

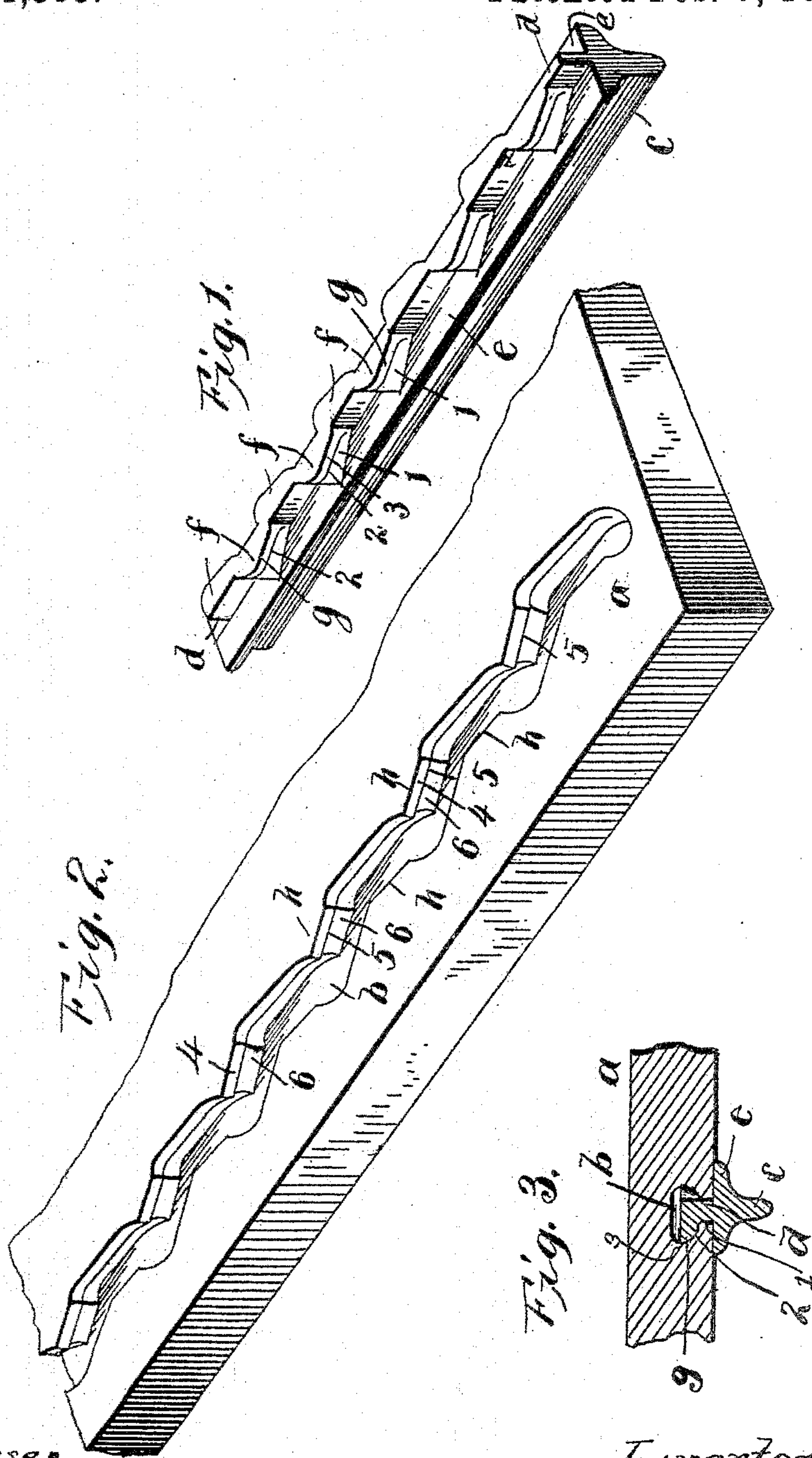
(No Model.)

