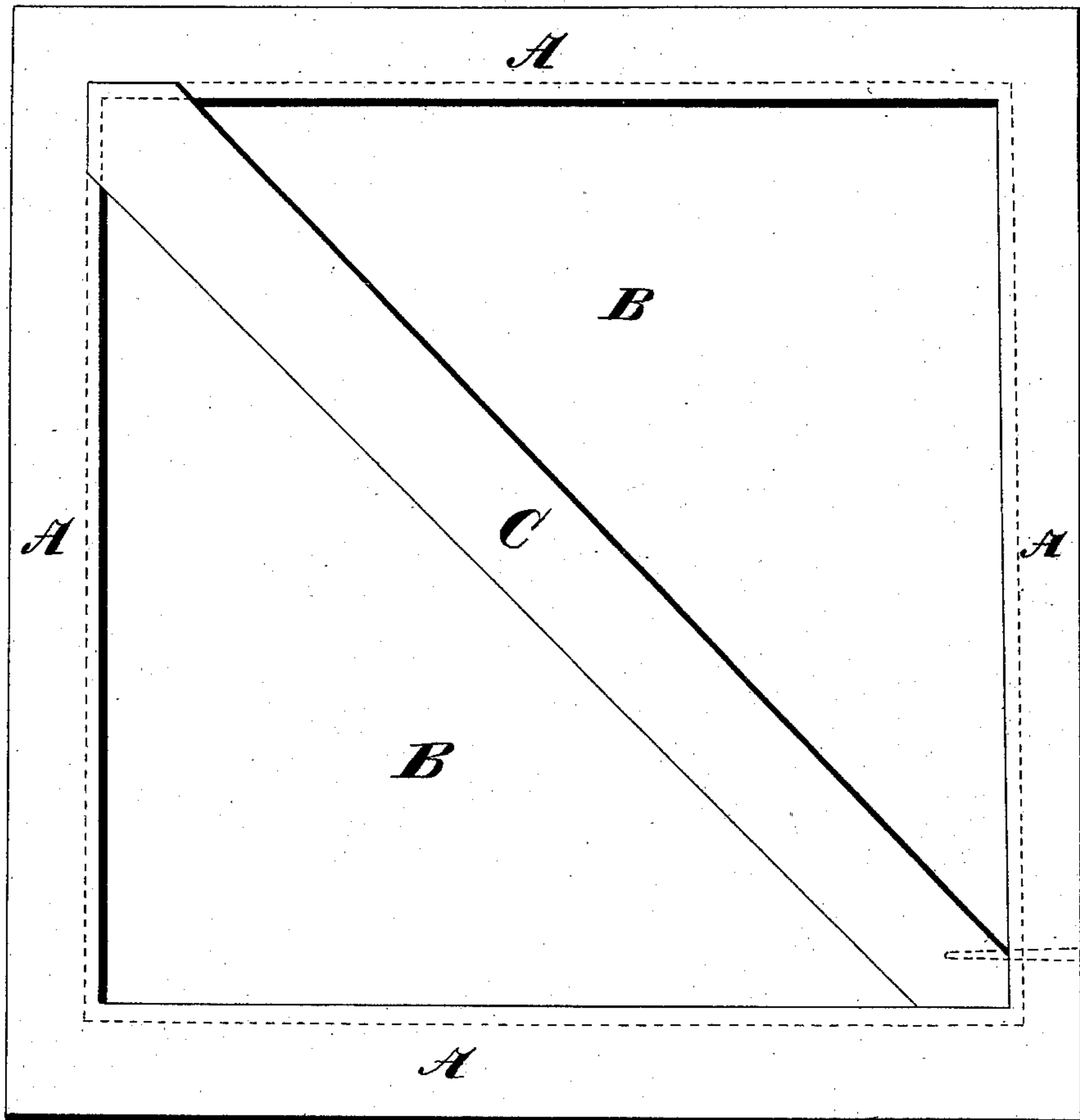


C. WILLIAMS.

Mode of Fitting Heads in Boxes.

No. 11,397.

Patented July 25, 1854.



Inventor.

Charles Williams.

UNITED STATES PATENT OFFICE.

CHARLES WILLIAMS, OF FALLSBURG, VIRGINIA.

MODE OF FITTING HEADS IN BOXES.

Specification of Letters Patent No. 11,397, dated July 25, 1854.

To all whom it may concern:

Be it known that I, CHARLES WILLIAMS, of Fallsburg, in the county of Buckingham, in the State of Virginia, have invented a new and Improved Mode of Making and Confining the Ends or Heads of Boxes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists in putting heads in boxes by cutting grooves, or croze, across the grain of the boards, near each end to receive the ends or heads, similar to the croze of a barrel, one end, to be closely confined when the box is made, and the other end put in after the box is filled.

To enable others to make and use my invention, I will describe how I make a box to hold about 100 pounds of flour; viz, take 4 boards, each one inch thick and about 24 inches long; 2 of them must be 12 and 2 must be 13 inches wide, to make the box 12 inches square on the inside, when they are nailed together, about one inch from each end of these 4 pieces, I cut a groove, three-fourths of an inch wide, and one-fourth deep; into this groove I put a board $\frac{3}{4}$ inch thick $12\frac{1}{2}$ inches square and nail the 4 pieces around, and to it; these 4 pieces can be tongued and grooved together at their joinings, if the box is wanted to be water tight and it can be hooped with wood, wire, or other metal, if wanted very strong. To make the movable head, (or end), take 2 boards each $\frac{3}{4}$ inch thick 8 inches wide, 16 inches long, and another piece of same thickness, $17\frac{1}{2}$ inches long, put the narrow piece between the 2 wide ones, and then cut from the outside center of each wide piece (an angle of 45 degrees) to the center of each end of the middle piece, these 3 pieces are then $12\frac{1}{2}$ inches square when united; put the angular pieces (marked B in the drawing) into the grooves (marked A in the drawing) at the opposite corners, then put one end of the piece (C

in the drawing) between the pieces B. Press the other end down to the bottom of the groove ($\frac{1}{4}$ inch being first cut out from the end of the box to the groove or croze; the piece C, keeps the pieces B tight in their place and might be made of a board 2 inches wide and one inch thick, a $\frac{1}{4}$ inch rabbit being cut on both sides, $\frac{3}{4}$ inch deep from the bottom; there would then be a lap of $\frac{1}{4}$ inch over both joints of the head; this is only useful when extra tight joints are required.

The superiority of this kind of boxes, over other kinds of boxes and kegs, consists in the ease with which the head is removed, to examine or sample the contents and then replaced; as no nail is drawn, or hoop cut, or moved, it can be emptied and refilled 1,000 times without injury; the last end of the piece may be confined by a pin or screw through the side, into the end of C, with wax over it, to prevent or prove the opening of the box. These boxes can be made of any kind of wood, of any thickness or form; they are particularly useful for packing flour, meal, butter, seeds, sugar, salt, tobacco, nails, soap, candles, soda, starch, segars, and nearly every thing usually put in kegs, as by suitable machinery, one man can make four times as many boxes, as he can barrels or kegs in the same time.

I am aware that grooves have been cut with the grain of the wood, for making boxes, but I do not know or believe, that they have been cut across the grain for that purpose, if they have been I do not claim an exclusive right to that innovation.

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

The angular form of the 3 pieces of heading, which allows their being put in securely and often removed, without drawing a nail, or moving a hoop.

CHARLES WILLIAMS.

Witnesses:

THEODORE ARROWSMITH,
U. D. BARBER.