

P. G. ABRAMS.  
JOINT FOR FURNITURE.  
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978,530.

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Fig. 1.

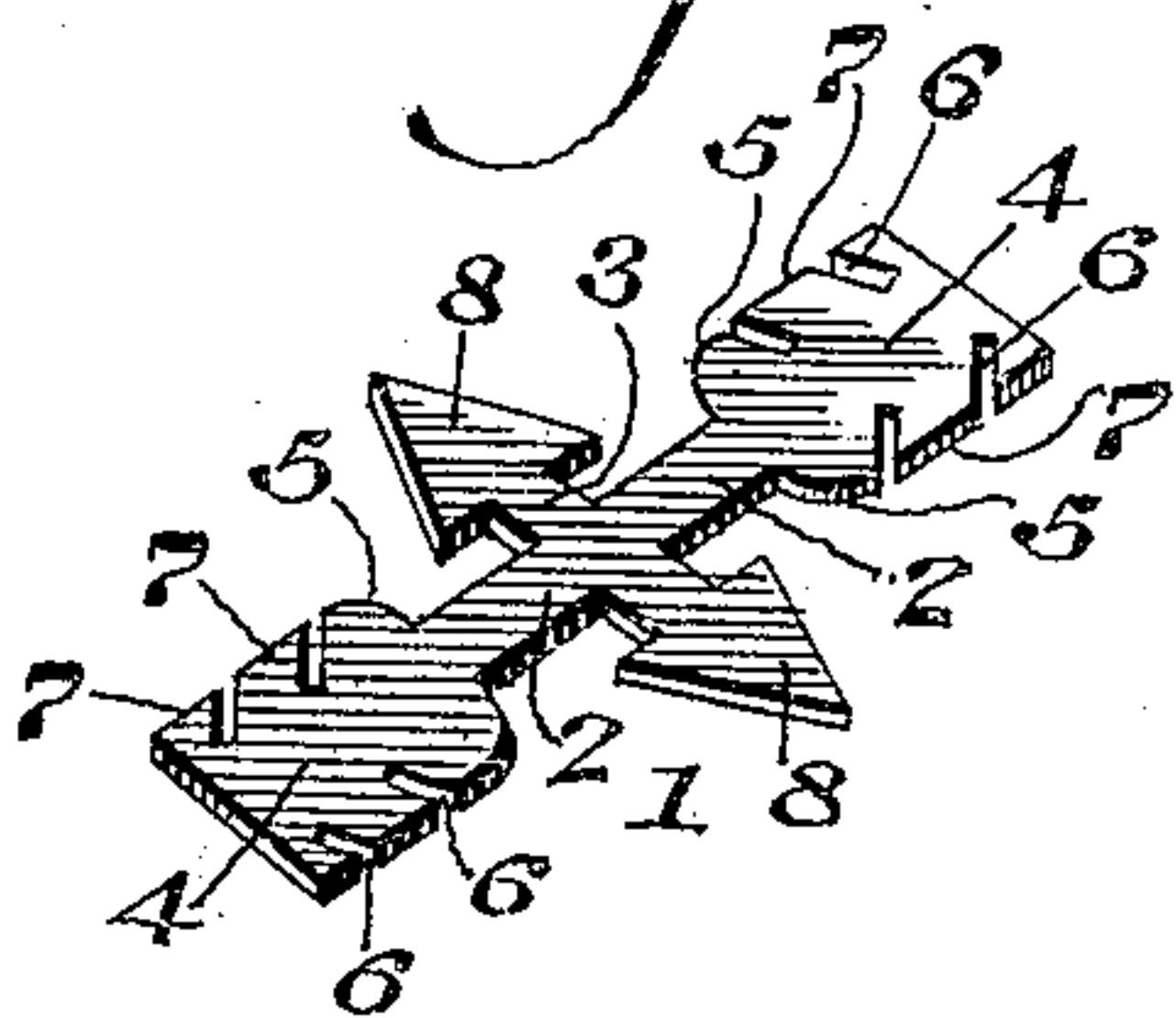


Fig. 2.

