



No. 712,898.

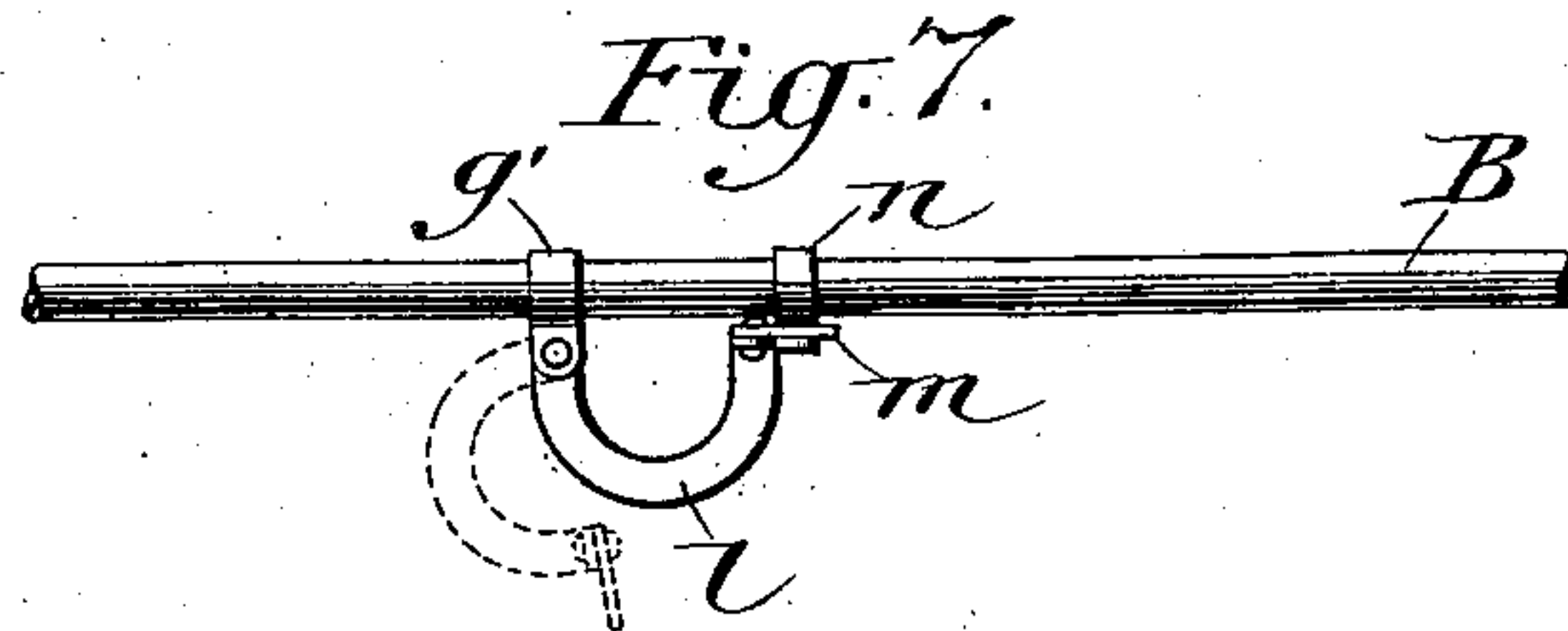
