

R. De GRAY.  
BALE-TIE.

No. 192,978.

Patented July 10, 1877.

Fig. 1

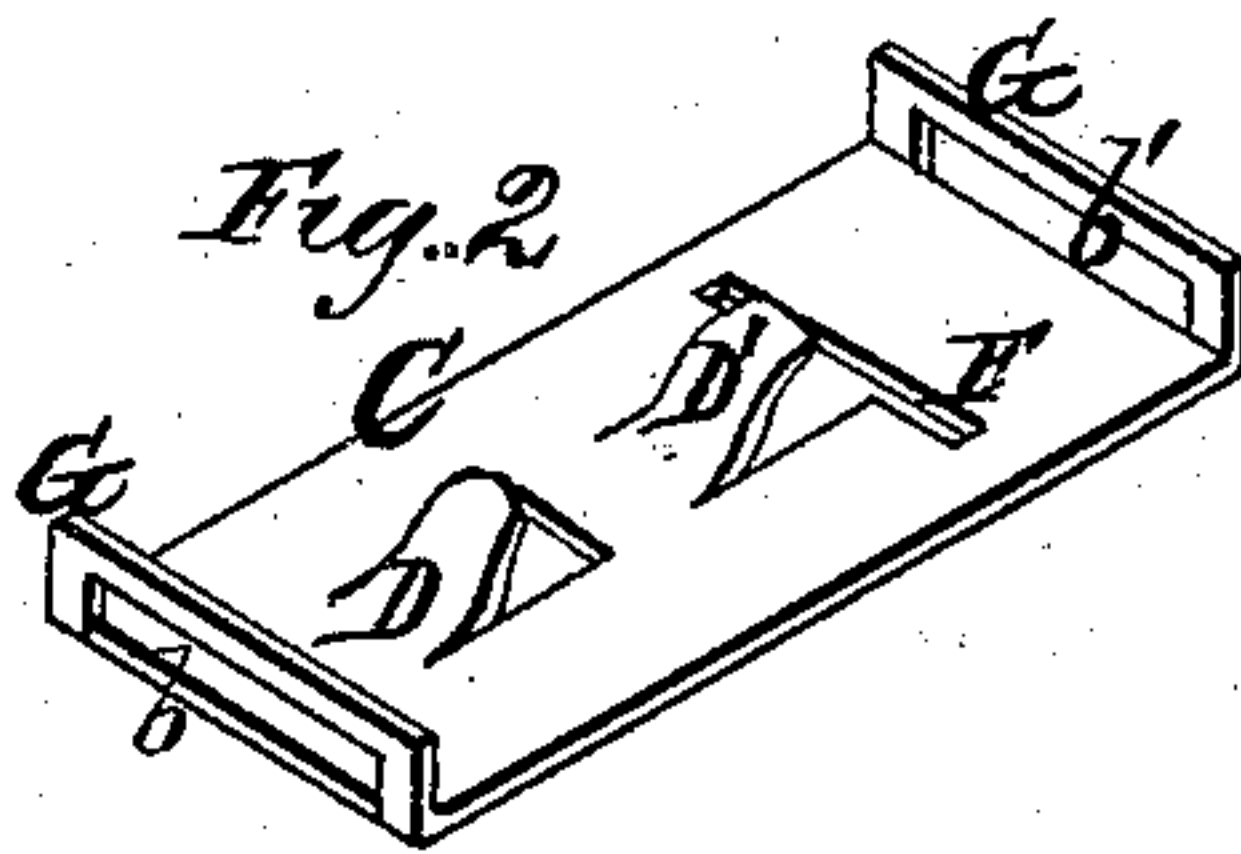
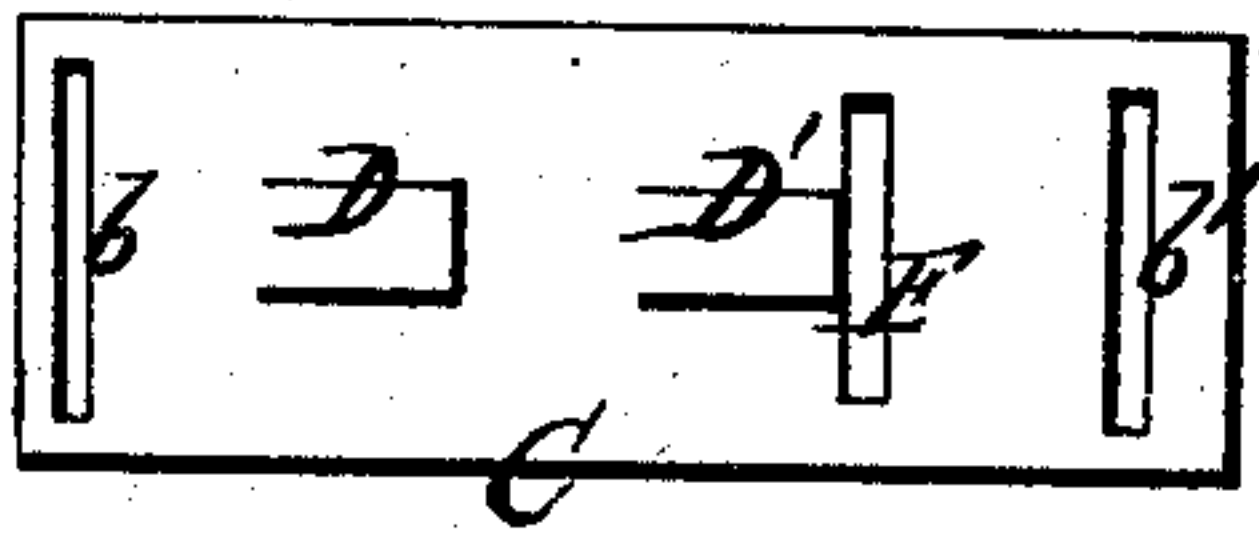


