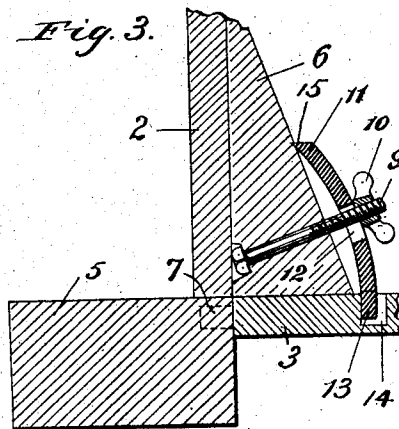
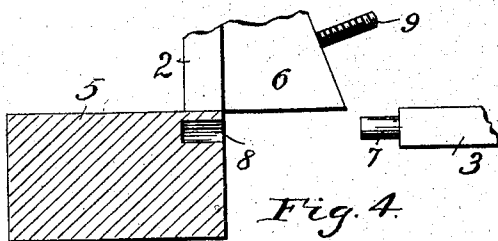
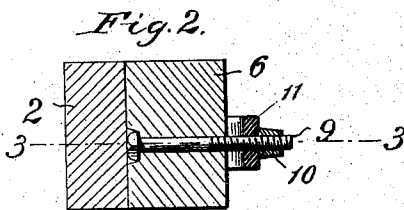
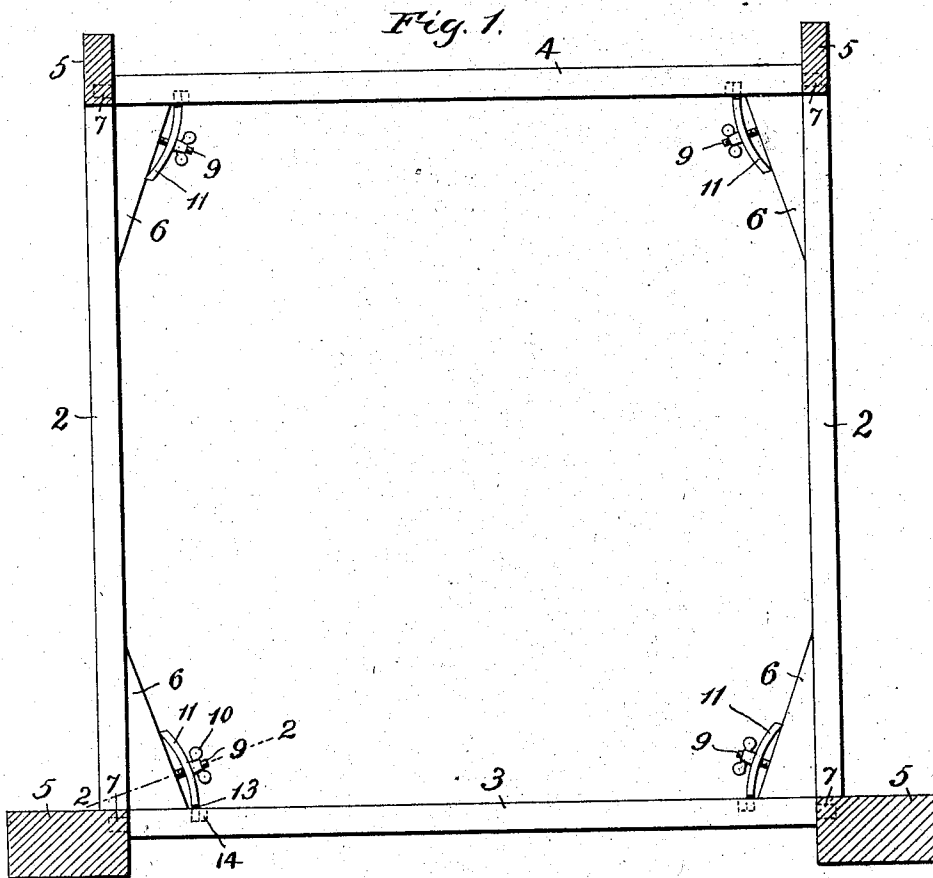


No. 796,333.

PATENTED AUG. 1, 1905.

C. B. HOWELL & C. E. BROWN.
CONNECTING DEVICE FOR KNOCKDOWN FURNITURE.
APPLICATION FILED MAR. 29, 1905.



Witnesses:

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C. B. Barker

Inventors:

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Att'y

UNITED STATES PATENT OFFICE.

CLAUDE B. HOWELL AND CHARLES E. BROWN, OF MEDINA, NEW YORK,
ASSIGNORS TO S. A. COOK AND COMPANY, OF MEDINA, NEW YORK.

CONNECTING DEVICE FOR KNOCKDOWN FURNITURE.

No. 796,333.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed March 29, 1905. Serial No. 252,701.

