

No. 639,699.

Patented Dec. 26, 1899.

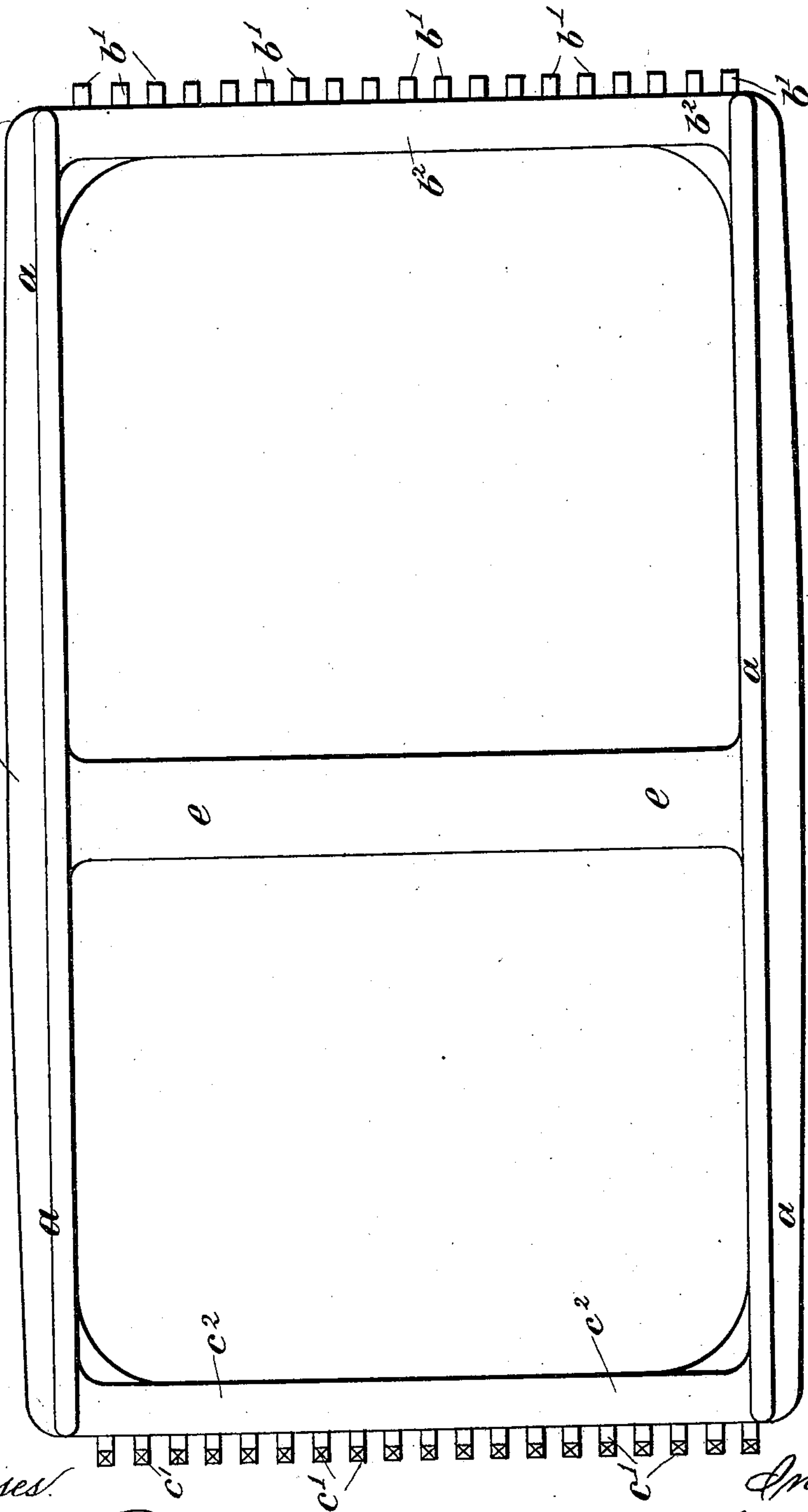
A. ADAMS.  
SCREEN OR SIEVE.

(Application filed Nov. 21, 1898.)

(No Model.)

5 Sheets—Sheet 1.

Fig. 1.



Witnesses.

