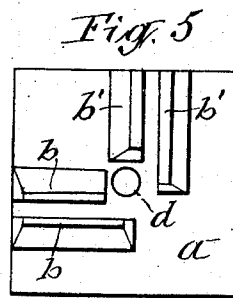
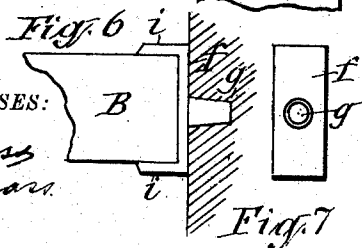
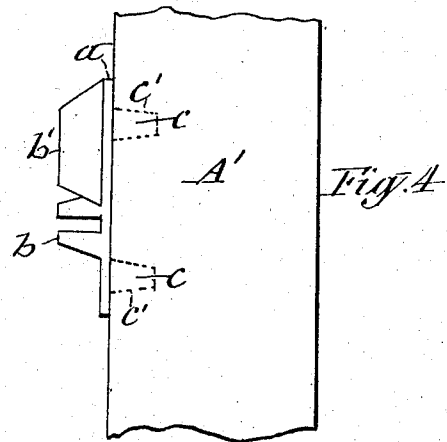
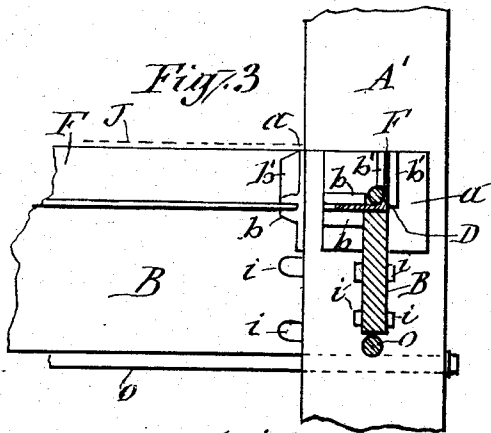
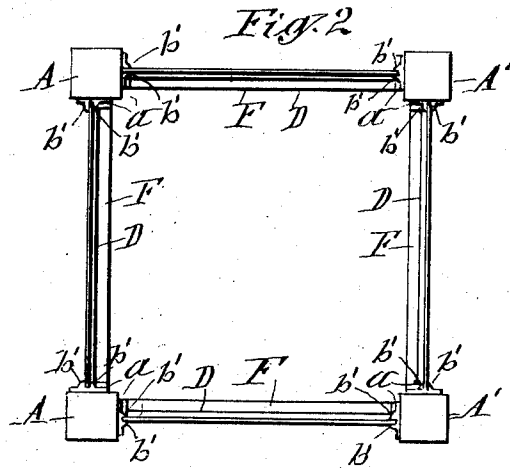
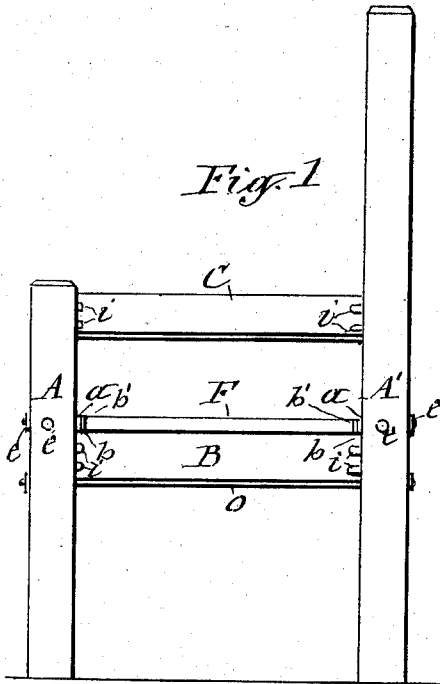


No. 864,466.

PATENTED AUG. 27, 1907.

B. F. HULL.  
FURNITURE AND ANALOGOUS STRUCTURE.  
APPLICATION FILED OCT. 8, 1906.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

BENJAMIN F. HULL, OF SYRACUSE, NEW YORK.

## FURNITURE AND ANALOGOUS STRUCTURE.

No. 864,466.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed October 8, 1906. Serial No. 337,950.

### *To all whom it may concern:*

Be it known that I, BENJAMIN F. HULL, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga, in the State of New York, have  
5 invented new and useful Improvements in Furniture and Analogous Structures, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The invention relates to the class of structures in  
10 which transverse members thereof are attached endwise to the sides of adjacent members.

The invention is especially very useful in the construction of chairs, settees and other or analogous articles of furniture, but it obviously is not restricted to  
15 that species of structures.