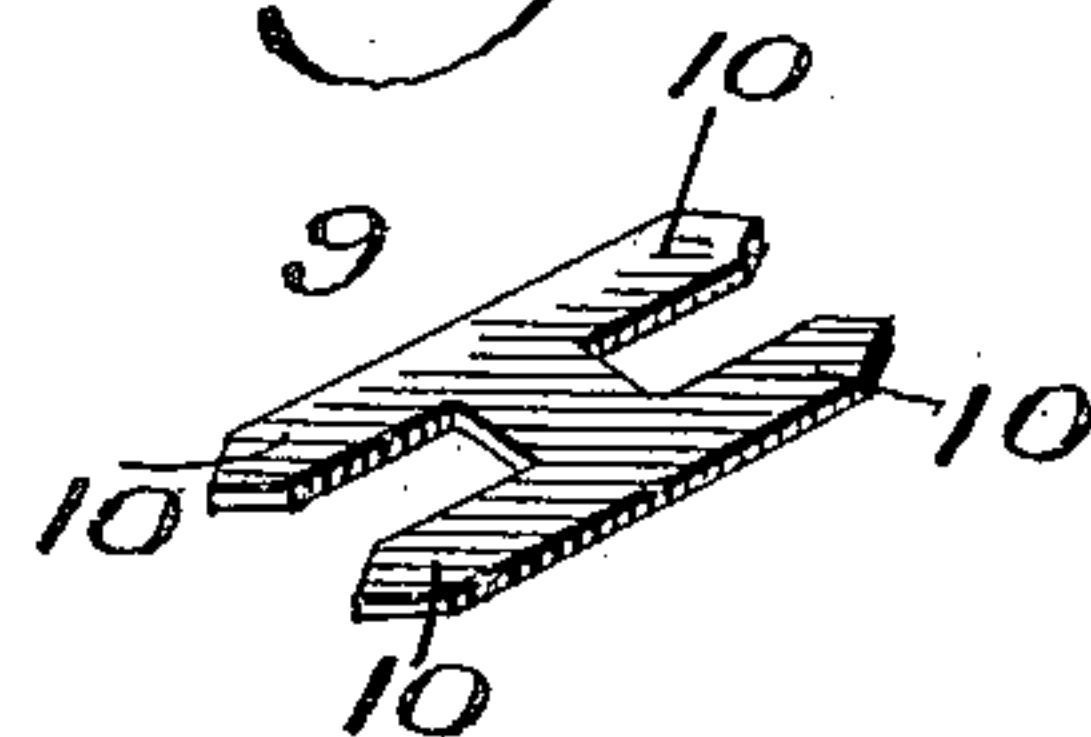


Fig. 3.