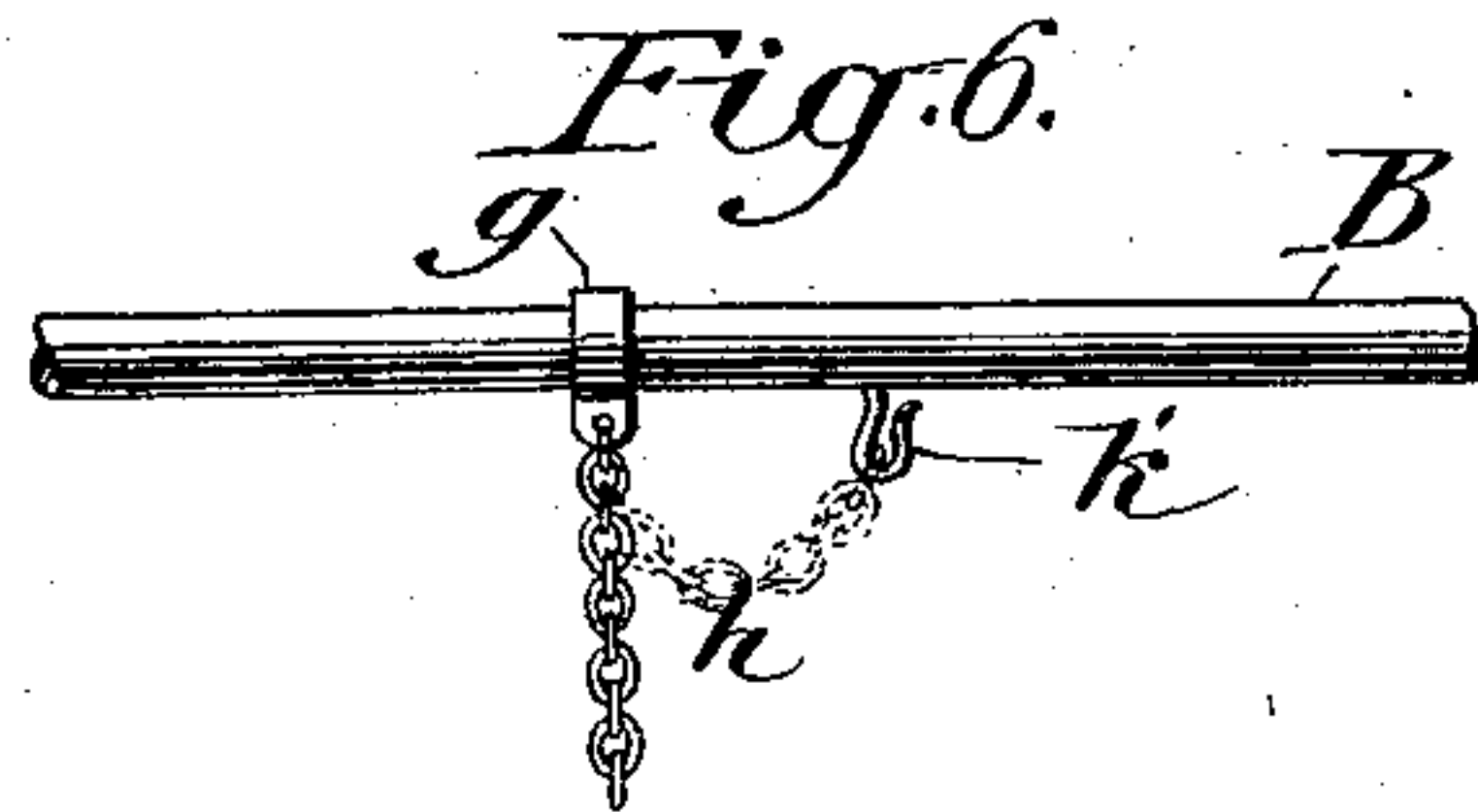
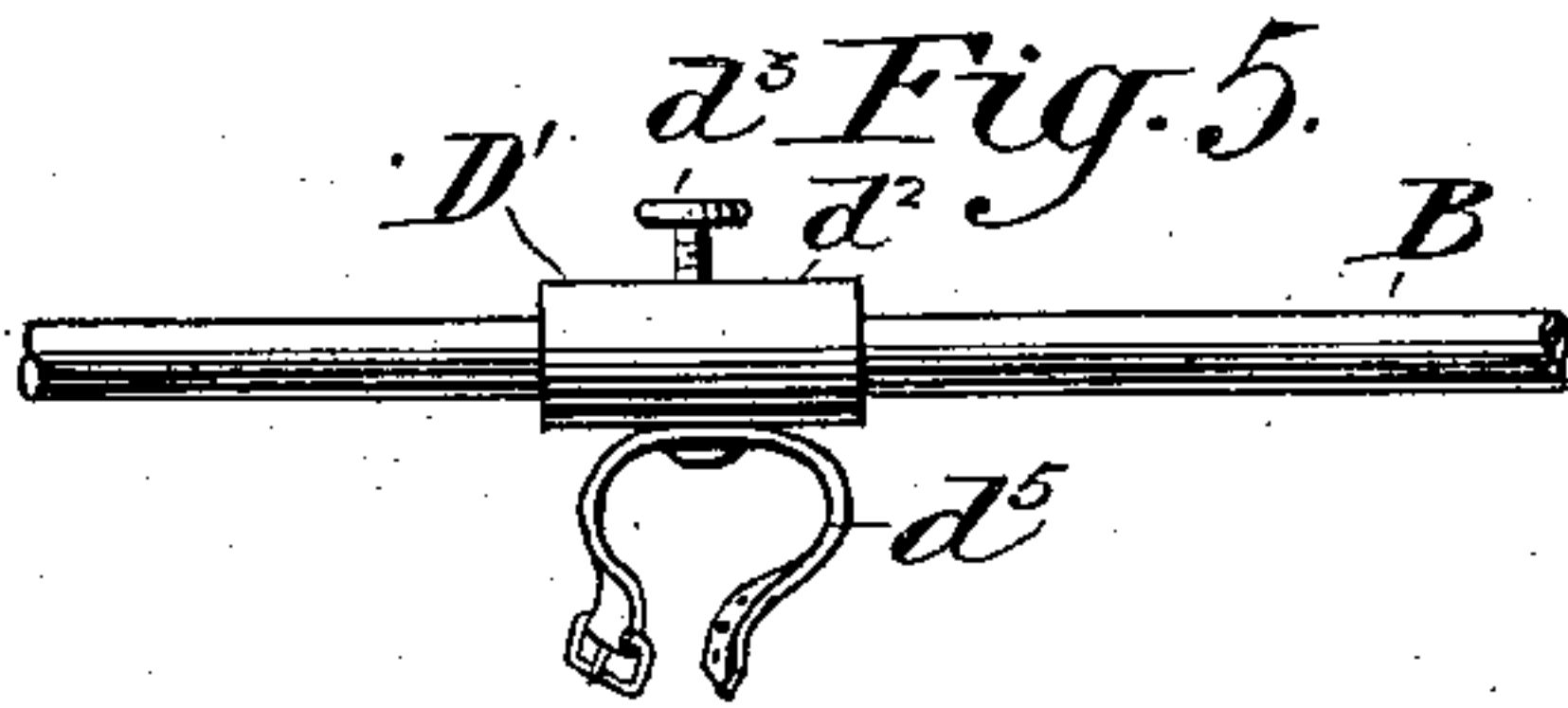