Fig. 3

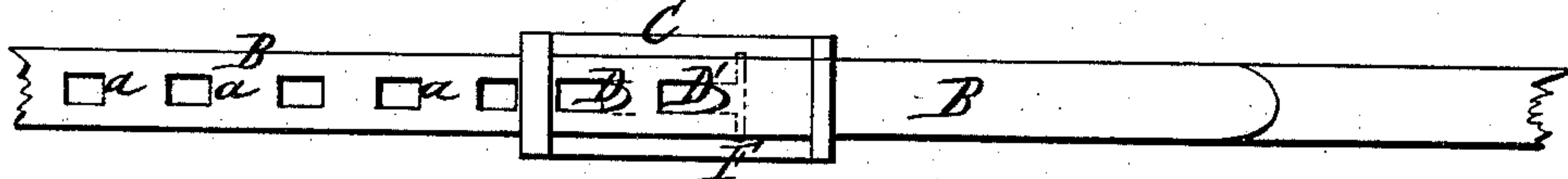


Fig. 4

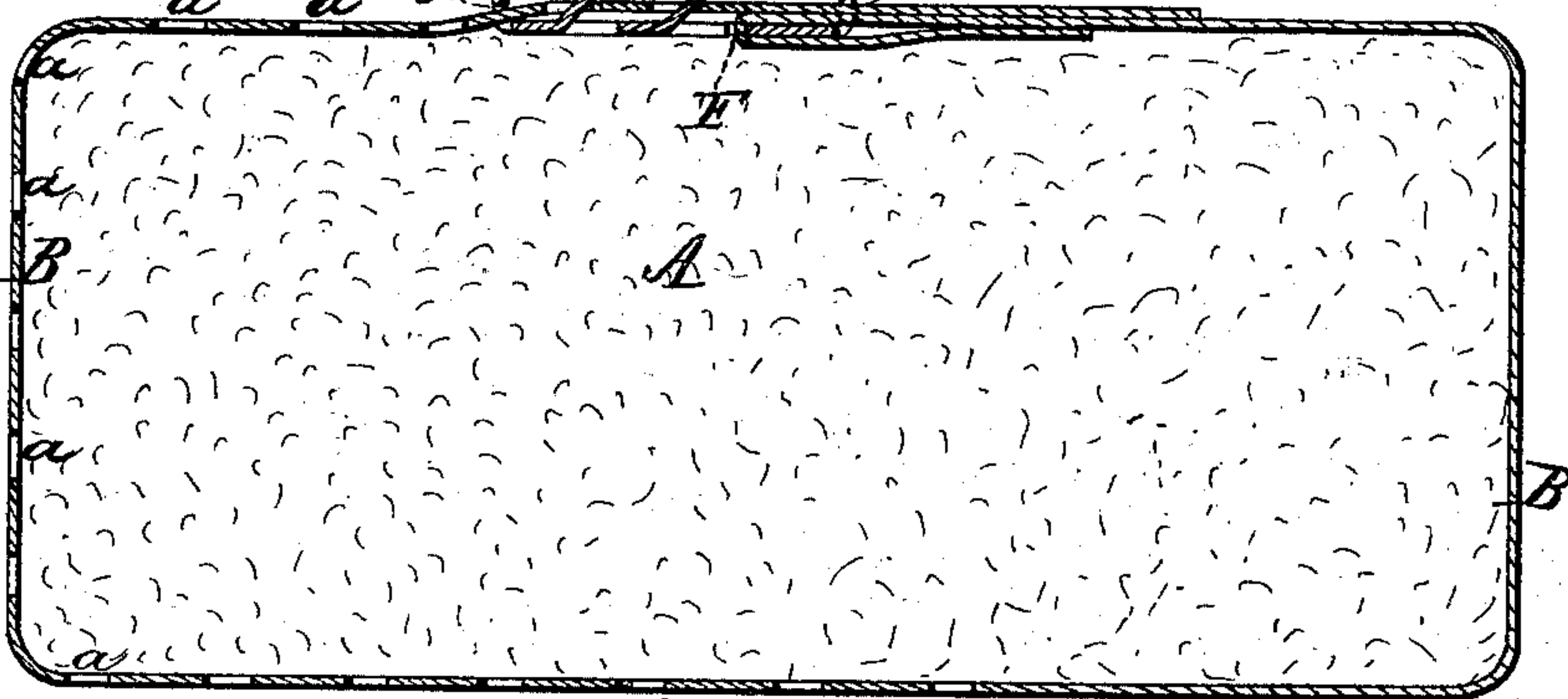
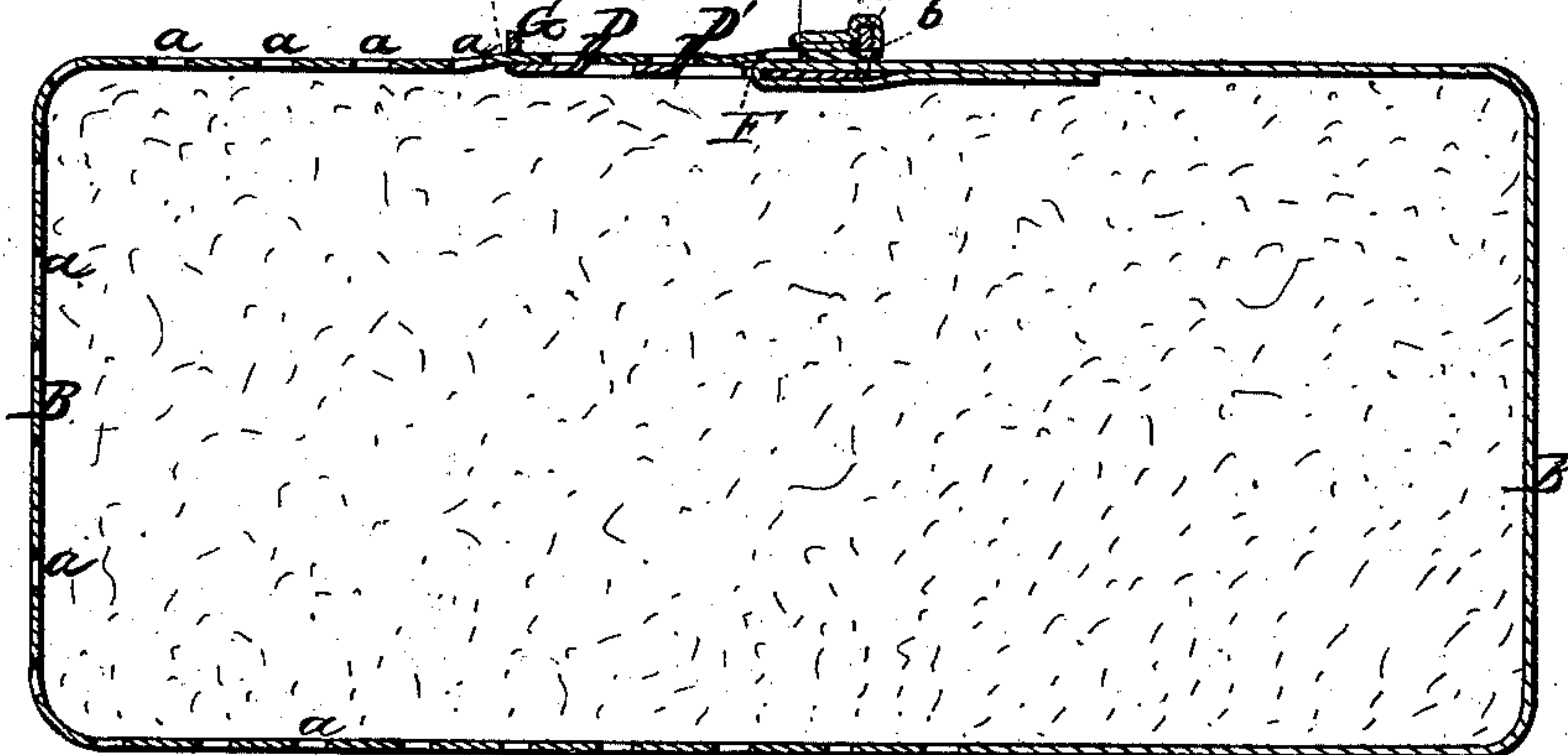