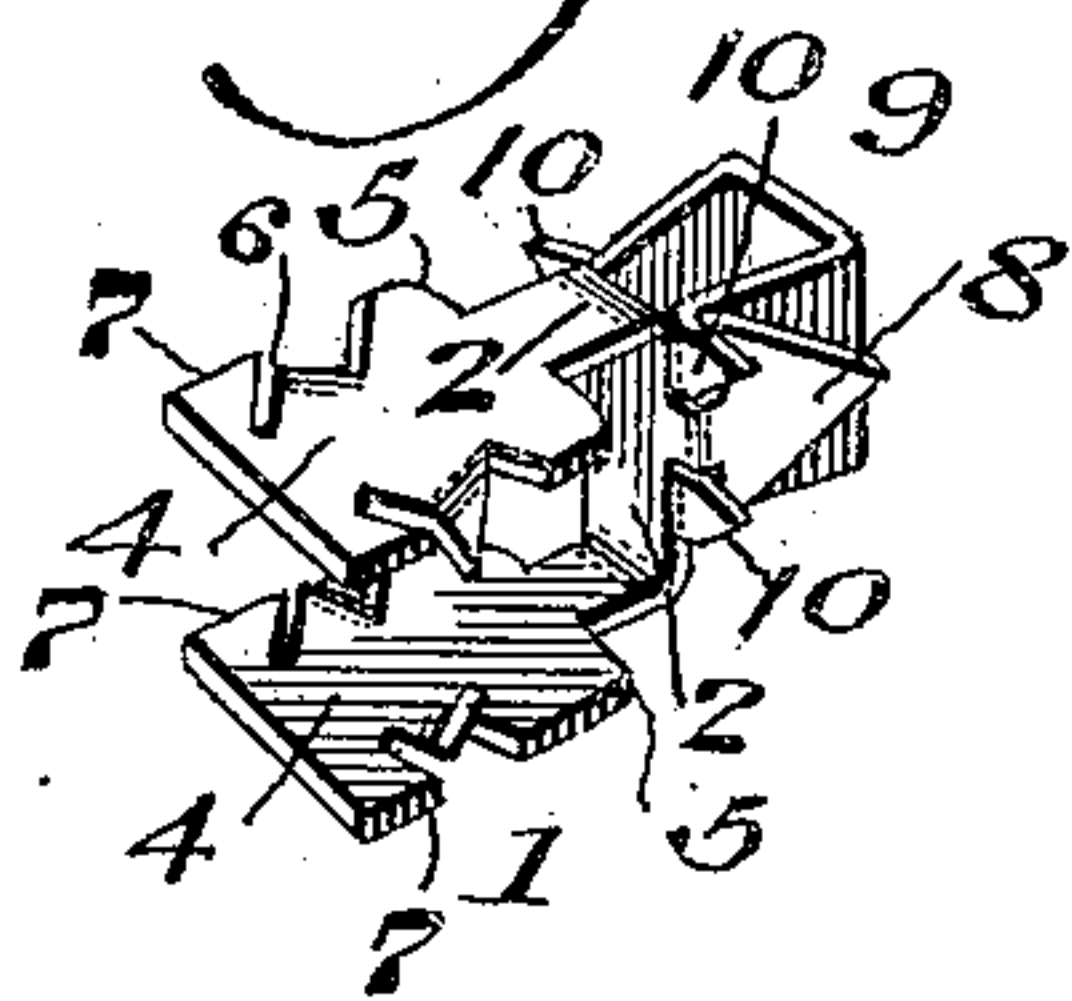


Fig. 4.

