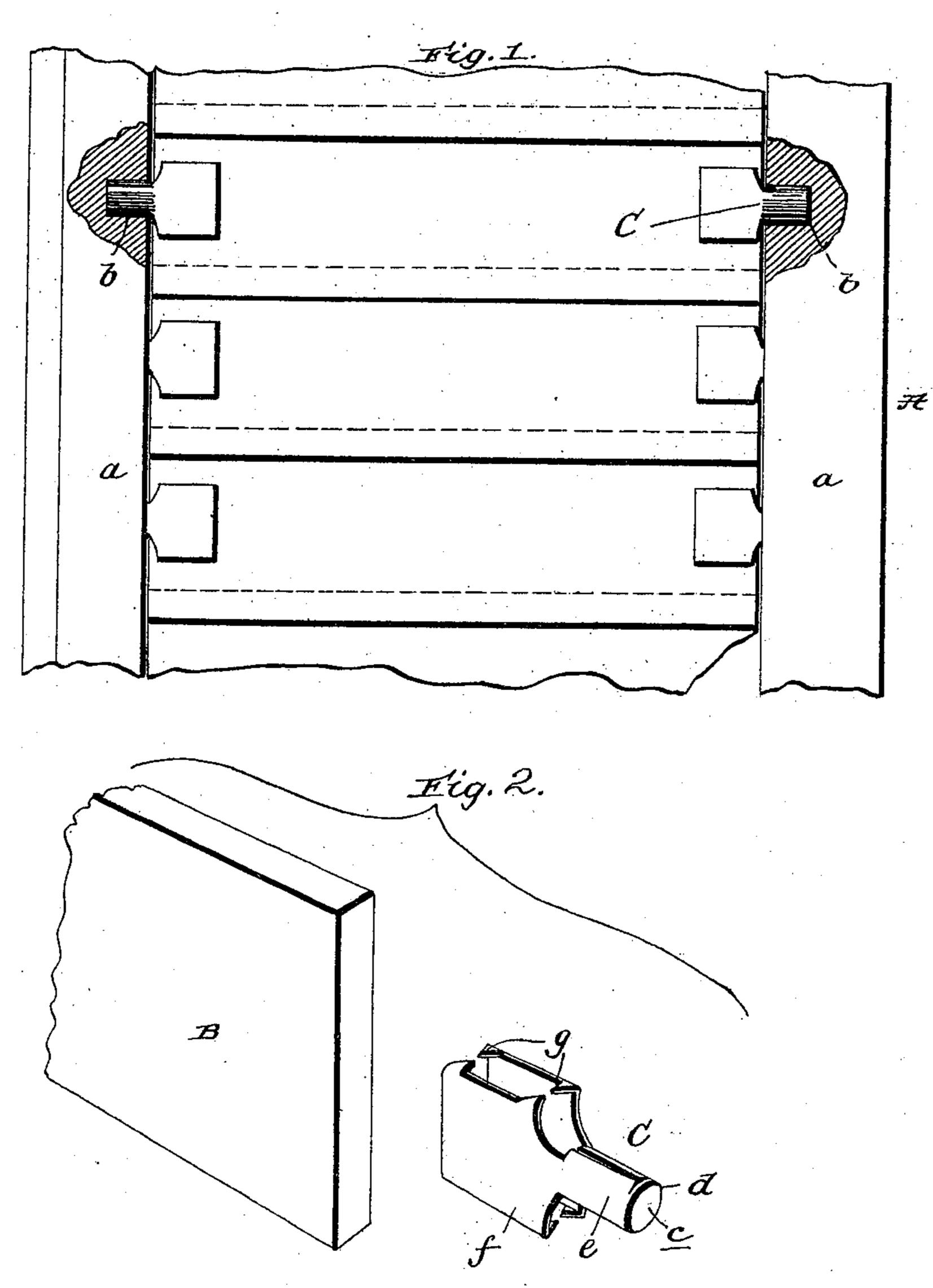
## A. D. MILLER. BLIND SLAT TENON.

(Application filed Sept. 8, 1898.)

(No Model.)



Witnesses:

## United States Patent Office.

AARON D. MILLER, OF EVANSVILLE, INDIANA, ASSIGNOR OF ONE-HALF TO SIMON J. ADLER AND ARTHUR J. ADLER, OF SAME PLACE.

## BLIND-SLAT TÉNON.

SPECIFICATION forming part of Letters Patent No. 617,468, dated January 10, 1899.