To all whom it may concern:

Be it known that we, CLAUDE B. HOWELL and CHARLES E. BROWN, citizens of the United States, residing at Medina, in the county of Orleans and State of New York, have invented new and useful Improvements in and Relating to Connecting Devices for Knockdown Furniture, of which the following is a specification.

Our invention relates to furniture, having for its object to unite parts of the framework thereof in such way as to permit of the separation and union of the same easily and without the aid of special tools, the invention permitting the parts of the article to be so separated that it may be transported in a knock-down condition and easily set up.

In the accompanying drawings we have illustrated the invention applied to the frame of a chair.

Figure 1 is a horizontal sectional view, viewed from above, of the seat-frame of a chair. Fig. 2 is a vertical section taken on the line 2 2 of Fig. 1. Fig. 3 is a horizontal section on the line 3 3 of Fig. 2. Fig. 4 is a view of the parts of the frame separated.

Referring to the drawings, 2 2 indicate the side rails of the frame, 3 the front rail, 4 the rear rail, and 5 the legs; these constituting the rectangular seat-frame of a chair. In order to give rigidity to the frame, corner-blocks 6, of triangular shape, are employed at the inner meeting angles of the rails. One pair of the rails is permanently secured to the legs in the usual way, as by means of dowel-pins and glue. The side rails 2 are thus preferably secured, and to them in turn are preferably permanently secured the corner-blocks 6. On the other hand, the other pair of rails—the front and rear rails—is not permanently connected either with the legs of the frame or with the side rails, but easily separable therefrom. This pair of rails is provided with dowel-pins 7, adapted to enter apertures 8, provided therefor in the legs 5, thus providing means for securely uniting the frame parts of the chair, though other means than dowel-pins could be employed, if desired. In order to securely unite the several rails of the chair to form a rigid frame, we prefer to employ the following devices: 9 represents screw-threaded pins or rods connected with one pair of the rails. We have found it most convenient to seat these rods or pins in the corner-blocks 6, they being thus connected to the

side rails. Upon the screw-threaded pins or rods are mounted nuts 10, which bear against the clamping or connecting pieces 11. Each of these connecting-pieces is in the form of a short curved bar of metal, formed with an elongated aperture or slot 12, through which passes one of the pins 9. One end of the piece 11 is arranged to engage with one of the separable rails of the frame, being for this purpose preferably reduced in size, as indicated at 13, and adapted to enter a recess 14 in such rail. The other end of the connecting-piece bears upon the corner-block 6, its edge being preferably sharpened, as indicated at 15, so as to slightly cut into the block, and thus form for itself a seat to prevent slipping of the connecting-piece when the parts are tightly clamped together.

When the parts of the frame are to be united, the dowel-pins 7, carried by the separable rails of the frame, are inserted into the holes 8, the frame being thus united, though in an insecure manner. One of the connecting-pieces 11 is then placed over a screw-threaded pin 9 and its reduced end 13 inserted into the aperture 14 of the adjacent side rail. The nut 10 is then applied to the screw and tightened upon the connecting-piece with the result that the bar acts as a lever, its abutment or fulcrum being the end 15, to force the removable or separable side rail into place and to rigidly unite it with its adjacent rail. This procedure is repeated at each corner with the result that the separable parts of the frame are rigidly united, this being accomplished quickly and without the use of special tools or the necessary assistance of a skilled workman.

We prefer to curve the connecting-piece 11 in order that it may the more effectively operate, as then it bears only at its ends against the frame parts of the chair, one bearing being connected with a side rail and the other bearing with the removable front or rear rail. By slotting the bar 11 we permit the separation of the bar from the removable rail, its reduced end being withdrawn from the aperture 14 by longitudinal movement of the bar without necessitating the removal of the nut from the screw-threaded pin 9.

A frame thus constructed is practically as rigid as one permanently united in the usual way, with the advantage that the parts may be separated and again united as often as may be necessary.

Having thus described our invention, what we claim is—

1. The combination with separate rail members of a piece of furniture, the herein-described devices for uniting them comprising a screw-threaded pin and nut carried by one of the rail members and a connecting-piece consisting of a rigid curved bar slotted to pass over the pin and to move longitudinally thereon and having one of its ends arranged to enter an aperture in another of the rail members and its other end formed into a sharp edge arranged to form a seat for itself upon the first-named rail member when the nut is tightened upon the screw to draw the connecting-bar into place, substantially as set forth.

2. The combination of a rectangular frame

consisting of separable rails, triangular-shaped blocks connected with certain of the rails and arranged to closely fit in the corners of the frame when the rails are assembled, screw-threaded pins seated in the triangular blocks, nuts upon the pins, and the connecting-pieces 11 slotted to pass over the screw-threaded pins and each having one end adapted to engage with one of the rails and its other end sharpened to engage with and seat itself in one of the corner-blocks, substantially as set forth.

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