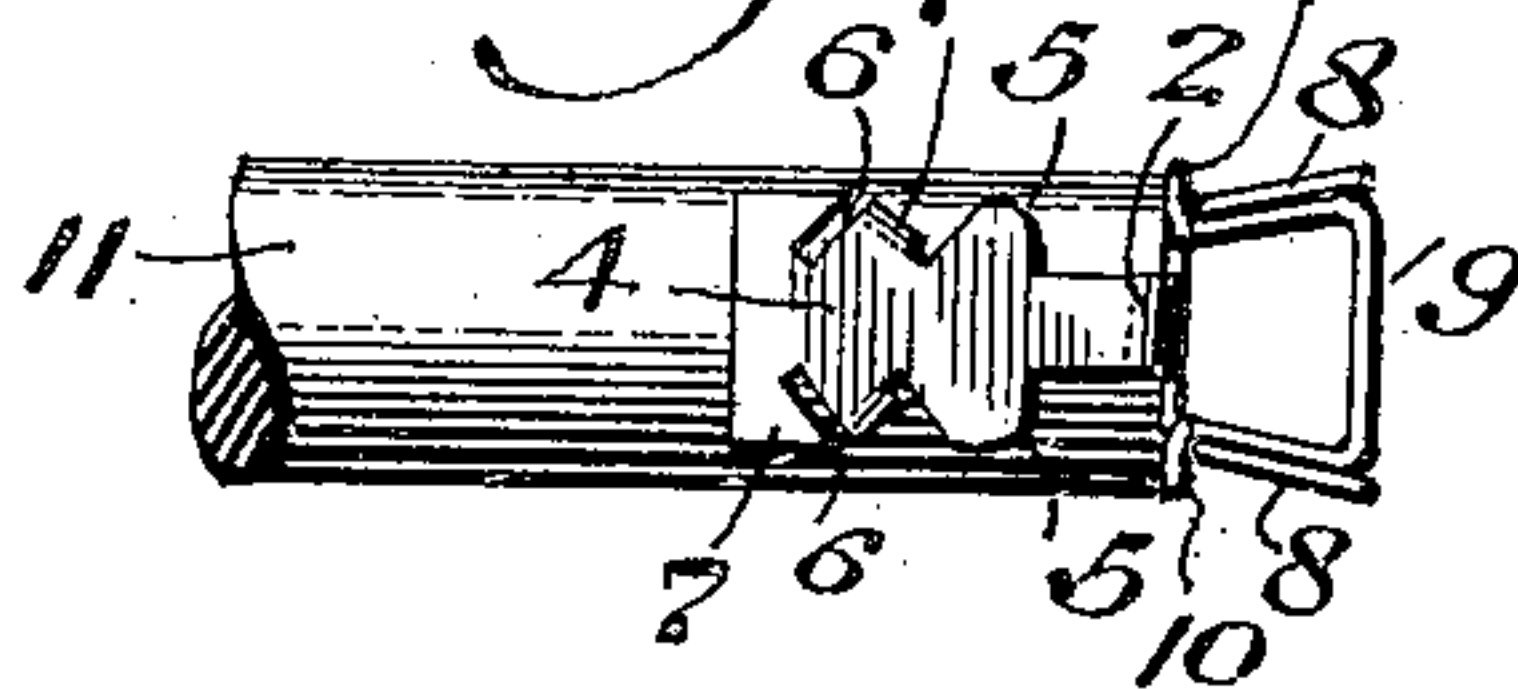


Fig. 5.