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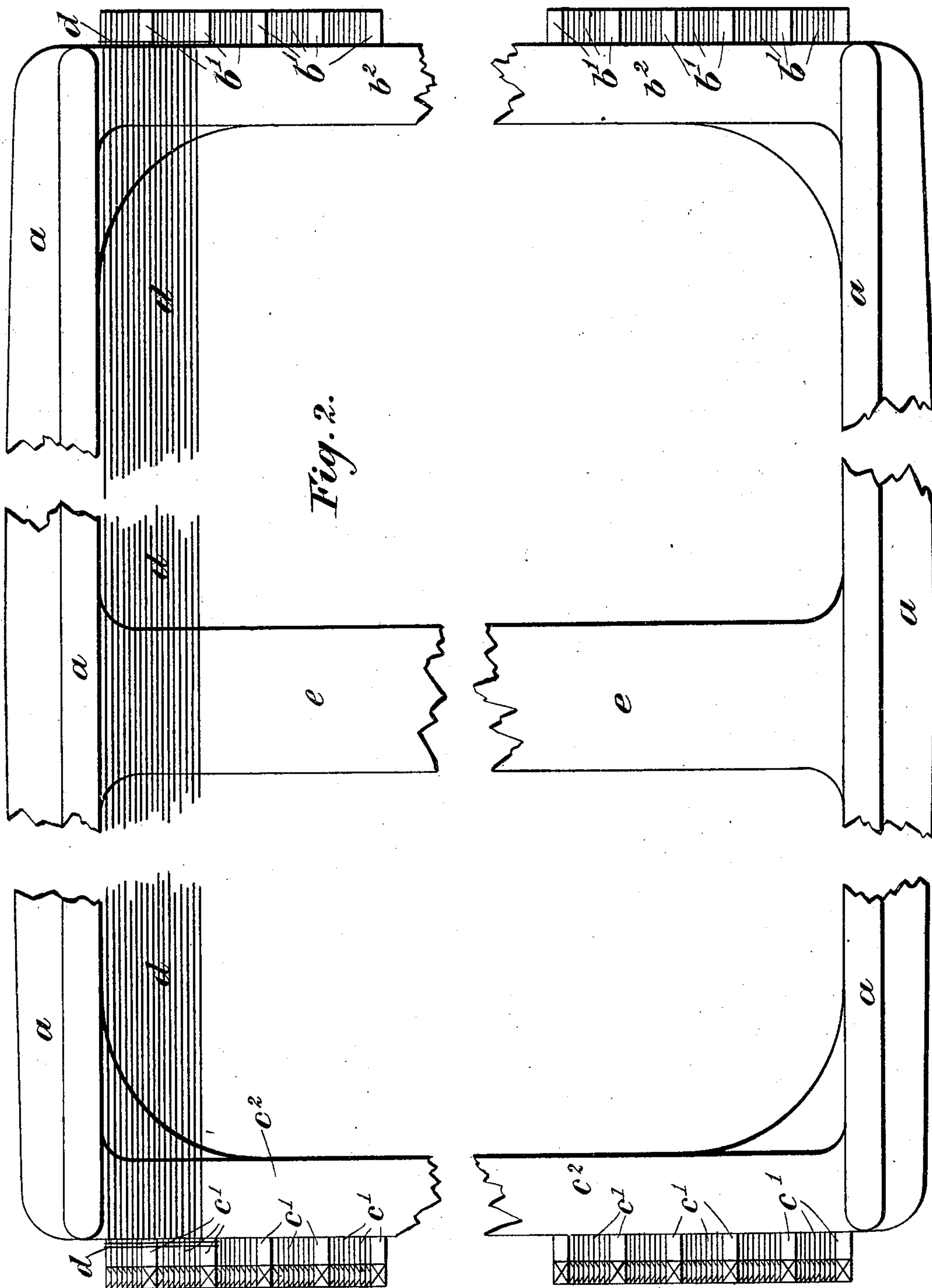
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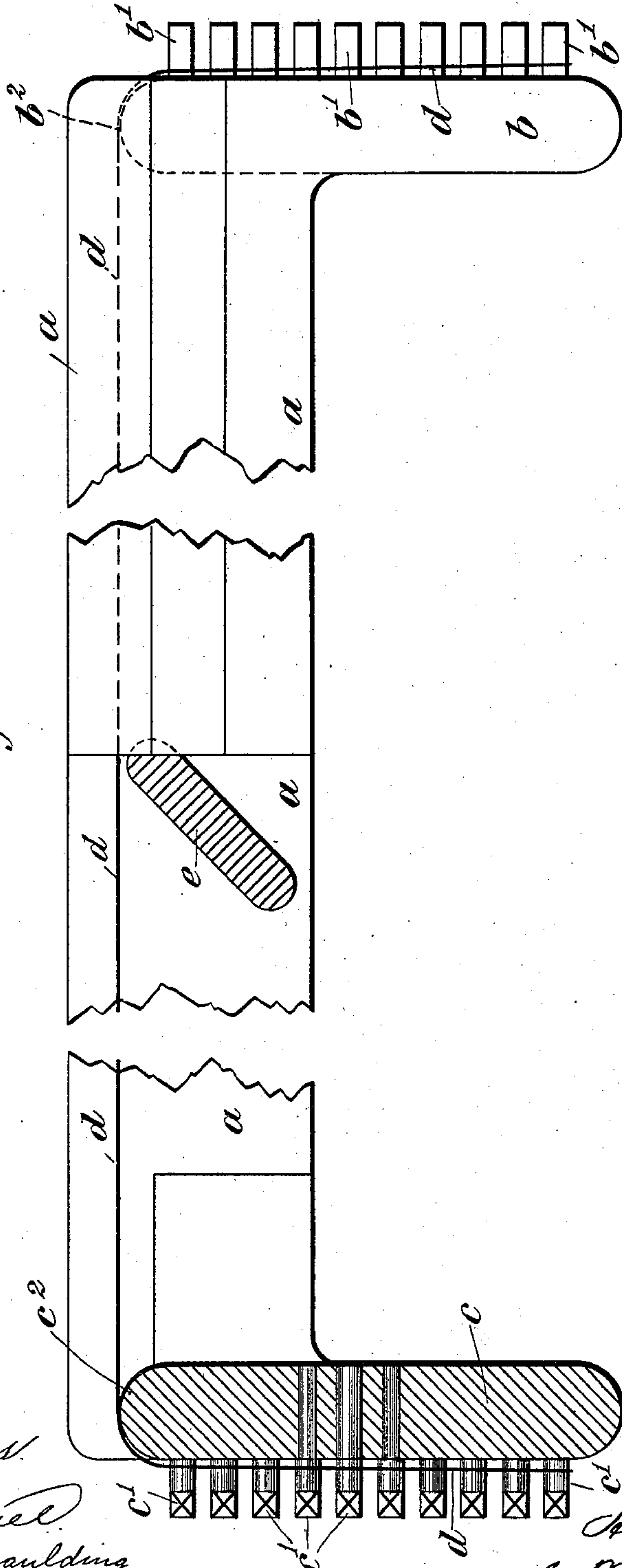
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Fig. 3.



