(No Model.) 2 Sheets—Sheet 1.

J. C. HORN.

FRAMING FOR ARTICLES OF FURNITURE.

No. 591,275. Patented Oct. 5, 1897.

Fig. 1.

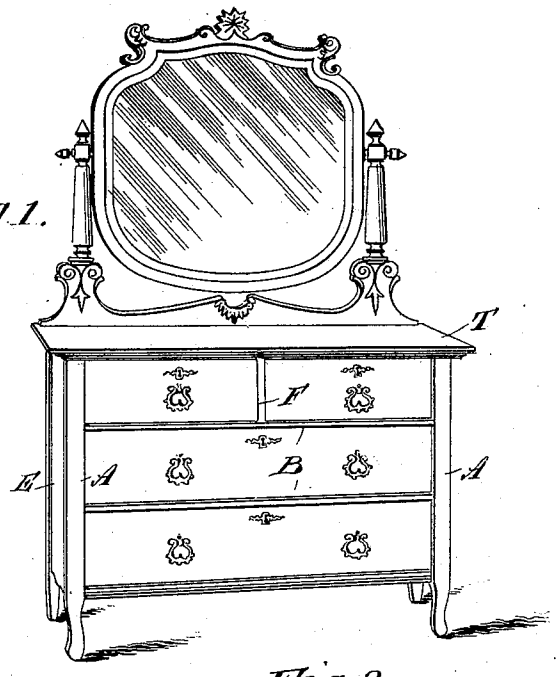
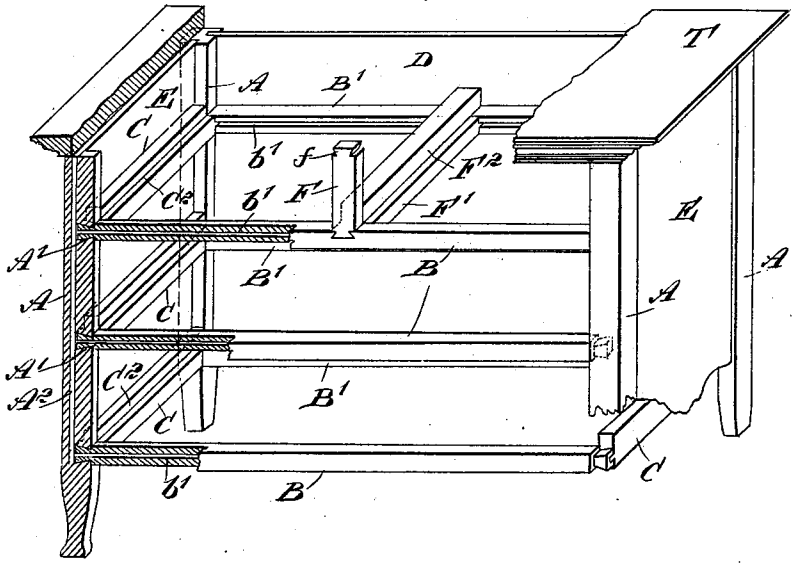


Fig. 2.



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2 Sheets—Sheet 2.

FRAMING FOR ARTICLES OF FURNITURE.

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Fig. 3.

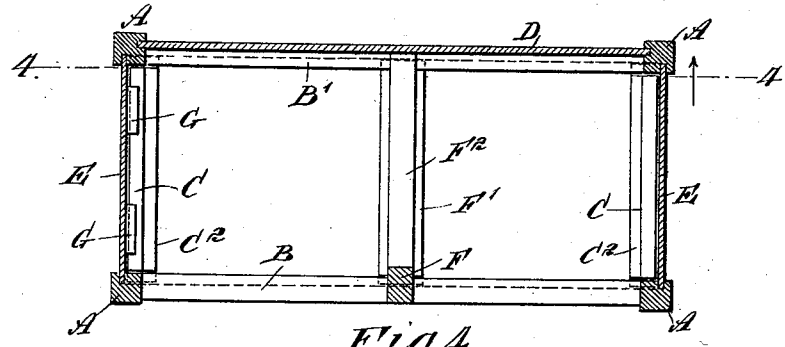


Fig. 4.