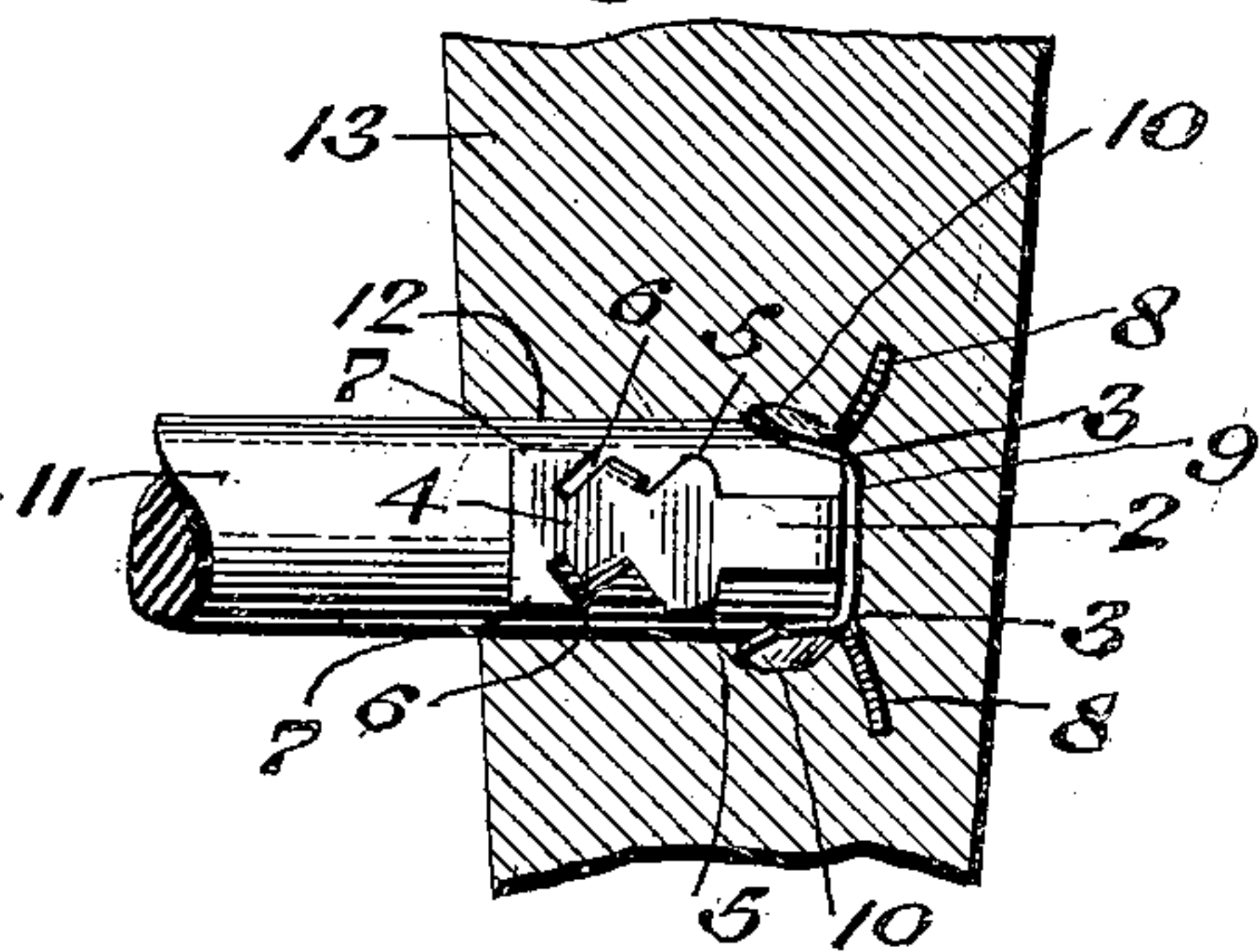
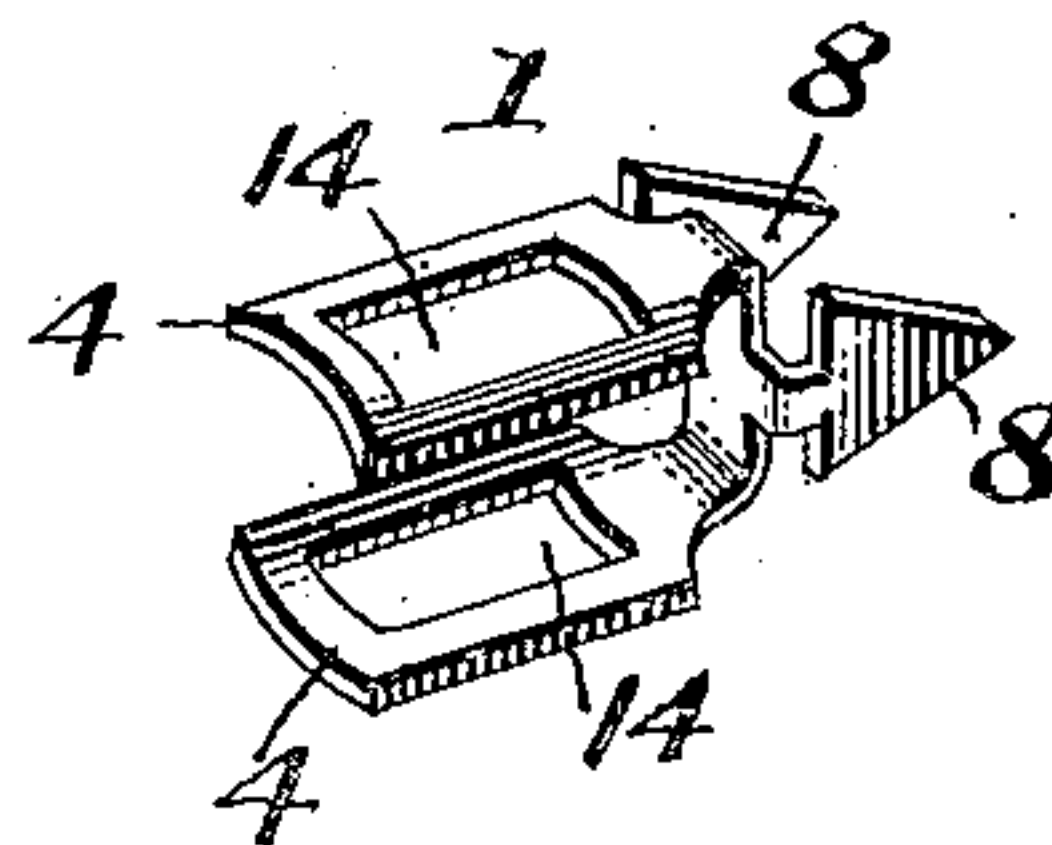