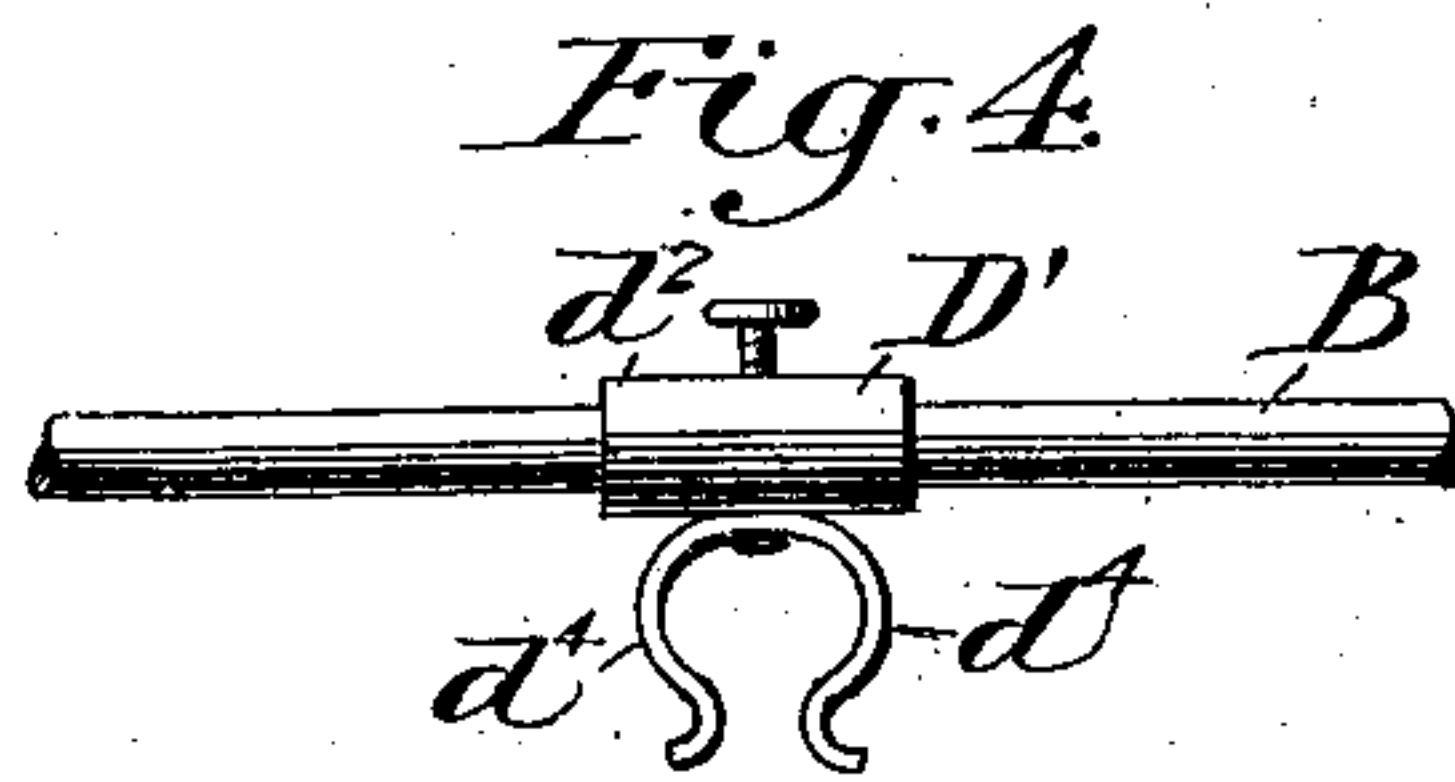