Application filed September 8, 1898. Serial No. 690,516. (No model.)

To all whom it may concern:

Be it known that I, AARON D. MILLER, a citizen of the United States, residing at Evansville, in the county of Vanderburg and 5 State of Indiana, have invented new and useful Improvements in Blind-Slat Tenons, of which the following is a specification.

My invention relates to blind-slats, and more particularly to tenons therefor, its object being to provide an extremely simple and cheap sheet-metal tenon adapted to be fastened of itself on a wooden slat and one which is so constructed that it may be applied to a slat to take the place of a tenon that has broken off without the necessity of taking apart the frame in which the slat is mounted.

The invention will be fully understood from the following description and claims when taken in conjunction with the annexed draw-

20 ings, in which—

Figure 1 is an elevation, partly in section, of a portion of a shutter-frame and slats therein equipped with my improved tenons. Fig. 2 comprises separate enlarged views of a portion of a slat and a tenon constructed in accordance with my invention. Fig. 3 is a plan view of the blank from which my improved tenon is formed.

Referring by letter to the said drawings, A 30 is a shutter-frame having the usual side bars a and sockets b in the inner sides of said bars

for the reception of slat-tenons.

B is a slat of rectangular form, and C designates my improved tenons, which are arranged at either end of the slats and journaled in the sockets b of the frame A, so as to enable the slats to freely rock in said frame.

The tenons are similar in construction, and therefore a description of the one shown in 40 detail in Figs. 2 and 3 will suffice for all. Said tenon is formed of the blank of sheet metal shown in Fig. 3, and comprises the tenon proper, c, made up of a circular end portion d and side portions e, bent at right angles to the end d, and also bent transversely into circular form with their longitudinal edges contiguous, and flat wings f, which form the terminals of the side portions e of the tenon proper, and are provided on their edges with angularly-disposed barbs g, as shown.

In practice the tenons are arranged at the

end of a slat, and the wings f are disposed on opposite sides of said slat, and their barbs gare embedded in the same, whereby it will be seen that the tenons are secured of them- 55 selves to the slat in a strong and durable manner. When a number of slats have been thus equipped at each end with my improved tenons, they are interposed between the side bars  $\alpha$  of a frame A, and the tenons are in- 60 serted in the sockets b of said bars a, after which the bars are joined to suitable crossbars (not shown) to form a shutter. This is the manner of applying my improved tenons to slats at the time that the shutter is 65 made, and it will be readily observed that while said tenons do not add materially to the cost of the shutter they are calculated to render the slats strong and durable and prolong the usefulness of the shutter as a whole. 70 The tenons are, however, designed more particularly to be applied to slats to take the place of tenons that have been broken off without the necessity of dismembering the frame A. In thus applying one of my im- 75 proved tenons to a slat from which a wooden tenon has broken off the end of the slat is made smooth, if necessary, and is moved laterally out of alinement with the contiguous socket in the frame-bar  $\alpha$ , after which my im- 80 proved tenon is inserted in said socket and the end of the slat is brought between the wings f of the tenon. After the slat is properly adjusted the barbs on the wings f are embedded in the slat, when the operation is 85 complete.

It will be appreciated from the foregoing that my improved tenons are extremely simple and cheap, are easily applied, and are adapted to securely hold a slat in a frame in 90 such manner as to enable it to freely rock on its axis. It will also be appreciated that the tenons may be readily applied without the employment of any tools other than a hammer, which is an important advantage.

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Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, the herein-described tenon for blind-slats; the 100 same being formed in one piece of sheet metal and comprising the tenon proper made up of

the circular end d, and the side portions e bent at right angles to said end and also bent transversely into circular form with their longitudinal edges contiguous, and the flat wings f forming the terminals of the portions e of the tenon proper and having angularly-disposed barbs on their edges, substantially as specified.

2. The combination with a wooden slat; of

2. The combination with a wooden stat; of a tenon formed in one piece of sheet metal and comprising the tenon proper made up of the circular end d, and the side portions e bent at right angles to said end and also bent transversely into circular form with their

longitudinal edges contiguous, and the flat 15 wings f forming the terminals of the portions e of the tenon proper and disposed at opposite sides of the slat and having angularly-disposed barbs embedded in said slat, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit-

nesses.

AARON D. MILLER.

Witnesses:
ELMER J. MILLER,
CHAS. R. HIATT.