Fig. 6.



WITNESSES

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## JOINT FOR FURNITURE.

978,530.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Application filed April 6, 1910. Serial No. 553,749.

*To all whom it may concern:*

Be it known that I, PERCY G. ABRAMS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Joint for Furniture, of which the following is a specification.

This invention relates to a jointing device for furniture and the like, and more particularly to a fastening means for uniting the rungs of a chair or the like article to the leg or other parts thereof, whereby the several members are secured together without employing glue or other cementing material.

In devices as heretofore constructed for this or like purposes it has been proposed to unite the several parts together by screw threaded or wedge like structures consisting of many parts and more or less complicated and expensive to assemble and which in operation are not effective for the purpose intended. It has also been proposed in former structures to utilize fastening devices stamped out of metal, but in so far as I am aware these have been of one piece constructions and have no coöperating parts to insure the proper operation of the device when in position upon a chair rung or the like and the stability of the completed article is uncertain.

In my present invention I have devised a fastening device preferably formed from sheet metal and consisting preferably of coöperating parts which produce a certain expanding action during the operation of assembling the parts, whereby the device contacts with the adjacent material and secures the parts together.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Referring to the drawings: Figure 1 represents a perspective of a blank forming one part of my novel fastening device. Fig. 2 represents a perspective of a blank forming the other portion of the same. Fig. 3 rep-

resents a perspective of the device in assembled position. Fig. 4 represents a side elevation of the device applied to a suitable rung. Fig. 5 represents a side elevation of the device in locking position. Fig. 6 represents a perspective of a modified form of one portion of the device.

Similar numerals of reference indicate corresponding parts in the figures.

1 designates a suitable blank so stamped as to form arms 2 and 3, the former of which terminates in plates 4 which are here shown as having a rounded portion 5 joining the arms 2. At suitable intervals these plates 4 are provided with slots 6 forming teeth 7 on each side for the purpose of engaging and biting into the wood or like material with which the blank is to be used. The arms 3 terminate, as here shown, in heads 8, preferably pointed in order to serve as teeth, which are adapted to be pressed into the material and act as locking devices to hold the parts together.

9 represents a blank preferably substantially U-shaped, having the prongs 10 thereon for a purpose to be presently described.

In assembling the device the member 9 is bent into a substantially U-shaped form and the prongs 10 preferably turned outward in order to coöperate with the heads 8 of the member 1. The blank 1 is now suitably bent into the required shape which consists in turning the heads 8 back upon the member 9 so that they assume a converging position with respect to each other, as seen in Fig. 3. The arms 2 are then each given a bend in the same direction to bring the plates 4 into a substantially parallel spaced-apart position, so that a rung or like article may readily be inserted between them. It will be noted when the device has thus been assembled that the two members 1 and 9 are loosely connected together and have a sliding relation one to the other, so that any movement of the member 9 tending to telescope the two members will result in the heads 8 contacting with the sides of the member 9, thereby preventing them from bending backward away from the material, and insuring that the heads 8 project so as to bite into the material.

