

(No Model.)

G. N. JOSS.
SCREEN FRAME.

No. 277,135.

Patented May 8, 1883.

Fig. 1.

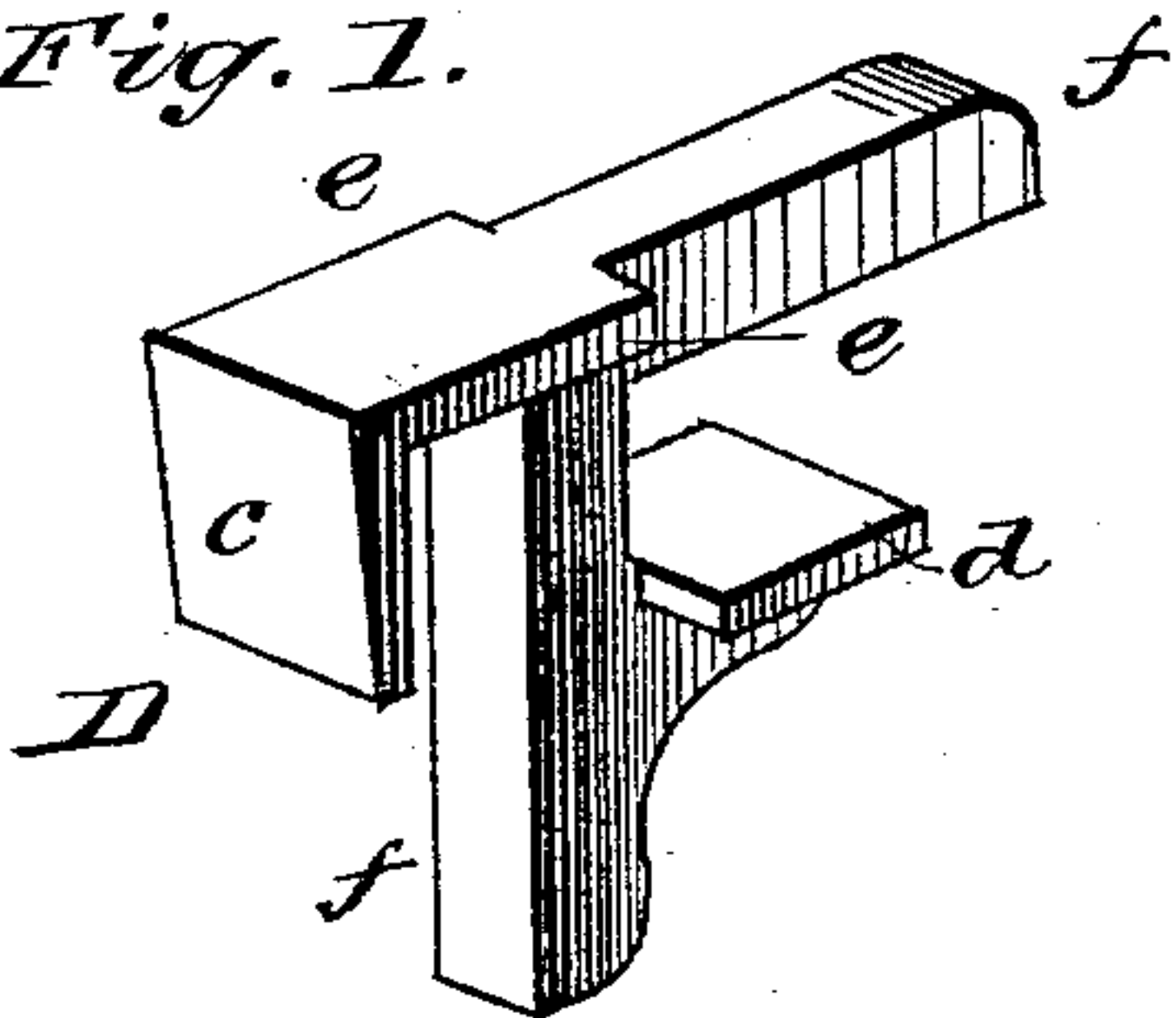


Fig. 2.