The object of the invention is to provide simple, inexpensive, convenient and efficient means for rigidly securing the members of the structure to each other in an expeditious, neat and substantial manner without requiring skilful and expensive labor of framing  
20 the joints of the structure. And to that end the invention consists in the novel construction and combination of parts hereinafter described and claimed.

In the accompanying drawings Figure 1 is a side  
25 view of a chair embodying my invention; Fig. 2 is a plan view of the chair minus its seat and arms; Fig. 3 is an enlarged fragmentary vertical section of parts of the invention which serve to support the seat frame; Fig. 4 is an enlarged side view of one of the  
30 plates designed for supporting the seat frame; Fig. 5 is a face view of said plate; Fig. 6 is a side view of one of the plates which are employed for attaching the transverse members of the structure; and Fig. 7 is a detached rear view of said plate.

35 Similar letters of reference indicate corresponding parts.

Referring to the said drawings, —A— and —A<sup>1</sup>— represent respectively the rear and front legs of the chair.

40 —B— denotes the rails or transverse members which are below the seat and sustain the legs of the chair at their required distances from each other.

—C— denotes the upper transverse members which form the arms of the chair.

45 My invention consists essentially of the metal plates —a— and —f— which are interposed between the ends of the transverse members and sides of the upright members in combination with tie-rods —D—D— which extend lengthwise of the transverse members  
50 and are fastened to the upright members.

The plates —a— are each formed with studs or tenons —c—c— which project from the back of the plate and are inserted in sockets —c<sup>1</sup>— cut or bored in the side of the upright member or leg of the chair  
55 as shown in Fig. 4 of the drawings. The face of the said plate has projecting from it two horizontal ribs

—b—b— and two vertical ribs —b<sup>1</sup>—b<sup>1</sup>— and is perforated at —d— for the purpose hereinafter explained. The engagement of the tenons —c—c— with the sockets —c<sup>1</sup>— serves to prevent the plate —a— from shifting  
60 on the upright member.

—F— represents the angle iron or L-shaped bars which are disposed transversely between the legs of the chair and are supported at their ends by the horizontal web of the bar inserted between the horizontal  
65 ribs —b—b— of the plates —a— and by the vertical web of the bar inserted between the vertical ribs —b<sup>1</sup>—b<sup>1</sup>— of said plates.

The tie-rod —D— passes at its ends through the perforations —d— of the plates and through the legs  
70 and is fastened to the latter, preferably by means of nuts —e—e— on the ends of the rod. Said rod serves to tie the legs to each other and force the bar —F— to the plates —a— and retain said bar in engagement with the ribs —b—b<sup>1</sup>— of the plates. The seat-frame —J— is mounted on the horizontal webs of the  
75 four bars —F— as indicated by dotted lines in Fig. 3 and is thus securely supported.

The transverse bracing members —B— and arms —C— of the chair are each secured to the legs or upright members of the chair by means of plates —f—f—  
80 which are placed on the sides of the upright members and are formed with a stud or tenon —g— projecting from the back of the plate and inserted into a socket formed in the upright member as shown in Fig. 6.

The face of each plate —f— has projecting from it lugs —i—i— which receive between them the end of the transverse member of the chair. A tie-rod —o—  
85 extending lengthwise of the said transverse member and through the upright members and provided with nuts on its ends serves to tie the upright members to each other and force the transverse member to bear with its ends on the plates —f—f—.

It will be observed that my described invention dispenses with the cost of skilful labor of framing the  
90 joints of the structure, and imparts superior rigidity and durability thereto by simple and inexpensive devices which may be put compactly in convenient packages suitable for the trade.

What I claim as my invention is:—

100

1. The combination with the chair-legs, of plates secured to the said legs and formed with horizontal and vertical ribs projecting from the faces of the plates, transverse bars formed with horizontal and vertical webs and sustained between the aforesaid ribs of the plates, the  
105 seat-frame mounted on the horizontal webs of the transverse bars, and transverse tie-rods connected to the legs as set forth.

2. In a structure, the combination of two upright members provided with sockets in their sides, plates seated on said sides and formed with tenons inserted in said sockets and with vertical and horizontal ribs projecting from the faces of the plates, an L-shaped bar seated at its ends on the said ribs, a transverse member mounted on the L-  
110

shaped bar, and a tie-rod extending lengthwise of the transverse member and passing through the upright member and fastened thereto.

- 5 3. In the construction of a chair or analogous furniture, the combination of the upright members provided with sockets in their sides and with perforations between said sockets, plates seated on said sides and formed with tenons inserted in said sockets and perforated in range with the perforations of the aforesaid members, and provided with  
10 horizontal and vertical ribs projecting from the faces of

the plates, an L-shaped bar seated at its ends on the said ribs, the seat-frame mounted on said bar, and a tie-rod extending lengthwise of the said bar and through the perforations of the plates and upright members and provided with nuts on their ends as set forth and shown.

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