2 Sheets—Sheet 1.

J. H. STIGGLEMAN.  
FASTENING FOR FURNITURE.

No. 491,383.

Patented Feb. 7, 1893.



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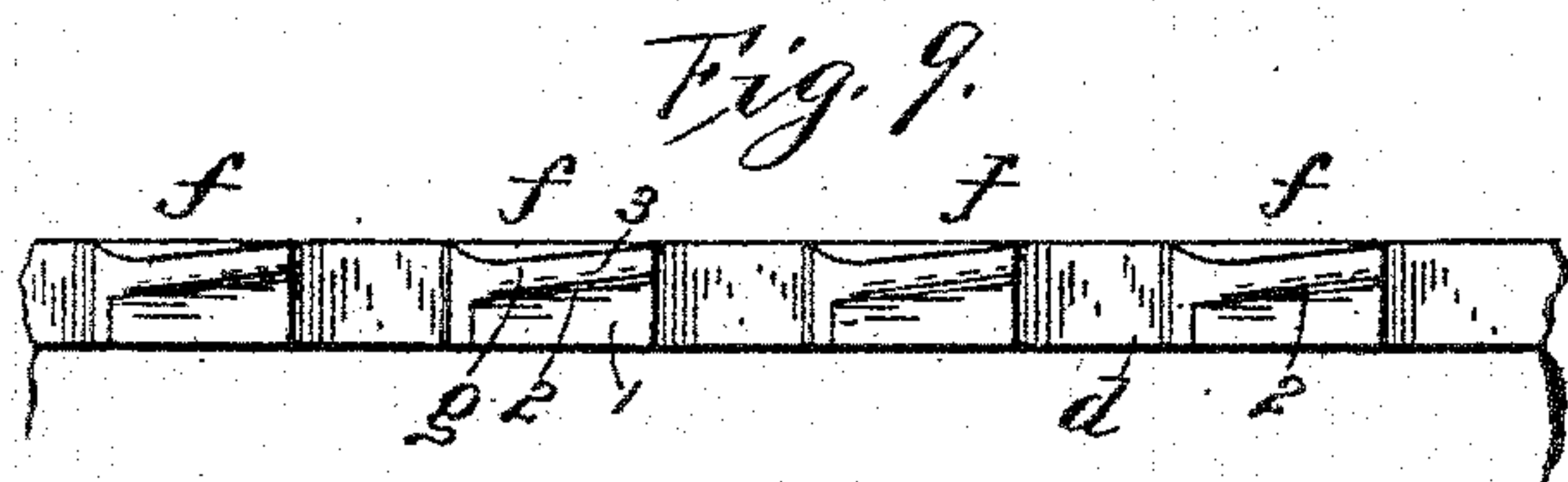