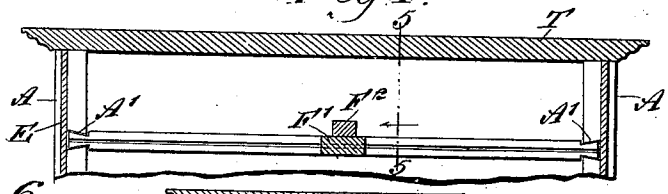
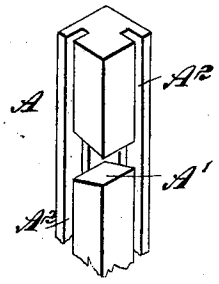


Fig. 6.



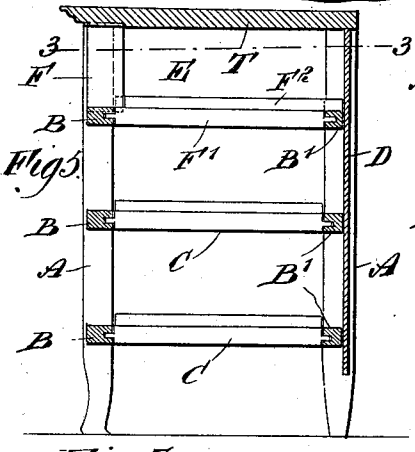


Fig. 5.

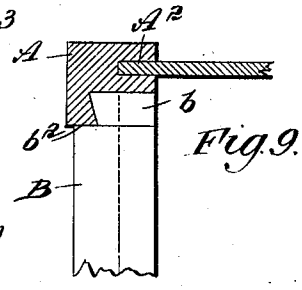


Fig. 9.

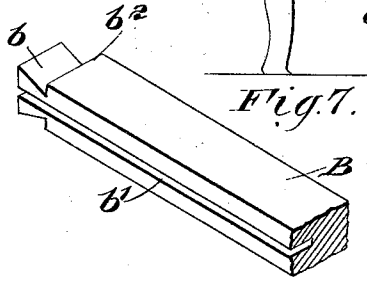


Fig. 7.

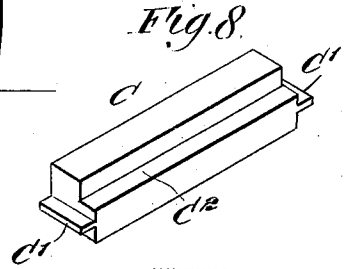


Fig. 8.

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UNITED STATES PATENT OFFICE.

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FRAMING FOR ARTICLES OF FURNITURE.

SPECIFICATION forming part of Letters Patent No. 591,275, dated October 5, 1897.

Application filed December 26, 1896. Serial No. 617,044. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. HORN, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Framing for Articles of Furniture, of which the following is a full, clear, and exact description.

My invention consists of a new form of construction for such articles of furniture as are made of a general rectangular box shape, and particularly such articles as bureaus, chiffonniers, desks, and other pieces containing drawers.

The particular features of the construction and details of my improvement will be pointed out in the specification following, reference being had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a bureau made in accordance with my invention. Fig. 2 is a perspective view of a bureau with the drawers removed and portions of the top broken away and with some of the parts in section. Fig. 3 is a sectional plan of a bureau, taken on the line 3 3 of Fig. 5. Fig. 4 is a fragmentary elevation, in partial section, on the line 4 4 of Fig. 3. Fig. 5 is a sectional end elevation taken on the line 5 5 of Fig. 4. Fig. 6 is a perspective view of one end of a rear corner-post, showing the shape and location of the dovetailed and panel slots. Fig. 7 is a perspective view showing the inner side of one end of one of the longitudinal bars. Fig. 8 is a perspective view of one of the locking-bars. Fig. 9 is a sectional plan showing one of the corners of the frame.