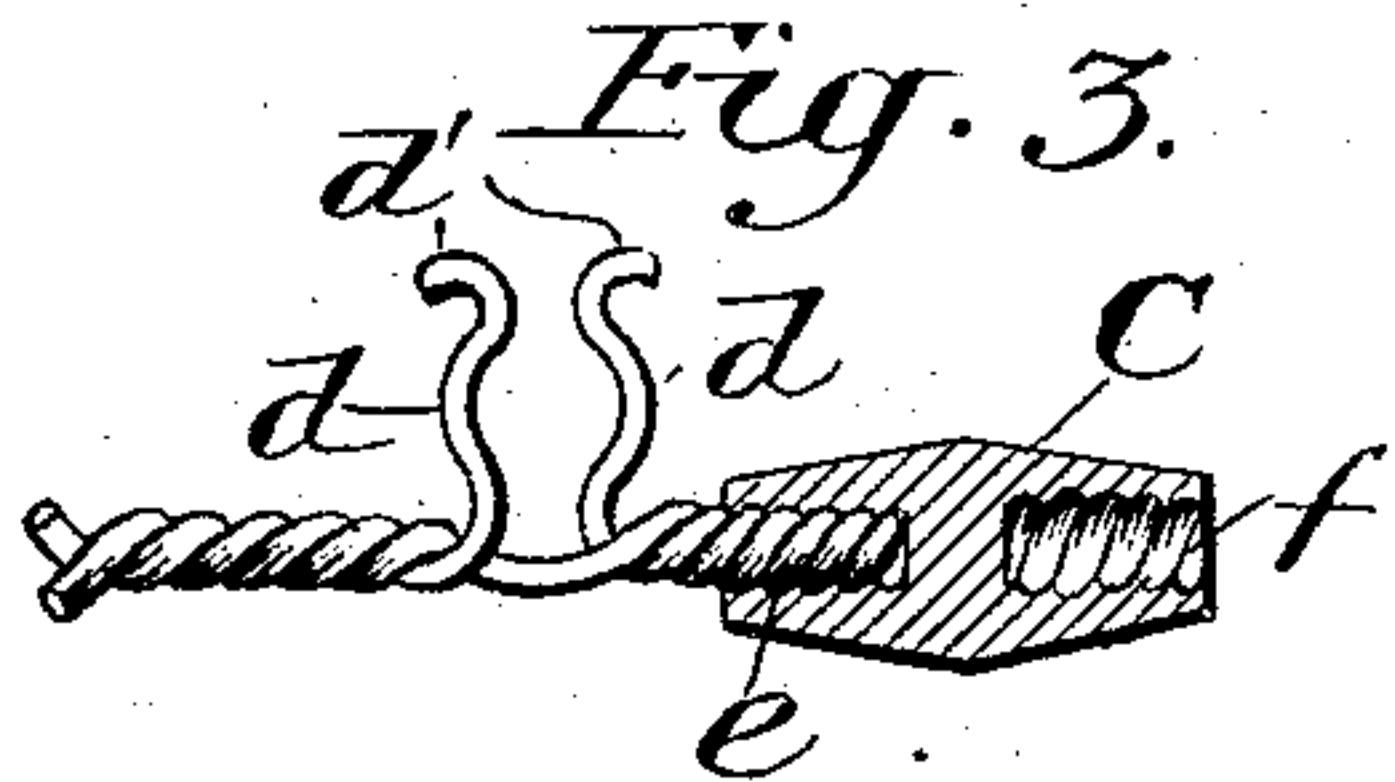
Patented Nov. 4, 1902.