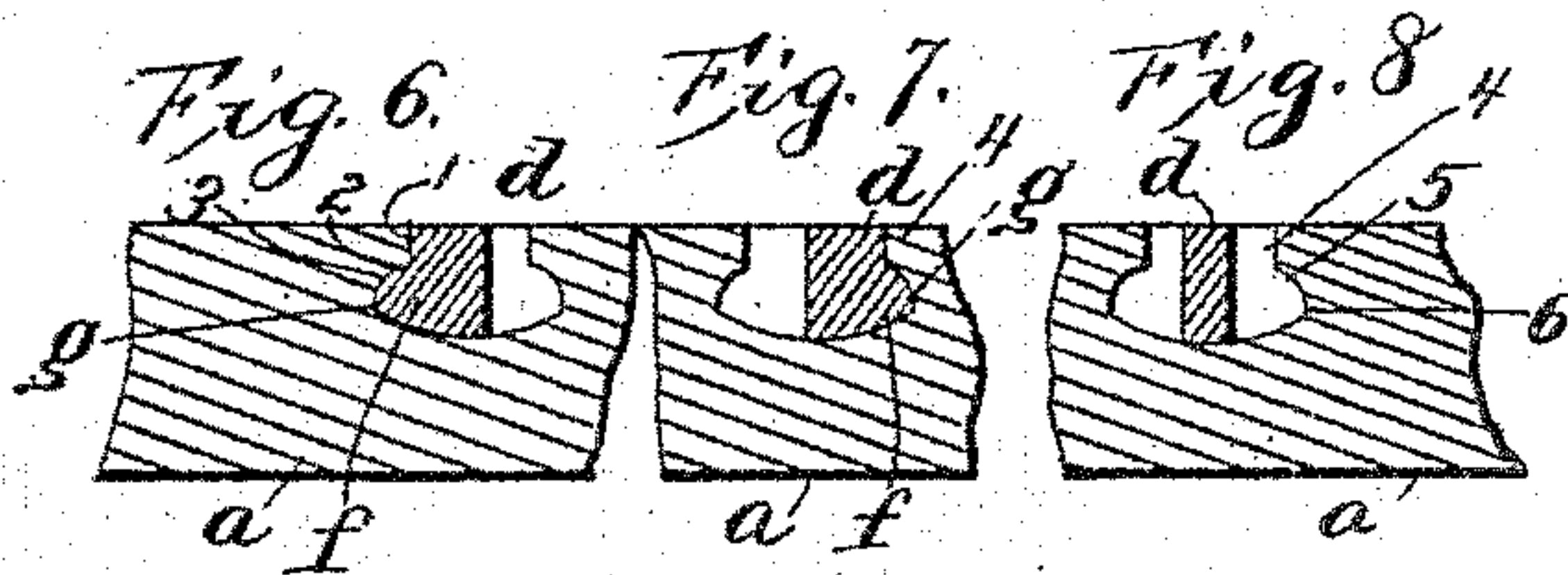
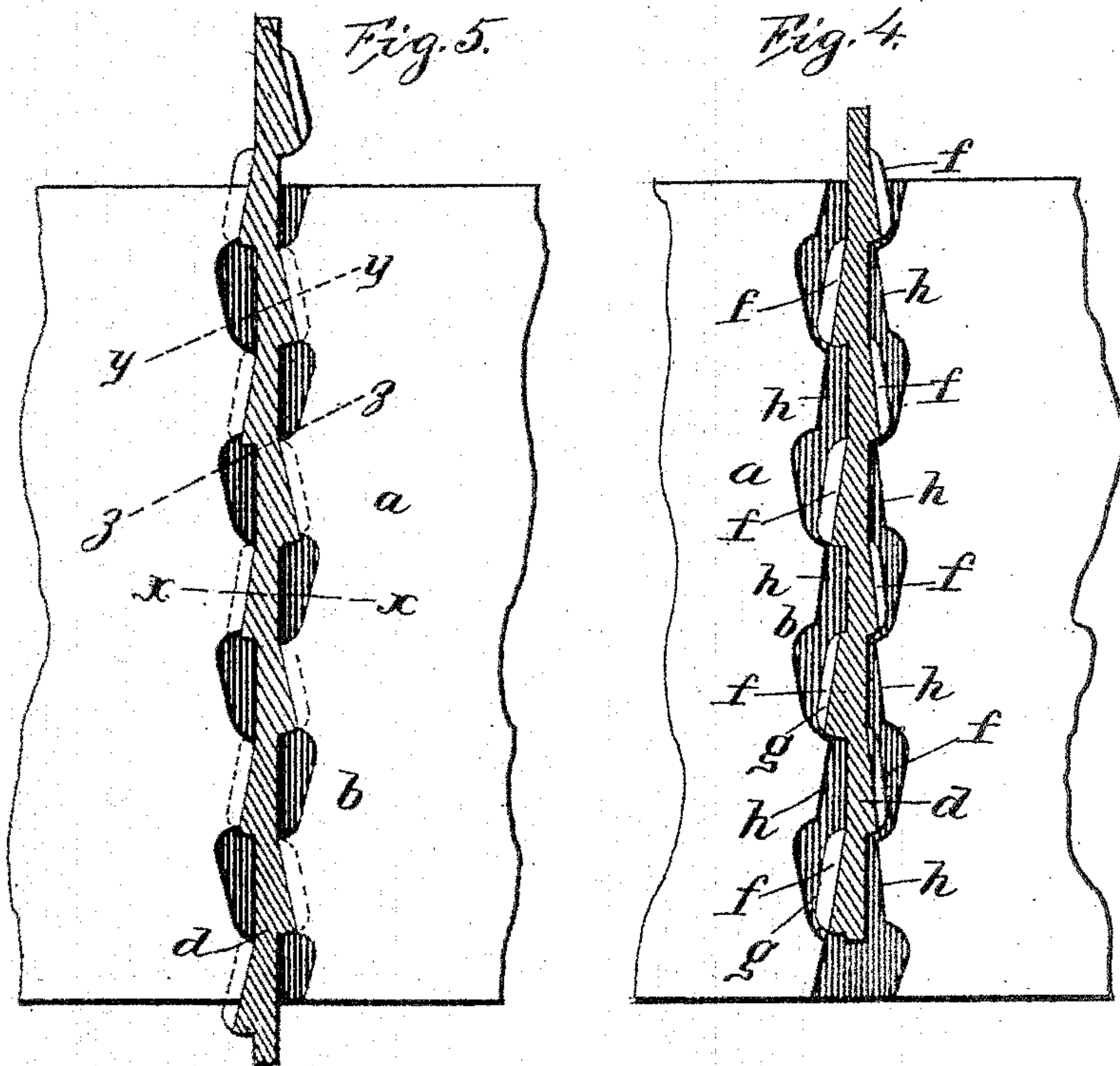
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WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES H. STIGGLEMAN, OF WABASH, INDIANA.