The object of my invention is to cheapen the cost of construction of the class of furniture hereinbefore specified, and to construct the frame of such furniture in such a manner that it may quickly be put together without using glued joints for holding the parts, and so that it may be shipped in knockdown form before erecting, or knocked down for shipment at any future time. The particular means by which these results are accomplished will be pointed out hereinafter.

In preparing the material before assembling the four corner-posts A are provided with longitudinal slots A^2, adapted to receive the panels forming the rear and end surfaces of the bureau or other article being made. These slots extend from the upper end of the post to a point as low as that occupied by the panels of the outer surfaces of the article of furniture. The posts are also provided with dovetailed cross-slots A′, which extend in a horizontal direction—that is, a dovetailed tenon in being inserted therein is moved in a horizontal direction. These slots extend from the inner surface of the post to a point short of the outer surface, or, in practice, until the slot meets the vertical slot A^2. The two rear posts are provided with two longitudinal slots A^2, one upon each inner surface. The front posts, however, are provided with only one of these slots, which is upon the rear side of the post. The reason for this is that the front of the bureau or other article is generally provided with drawers and consequently would have no front panel to be inserted in this slot. In case the article was to be provided with a front panel the front post would also be provided with two slots A^2.

The rails B and B′, respectively upon the forward and rear of the bureau, are made alike, with one exception, which will be pointed out later. These bars, as shown in Figs. 2 and 7, are provided with a longitudinal slot b', having parallel sides and located upon its inner face. The ends of the bars are also shaped so as to make a dovetailed tenon b, which extends parallel with the depth of the slot b'—that is, horizontally. This tenon is made so that it will be a close fit in the dovetailed groove A′. For the rear bars B′ this tenon extends the entire width of the bar. For the front bars B this tenon does not extend the entire width of the bar. The front portion of this tenon in the bars B is cut off so as to form a shoulder, as shown at b^2 in Fig. 9. The object of this is that the projecting front portion of the bar B may overlap the post at the end of the dovetailed slot A′ and thus hide the same. This is clearly shown in Fig. 9. As the rear bar B′ is covered by the rear panel D the arrangement just described is not needed or desired for the rear bars. In case the rear bars were exposed they would, however, be constructed in the same way as are the front bars.

The locking-bars C (shown in detail in Fig.

8) are formed with tenons C′ upon each end, and these tenons are adapted to fit snugly in the groove *b′* of the bars B and B′. The locking-bars C are also provided with a rectangular groove C^2, formed in their upper inner edges, and the surfaces of these grooves are adapted to form bottom and side supports for the drawers of the bureau. In assembling such an article of furniture the end panels E are inserted in the slots A^2 of the corner-posts A. The panels E are secured in place by gluing, nailing, or any suitable means which will prevent their pulling out of the slots in the corner-posts. The two end pieces thus formed are then connected by inserting the dovetailed tenons on the bars B and B′ into the dovetailed slots A′ of the posts. When any pair of these bars B and B′ have been inserted, the locking-bars C are then placed in position with their tenons C′ in the slot *b′* of the bars. The locking-bars are then slid toward the end of the frame of the furniture until they occupy the position shown in Figs. 2 and 3. The bars B and B′ will have sufficient spring at the center of their length to permit of the insertion of the bars C. The bars C are made of such a length that they will hold the bars B and B′ closely pressed into the slots in the corner-posts. As the rear panel D has not yet been inserted in its slot in the corner-post the rear bar B′ may give a little to the rear, and thus facilitate the insertion of the bar C. The groove C^2 in the bar C is so placed that its lower surface comes flush with the upper surface of the bar B, so that the drawer may rest upon it. In this way the separate frames formed by the bars B, B′, and C are inserted in the corner-post.