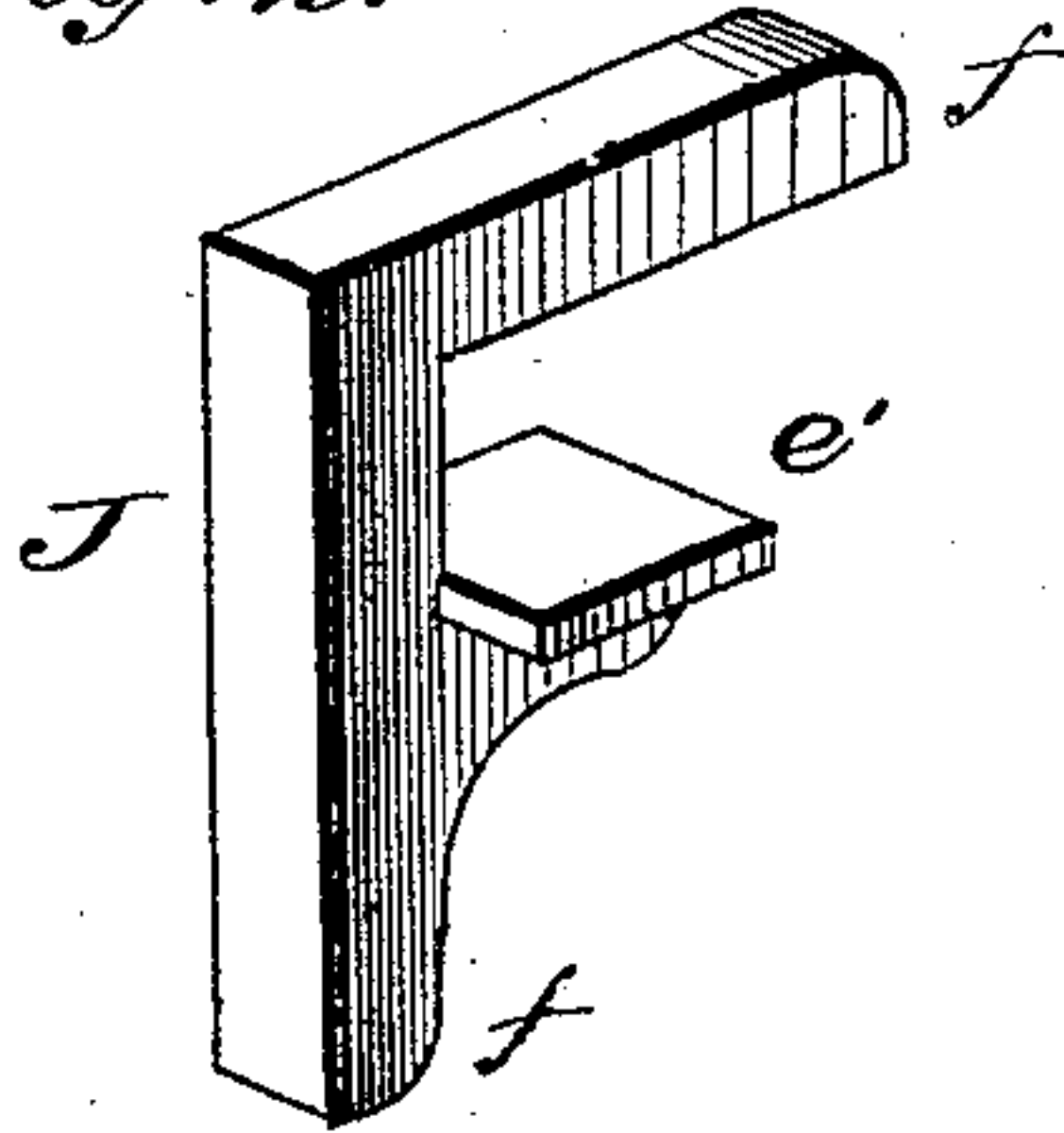