## FASTENING FOR FURNITURE.

SPECIFICATION forming part of Letters Patent No. 491,383, dated February 7, 1893.

Application filed February 9, 1892. Serial No. 420,909. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. STIGGLEMAN, of the city of Wabash, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Devices for Fastening the Iron and Wooden Portions of Furniture; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in fastening devices for uniting the woodwork of furniture to the iron framework of standards thereof.

The object of the invention is to provide an improved fastening by means of which solid wooden backs and solid wooden seats or the like can be quickly, readily and most rigidly attached to the iron work or standards.

A further object of the invention is to produce such a fastening which will be exceedingly strong, durable and wherein the fastening devices of the iron frame will be provided with a rigid, securely braced, and extended bearing surface within the corresponding grooves in the wooden portion, whereby the parts can be quickly and readily locked, and so that such bearing can be obtained and the parts firmly locked without displacing or mashing away any material portion of the boundary walls of said grooves.

This invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claim.

Referring to the accompanying drawings, Figure 1, shows a portion of the iron framework in perspective. Fig. 2, represents in perspective the under surface of the woodwork showing the receiving grooves therein. Fig. 3, is a detail cross section showing a key of the fastening rib of the iron portion fitted against the corresponding seat or key of the groove. Fig. 4 is an inverted plan view of a portion of the wood work containing the holding groove showing the rib in section in the position it assumes when first placed in the

groove. Fig. 5 is a similar view showing the position of the parts when the wood work has been moved longitudinally to lock the keys. Figs. 6, 7, and 8, are cross sections taken in the planes of lines  $x-x$ ;  $y-y$ ;  $z-z$ : respectively Fig. 6. Fig. 9 is a side elevation of the holding rib and its keys.

In the drawings reference letter  $a$ , indicates a portion of the woodwork provided with a locking receiving groove  $b$ , of a suitable depth and width.