In the operation of the device the rung 11 of a chair or the like is inserted between the two plates 4, which latter are then hammered or squeezed into close contact with



the rung in order to affix the member 1 firmly in position by driving the teeth into the material. The rung 1 with the device attached thereto is then driven into a suitable  
 5 socket 12 of a member 13, and as soon as the member 9 engages the bottom of the socket it telescopes with its coöperating member 1, and thus forms a reinforcing backing which prevents the heads 8 from  
 10 bending improperly and insures their being forced into the sides of the socket, the telescoping action causing the beveled heads to spread apart as in Fig. 5. This telescoping action causes the prongs 10 of the member  
 15 9 to be diverged and driven into the side walls of the socket 12 so that any movement tending to pull the rung outwardly will result in embedding the prongs 10 farther into the walls of the socket, thus forming an in-  
 20 dependent locking engagement, effectually preventing the withdrawal of the rung and its attached member 1.

In the modification shown in Fig. 6 the member 1 has the side plates 4 provided  
 25 with an opening 14 which performs the same function as to locking the member on the rung as the teeth 7 do in the heretofore described form, that is to say, the material of the rung is forced up into the openings 14  
 30 and securely maintains the device in position. It will of course be understood that the member 9 coöperates with this modification in the same manner as described and is an equally efficient means of securing the  
 35 two parts of the furniture together.

It will now be apparent that I have devised a simple and effective means for uniting two members together, such as a chair  
 40 rung and leg, and in which the holding strength depends for efficient operation in the sliding movement between the two members 1 and 9 and in the interlocking and diverging of the parts or heads in opposite directions during the movement of the rung  
 45 when being forced into position. It will be noted that this sliding action tends to move the said prongs and heads relative to each other and cause the same to be indented into the sides of the socket, thereby holding  
 50 the parts firmly locked together.

It will now be apparent that I have devised a novel and useful construction of a joint for furniture, which embodies the features of advantage enumerated as desirable  
 55 in the statement of the invention and the above description, and while I have, in the present instance, shown and described a preferred embodiment thereof which has been found in practice to give satisfactory  
 60 and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

65 Having thus described my invention, what

I claim as new and desire to secure by Letters Patent, is:—

1. In a device of the character stated, a strip of material bent into a substantially U-  
 70 shape, means to secure said strip to a rung, heads on said strip, and a locking member slidably connected to the said strip and adapted to diverge said heads.

2. In a device of the character stated, a strip of material bent into a substantially U-  
 75 shape, means to secure said strip to a rung, heads on said strip, a locking member slidably connected to said strip and adapted to diverge said heads, and prongs on said locking member.  
 80

3. In a device of the character stated, a strip of material, a plate formed on each end of said strip, means on each plate to se-  
 85 cure said strip to a rung, heads on said strip, and a locking member slidably connected to said strip and adapted to diverge said heads.

4. In a device of the character stated, a strip of material, a plate formed on each end of said strip, means on each plate to se-  
 90 cure said strip to a rung, heads on said strip, a locking member slidably connected to said strip and adapted to diverge said heads, and prongs on said locking member.

5. In a device of the character stated, the combination of a blank comprising plates  
 95 spaced apart in substantially parallel relation, heads oppositely disposed with respect to said plates, and a locking member movably secured to said blank and adapted to coact with said heads to force the same apart.  
 100

6. In a device of the character stated, the combination of a blank comprising plates  
 105 spaced apart in substantially parallel relation, heads oppositely disposed with respect to said plates, and a locking member movably secured to said blank and having an outwardly turned prong on each side thereof said member being adapted to coact with said heads to force the same apart.

7. In a device of the character stated, the  
 110 combination of a blank comprising plates spaced apart in substantially parallel relation, heads oppositely disposed with respect to said plates, and a locking member movably secured to said blank and having a plu-  
 115 rality of outwardly turned prongs on each side thereof said member being adapted to coact with said heads to force the same apart.

8. In a device of the character stated, the combination of a blank comprising plates  
 120 spaced apart in substantially parallel relation, heads oppositely disposed with respect to said plates, and a locking member movably secured to said blank and having converging sides adapted to co-act with said  
 125 heads to force the same apart.

PERCY G. ABRAMS.

Witnesses:

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 C. D. McVAY.