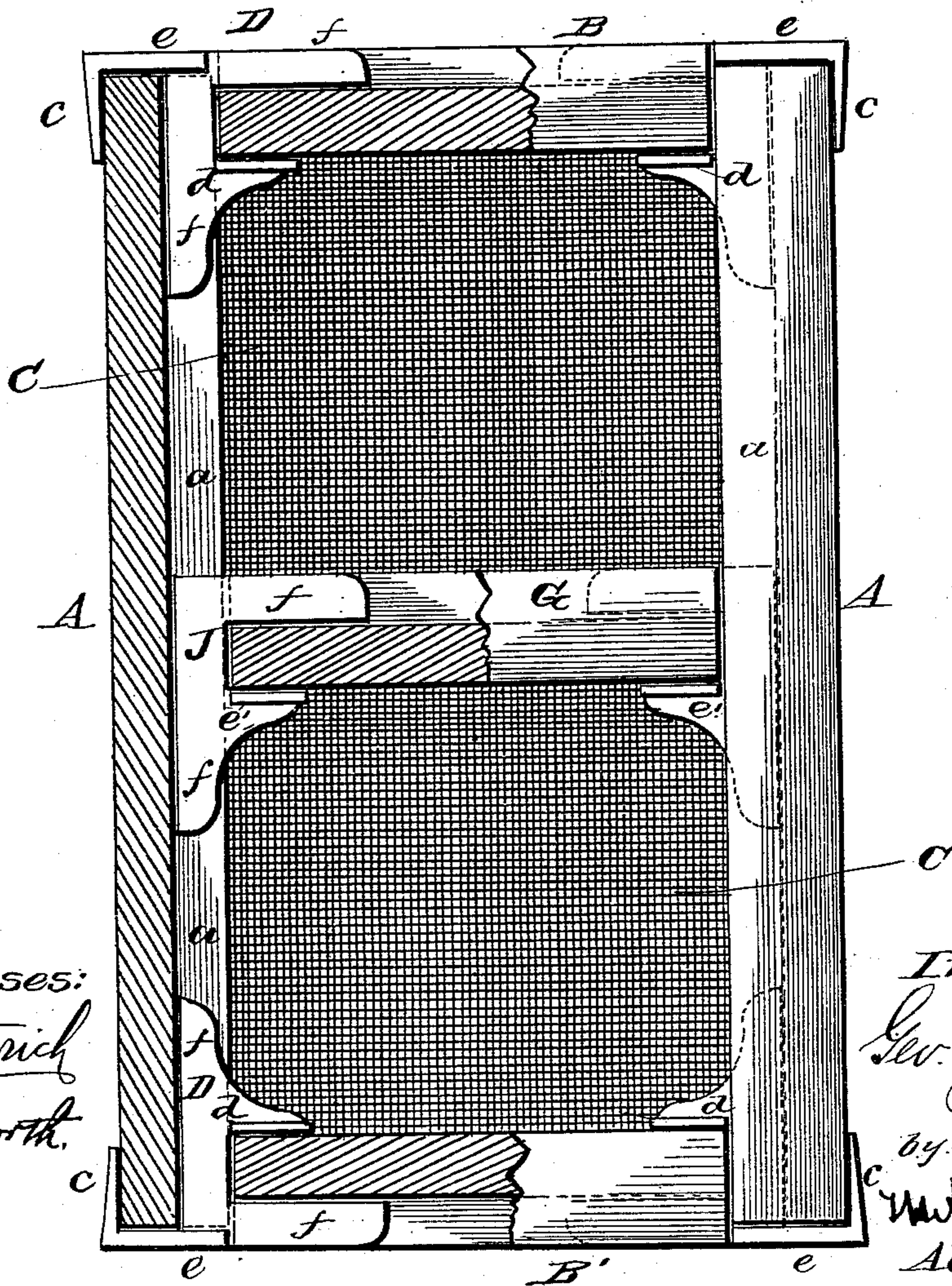