$c$ , indicates a portion of the iron framework provided with the flange  $e$ , of sufficient width to cover the groove  $b$ , when the parts are in locked position. The fastening bar  $d$ , extends longitudinally and centrally of this flanged face  $e$ , and is of sufficient height to extend almost to the top of groove  $b$ . This bar consists of a straight rib having compound keys or wedges  $f$ , projecting alternately from each side thereof, and all inclined longitudinally of the rib toward the same end thereof, and the keys on each side are inclined at the same angle. Thus the keys on each side are inclined in parallel planes. The keys are arranged closely together in alternation so that the spaces between the keys on each side are each substantially equal to the length of a key. This is the preferred arrangement, as it brings the keys close together so as to increase the bearing and locking surfaces to a maximum. Each key is in height equal to the height of the rib or fastening bar  $d$ , that is, each key has its upper edge flush with the upper edge of said bar and extends from thence to the flanged face  $e$ , of the framework. Each key has three bearing surfaces or faces formed by the vertical face 1 of the key and the projecting portion  $g$ , at the upper longitudinal edge of the key. This edge  $g$ , projects or juts laterally a short distance from the upper longitudinal face of the key so that the outer edge of said projection forms bearing surface 3, and the under edge of said projection forms bearing surface 2, which bearing surface 2 is on its under surface wedge shaped or inclined longitudinally as shown in Fig. 1 so that all of the surfaces incline in the same direction. The vertical face of the key between said flange  $e$ , and surface 2, forms a third bearing surface 1. The groove  $b$ , is cor-



respondingly formed to receive the rib *d*, and its locking keys. The fastening compound keys or bearing surfaces *h*, project inwardly and alternately from each wall of said groove.

5 These seats are inclined lengthwise of the groove at substantially the same angle as the keys of the locking rib *d*, and each seat is of substantially the same length as a key. The seats on each side of the groove, respectively,

10 extend in parallel planes, and each side has three bearing surfaces. The bearing surface 4, receives the face 1, of the locking key and projects slightly inwardly from the lower part of vertical face 6, so that the groove is formed

15 somewhat undercut, thereby forming the third bearing face 5, between faces 4, and 6, to receive the face 2, of the key of the fastening bar.

In joining the parts they are brought together so that the keys will pass into the grooves through the intervening spaces between their respective seats in the groove, and then by moving the wooden back or seat on the framework a short distance longitudinally

25 of the groove, the keys will be seated and by a light blow will be most firmly locked, the respective keys engaging their respective seats throughout their entire length, and tightly and firmly wedging therein.

30 The under inclined faces 2, of the keys will engage the upper faces 5, of their seats and will tightly draw the wood and iron work together and will at the same time form a firm and secure brace and prevent loosening of the

35 parts, and will tightly and securely hold the parts against separation.

It should be observed that each key has a bearing and seat in the groove throughout its entire length, hence the fastening device has

40 an extended length of bearing and locking surfaces, which is of the utmost importance

in a fastening of this kind. In fact, my device is the nearest possible approach to a continuous bearing and locking surface. The bearing surface shown in my device being 45 four-fifths of the length of the locking rib. Furthermore great strength is attained by the undercut or jutting in my device which possesses many advantages over the ordinary dovetailed arrangement, and great strength is 50 attained by having the keys closely arranged alternately on opposite sides of the rib, and engaging their seats throughout their entire widths and lengths so that the fastening is securely braced. 55

Having thus fully described my invention, what I claim and desire to secure by Letters Patent of the United States is:—

The fastening device comprising the frame work having the rib, the wedge shaped keys 60 longitudinally located on opposite sides of the rib and all longitudinally inclined toward the same end of the rib and extending from the frame-work to the upper edge of the rib, each key having at its upper surface the lon- 65 gitudinally inclined lateral ledge, wedge shaped on its under surface as described, each key as a whole forming the three bearing surfaces 1, 2, and 3, in combination with the wood work formed with the holding groove 70 having inclined seats corresponding to the keys and all inclined toward the same end of the groove and each undercut as described, and having the three bearing surfaces corresponding to the bearing surfaces of the keys. 75

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

JAMES H. STIGGLEMAN.

Witnesses:

WARREN BIGLER,  
JAMES W. STEWART.