Fig. 5



Witnesses.  
James Martin Jr.  
J. P. Theodore Lang.

Inventor.  
Richard De Gray  
by  
Mason, Fenwick & Lawrence,  
attys.

# UNITED STATES PATENT OFFICE.

RICHARD DE GRAY, OF NEW ORLEANS, LOUISIANA.

## IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. 192,978, dated July 10, 1877; application filed April 30, 1877.

*To all whom it may concern:*

Be it known that I, RICHARD DE GRAY, of the city of New Orleans, parish of Orleans, and State of Louisiana, have invented a new and useful Improvement in Bale-Ties; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan view of the buckle of the tie as it appears after it has been stamped out of a piece of metal, and ready to be bent in proper shape. Fig. 2 is a perspective view of the same completed, or as it may be cast, and in a condition for use. Fig. 3 is a top view of the buckle and a portion of the band as fastened and secured around the bale. Fig. 4 is a vertical transverse section of the buckle or tie and its band, in a condition for being fastened and tied around a bale. Fig. 5 is a similar view except that the buckle or tie and its band are represented as having been firmly and completely fastened around the bale and the end of the band cut off and bent backward and downward close on the flange.

The nature of my invention consists in a tie or buckle, having fastening lips or teeth which are raised above the surface and provided at each end with a slotted flange, said flanges being at right angles to the plane of the buckle, and slightly lower than the plane or level of the fastening lips or teeth through which the band or strap is passed, so that as it is shoved or pulled forward the perforations or buckling-holes therein, will, as they pass over said fastening lips or hooks, catch underneath said lips or hooks, when the force of shoving or pulling is discontinued.

In the accompanying drawings, A is a cotton-bale; B, the baling-band; and C, the buckle. The baling-band is perforated with a series of oblong buckling-holes, *a*, on one of its ends. The buckle C has inclined teeth or lips, as at D D', formed on it by slitting and

pressing up the slitted portions of the metal, or by being thus cast, and in front of the tooth D' a slot, F, is cut transversely to the length of the buckle, which slot is intersected by the slot formed by the lip or tooth D'. The width of the slot F is equal to the width of the baling-band.

The buckle thus far described is similar to my buckle patented July 18, 1876, and numbered 179,841, and to the buckle thus described I have added the vertical flanges G, which have horizontal slots *b b'* formed in them, large enough for the passage of the band. The perforated adjustable end of the band passes through both slots in the flanges G, while the other or fixed end passes through but one of the slotted flanges and then down through the slot F of the buckle, and is turned up against the under surface of the buckle and band. The lips or teeth of the buckle extend up through the perforations of the band, and when hooked and fastened the end of the band through the slot *b'* is cut off and bent backward close down over said flange G *b'*.

With this improved buckle the band is firmly caught and held, and cannot casually lengthen and become loose on the cotton-bale during the handling of the same.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the perforated baling-band, of the buckle having teeth, as at D D', and slotted flanges, as at G G, through which the band is passed and afterward turned over flush with its top surface, substantially as described.

Witness my hand in the matter of my application for a patent for an improved bale-tie, this 25th day of April, 1877.

RICHARD DE GRAY.

Witnesses:

GEO. W. CHRISTY,  
T. A. BARTLETTE.