Fig. 3.



Witnesses:

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by

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UNITED STATES PATENT OFFICE.

GEORGE N. JOSS, OF NEW PHILADELPHIA, OHIO.

SCREEN-FRAME.

SPECIFICATION forming part of Letters Patent No. 277,135, dated May 8, 1883.

Application filed February 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE N. JOSS, of New Philadelphia, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Screen-Frames; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a perspective view of one of the corner-binders of the screen-frame. Fig. 2 is a perspective view of the attachment for one end of the bracing-bar. Fig. 3 is a front view of the screen-frame, showing a side in section and a side in front view.

My object is to unite the ends of wood strips in the manufacture of frames in a more secure and rigid manner than can be done by simple miter-joints and nails, as heretofore; and the nature of my invention consists in a cast-metal joint closer and binder, which will be fully understood from the following description, when taken in connection with the annexed-drawings.

My invention also consists in the combination, with a bracing-bar adapted to move vertically between the uprights of the screen-frame, of metal strengthening-pieces for the ends of said bracing-bar.

The following description and the annexed drawings will enable others skilled in the art to fully understand my invention.

A A designate the upright pieces of my improved screen-frame, having cross-pieces B at its ends. The ends of all the pieces are cut square, and the end pieces, B, are secured to the side pieces, A, by the metallic connections, so as to form an oblong rectangular frame. The inner edges of the upright pieces A A are grooved, as indicated at *a*. On one side of these uprights, and attached to one side of the frame, is a netting, C, which can be made of wire or other material. At each corner of the said rectangular frame is a metallic coupling for uniting the horizontal and vertical pieces together. Each coupling is constructed as follows:

D designates a rectangular frame, which is cast entire, and formed with an overlapping

lip, *c*, a foot-piece, *d*, and flanges *e e*. This coupling also has two tenon portions or extensions, *f f*, which are adapted to enter grooves formed in the frame-pieces; and it is also constructed with flanges which afford bearings for the inner faces of the joints. It will be seen that when the ends of the frame are united by means of the angular couplings the lip *c* will tie the vertical and horizontal strips together, the foot-piece *d* will afford a bearing or abutment for the cross-piece, and the right-angular tenons enter the grooves formed in the vertical and transverse pieces, while the flanges *e* will entirely cover the ends of the vertical strips. By means of these metal couplings the frame-pieces can be rigidly secured together without miter-joints, the ends of the transverse pieces being simply cut square off and abutted against the inner edges of the vertical strips.

G designates a cross bar or brace for stiffening the frame. One edge of this bar G is grooved, like the frame-pieces, and in these grooves, and also in the grooves of the uprights, are fitted tenons, which are rectangular metal pieces J, like the tenons of the couplings at the ends of the frame. These end pieces, J, have no flanges and overlapping lips; but they do have a foot-piece, *e'*, which, with the horizontal tenon portions, embraces the ends of the bar G.

It will be observed that the bar G can be adjusted at any desired point between the ends of the frame-pieces, and held in place by means of nails or screws passed through the wire-netting C.

While I have described my improved frame as especially adapted for screens, I do not confine myself to this use, as I contemplate using it for gates and other purposes.

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

1. A coupling for a screen or other frame, consisting of the rectangular tenon portions *f f*, overlapping lip *c*, foot-piece *d*, and flanges *e e*, constructed and adapted to operate substantially in the manner and for the purposes described.

2. A frame formed of grooved strips, united at their ends by means of rectangular metal

couplings formed of tenons, overlapping lips,
and foot - pieces, in combination with the
grooved cross - bar G, and angular tenons J,
formed with foot-pieces *e'*, secured to the said
5 frame, all constructed and adapted to operate
substantially in the manner and for the pur-
poses described.

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

GEORGE N. JOSS.

Witnesses:

LAWRENCE L. NEIBLING,
E. D. FEELE.