the edge of the disk back while the center is being drawn by the die. The outer points of both classes of radiations are tapered down to a point, *e*, near the edge of the disk, in order to leave the edge smooth and free from wrinkles.

I claim as my invention—

1. A bottom for cans stamped with a deep central indentation, *a*, combined with the star-like radiations *b*, substantially as described.

2. A concave or conically-formed disk of sheet metal, provided with gradually-diminishing radial indentations, combined with oppositely-increasing ones, whereby the edge of the disk may be held back while the center is being drawn up, substantially as described.

JAMES HILL.

Witnesses:
SOCRATES SCHOLFIELD,
ALBA R. ABBOTT.