When it is desired to put two small drawers in one tier, this may be accomplished by forming a dovetailed slot in one of the bars B and in the top T or the bar B, which is above it. A dividing-strip F is formed with dovetailed tenons *f* upon each end and inserted in the slots formed therefor in the uppermost bar B and the top T. Two strips of wood, F′ and F^2, or one strip formed in T shape, the lower one or member of which, F′, is formed with tenons similar to the tenons C′ upon the bar C, is then inserted between the front and rear bars B and B′. The upper portion F^2 should be made of the same width as the strip F. These strips F′ F^2 form bearings for the bottom and side edges of the drawer, and they may be glued or otherwise secured, so as to retain their position. After all the bars have been inserted in their proper places the rear panel D is inserted by sliding the same into the slots A^2 upon the post A at each end. This panel D is inserted from the top and forced down to its proper position, the bars B′ being forced to the front, if they have been forced too far to the rear. This panel D may, if desired, be glued in the slots at the same time or be secured therein by tacks, nails, or screws.

In making such articles of furniture containing drawers it is necessary to have some means of adjustment for the end pieces, which form the guides for the drawers. The bars C, which perform this function in the construction shown, are for this purpose made a little narrower than the spaces which they are free to occupy at the ends of the bureau. When the drawers have been placed in position, a chisel may be inserted between the outer surface of the bar C and the end panel E to force the same up against the drawer until it is a snug fit. When the same has been properly adjusted, small blocks G may be placed in position and glued fast to the panels E. These blocks will then serve to hold the bars C in their proper adjustment. This arrangement forms a very quick and efficient means for adjusting the drawer-slides to their proper position and makes it unnecessary that the drawer should be constructed of exact size in order to make a snug fit. The slides in which the drawers work may be adjusted to fit the drawer. This construction for such articles of furniture is one in which all the work of preparing the parts may be done entirely by machinery. It is for this reason a cheap form of construction. It is one also which makes a very stiff construction and one in which glued joints are not depended upon for holding the parts together, and consequently the furniture will not fall to pieces when placed in damp locations. The furniture may also be shipped in knockdown form, and in consequence the bulk of the furniture is very much reduced, and especially for water-shipment the freights will be much less. The furniture may be entirely finished in all respects at the factory, and then knocked down and shipped. Upon arriving at its destination it may be very quickly set up, without the finish having been marred in the process. In the same way the furniture may be knocked down at any time it is desired to ship it any distance. This form of construction has also proved to possess great strength, more than that in which the ordinary glued joints have been used and relied upon for holding the parts together. The work of putting the furniture together is also of such a character that ordinary unskilled workmen may be used for this purpose. I have also found that furniture constructed in this manner is of less weight than furniture of the usual construction, although the strength is greater.

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

1. A frame for articles of furniture, consisting of corner-posts having dovetail slots extending in a horizontal direction partially across one face and opening toward the center of the frame, bars having longitudinal parallel-sided slots upon their inner edges and dovetail tenons upon their ends, the latter being adapted to fit the dovetail slots in the corner-posts, locking-bars having tenons

upon their ends adapted to fit the longitudinal slots in the bars, and means for binding together pairs of posts in the direction of said locking-bars, substantially as described.

2. A frame for articles of furniture, consisting of corner-posts having dovetail slots extending in a horizontal direction partially across one face and opening toward the center of the frame, bars having longitudinal parallel-sided slots upon their inner edges and dovetail tenons upon their ends, the latter being adapted to fit the dovetail slots in the corner-posts, locking-bars having tenons upon their ends adapted to fit the longitudinal slots in the bars, and having their upper inner edges grooved to form bottom and end bearing-surfaces for a drawer, and means for binding together pairs of posts in the direction of said locking-bars, substantially as described.

3. A frame for articles of furniture, consisting of corner-posts having dovetail slots extending in a horizontal direction partially across one face and opening toward the center of the frame, and also having longitudinal slots in the rear posts outside of the dovetail slots and which face the adjacent posts upon each side, and the front posts having similar slots facing to the rear, bars having longitudinal parallel-sided slots upon their inner edge and dovetail tenons upon their ends, the latter being adapted to fit the dovetail slots in the corner-posts, locking-bars having tenons upon their ends adapted to fit said longitudinal slots in the bars, and panels adapted to enter the vertical slots in the corner-posts to form the sides of the furniture, substantially as described.

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Witnesses:
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H. L. REYNOLDS.