A. P. BARNEY.  
CHAIR FASTENING DEVICE.

(Application filed July 3, 1902.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ALICE P. BARNEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

## CHAIR-FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 712,898, dated November 4, 1902.

Application filed July 3, 1902. Serial No. 114,248. (No model.)

*To all whom it may concern:*

Be it known that I, ALICE P. BARNEY, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Chair-Fastening Devices, of which the following is a specification.

My invention relates to devices for fastening chairs together in a row, so that the alignment of the same when the chairs are arranged in a desired order cannot be disturbed unless the fastenings are removed. Although the device may be applied to any style of chairs, it is more particularly designed for the ordinary wooden chairs, such as are usually placed in public halls, churches, theaters, and such other places as are used for the assembly of people. Heretofore it has been the custom to arrange the chairs in suitable rows without providing any means to secure the same together except by permanently fastening a board to the under side of the seats or to the backs thereof. It is the purpose of my invention, however, to provide a device the length of which will accommodate any number of chairs in the row and the fastenings to be of a detachable character, so that the chairs may be readily fastened together when first arranged and readily unfastened when their removal is desired. By this arrangement the unconscious and thoughtless attempts of the occupants or other persons to draw the chairs out of alinement or carry the same around are prevented, yet should the occasion demand it any single chair or group of chairs can readily be removed from the others. The preferred form of my device consists of metal rods which extend underneath the seats of the chairs to any length required. These rods may be of any desired length and when more than one is required the same are fastened together by suitable couplings. On each rod are clamps which are adapted to fasten the front legs of the chairs to the rod. The clamps may be adjustable longitudinally of the rod to accommodate different sizes of chairs and are also of such a nature as to accommodate chair-legs of any shape or contour. The rods are provided with suitable end pieces to prevent the same from catching on the clothing of the occupants.

Further details of my invention will be described in the following description, taken in connection with the accompanying drawings,

in both of which like reference characters refer to corresponding parts.

In the drawings, Figure 1 is a perspective view of a row of chairs with the fastening device in position. Fig. 2 is a plan view of one modification of the fastening device made of twisted wire. Fig. 3 is a fragmentary view of the modification shown in Fig. 2 having the coupling attached. Figs. 4, 5, 6, and 7 are views of different forms of clamps.

Referring to Fig. 1,  $A^1 A^2 A^3$  represent the chairs arranged in a row, made up of sections containing three chairs in each. B represents the fastening device, which is made up of sections  $B^1 B^2 B^3$ . These sections are fastened together by the couplings C. D represents spring-clamps which fasten the legs of the chairs to the rod B. The ends of the rod are provided with end pieces E, which may be detached from the rod when the device is removed. It is not necessary that the rods should be made in sections nor that the clamps should be adjustable longitudinal of the same, for the entire device, if desired, may be made of one piece without any adjustable or removable parts to accommodate any set arrangement or prevailing design of chairs. Neither is it necessary that the rod should be circular in cross-section or made of metal, for any suitable material or design of rod may be utilized, according to taste, economy, and utility.

In Fig. 2 the rod  $B^4$  is made of twisted wire in such a manner that the ends  $E E'$  are formed in a loop to protect the clothing from being caught or torn in the same manner as the balls  $E E$ . (Shown in Fig. 1.) In this figure, as in Fig. 4, the clamp consists of two spring-wire jaws or arms  $d d$ , having their outer ends contracted and turned away from each other, as at  $d' d'$ , and their middle portions bent out away from each other. By this construction the ordinary round chair-leg may be pressed against the contracted opening between the ends  $d' d'$ , forcing the jaws apart to enable the leg to slip into the central portion after being forced into the clamp. The ends  $d' d'$  will then again contract and hold the leg in position. As shown in Fig. 3, the jaws or arms of these clamps may be made from the ends of the twisted wire in the rod. Should the rod be made in sections, the ends thereof may be twisted more closely to form a spiral thread  $e$  to take into the thread  $f$ .



taken in the ends of the coupling or turn-buckle C.

By the construction illustrated in Figs. 3 and 4 I am enabled to form an economical and ornamental device in which short pieces of wire may be utilized to advantage.

In Figs. 4 and 5, D' represents an adjustable clamp consisting of the sleeve  $d^2$ , slidable on the rod B. This sleeve may be fastened in any position along the rod by a set-screw  $d^3$ . Any suitable clamp may be fastened to the sleeve  $d^2$ ; but in Fig. 4 I have shown a clamp consisting of spring jaws or arms  $d^4$ , made of a single metal strap riveted to the sleeve  $d^2$ .

In Fig. 5,  $d^5$  is an ordinary leather strap and buckle riveted to the sleeve  $d^2$ , constituting in the meaning of the invention an arm and cooperating means. In this latter construction the strap being flexible it can encircle and fasten chair-legs of varying diameter and cross-section. By this construction also I am not only enabled to slide the clamp along the rod, so that the clamp will come adjacent to its corresponding chair-leg, but the strap-and-buckle construction will enable the clamp to also accommodate different styles of chair-legs.

In Fig. 6 the clamp consists of the collar  $g$ , to which is fastened the chain-arm  $h$ . When the chair-leg is in position, any of the links of the chain may take over the hook  $k$  to fasten the leg in position. This construction also forms a fastening which will accommodate any style of chair-leg and which may be readily hooked and unhooked for the purpose of insertion or removal of the leg.

In Fig. 7 the clamp consists of the collar  $g$ , having pivoted thereto the jaw or arm  $l$ . This jaw or arm may be of such a contour as to conform to the leg of the chair. Its open position is indicated by dotted lines, and when closed it is fastened to the collar  $n$  by the lever  $m$ , which swings in a vertical plane at the end of the jaw.

Although I have used various terms throughout the specification—such as "chair-leg," "rod," "clamps," "end pieces," &c.—for the sake of illustration, I do not wish to limit myself by the use of any of these terms, for in the construction of my device I may substitute any of the well-known equivalents thereof, particularly for the clamp, which may be replaced by any form of fastening performing a like function. Neither do I wish to limit myself to the exact location of any of the forms of clamps illustrated in the drawings, for the same may be interchanged on various styles of rods, and, further, may be longitudinally adjustable or have a fixed position, and I wish it further understood that although couplings are shown in the drawings where the chairs are placed in groups, yet the couplings may be used in any desired position on the rod for the purpose of making a knockdown device.

I am well aware that in the art opera and

other chairs are disclosed having means for fastening the same together permanently; but such devices are, broadly, not part of my invention; but I reserve the right to utilize any other modifications not herein illustrated or described, provided the same are covered by my invention as pointed out in the appended claims.

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

1. In a device for fastening chairs together in a row, a rod adapted to extend longitudinally of the row, and an arm and cooperating means for detachably embracing and securing members of chairs thereto, substantially as described.
2. In a device for fastening chairs together in a row, a rod adapted to extend longitudinally of the row, and means on the rod for directly receiving and detachably embracing legs of chairs, substantially as described.
3. In a device for fastening chairs together in a row, a rod adapted to extend longitudinally of the row, and means on the rod for detachably fastening members of chairs thereto, said means being adjustable longitudinally of the rod, substantially as described.
4. In a device for fastening chairs together in a row, a rod adapted to extend longitudinally of the row, and spring-clamps on the rod for detachably embracing and fastening members of chairs thereto, substantially as described.
5. In a device for fastening chairs together in a row, a rod adapted to extend longitudinally of the row, and means on the rod for detachably embracing and fastening members of chairs thereto, said rod having its ends formed of enlarged round pieces adapted to serve as clothing-guards, substantially as described.
6. In a device for fastening chairs together in a row, a rod adapted to extend longitudinally of the row, said rod being made up of separate sections, couplings for fastening the sections together, and spring-clamps on the rod for detachably embracing and securing members of chairs thereto, substantially as described.
7. In a device for fastening chairs together in a row, a rod adapted to extend longitudinally of the row, said rod being made up of separate sections, couplings for fastening the sections together, and spring-clamps on the rod for detachably embracing and fastening members of chairs thereto, said spring-clamps being adjustable longitudinally of the rod, and said rod having its ends formed of enlarged round pieces, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALICE P. BARNEY.

Witnesses:

FREDERIC D. MCKENNEY,  
GEORGE E. SULLIVAN.