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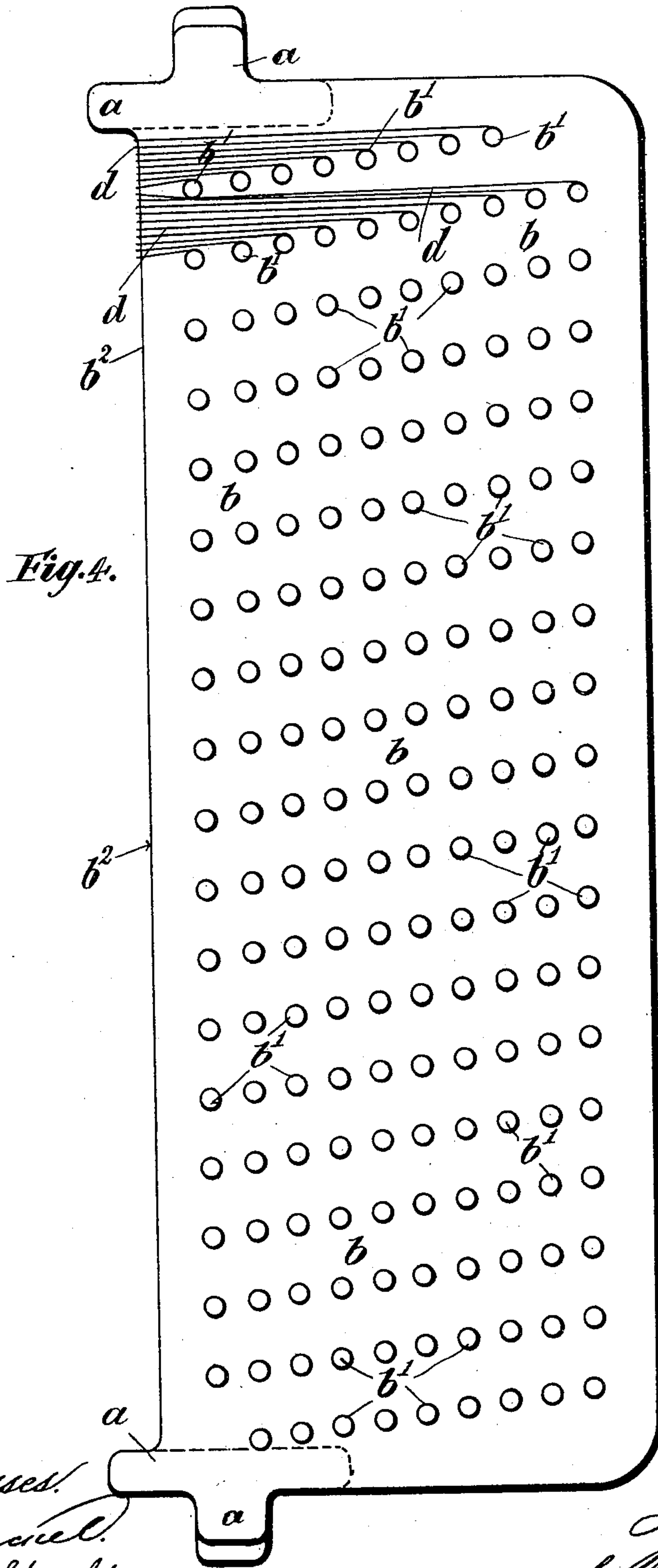
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5 Sheets—Sheet 4.

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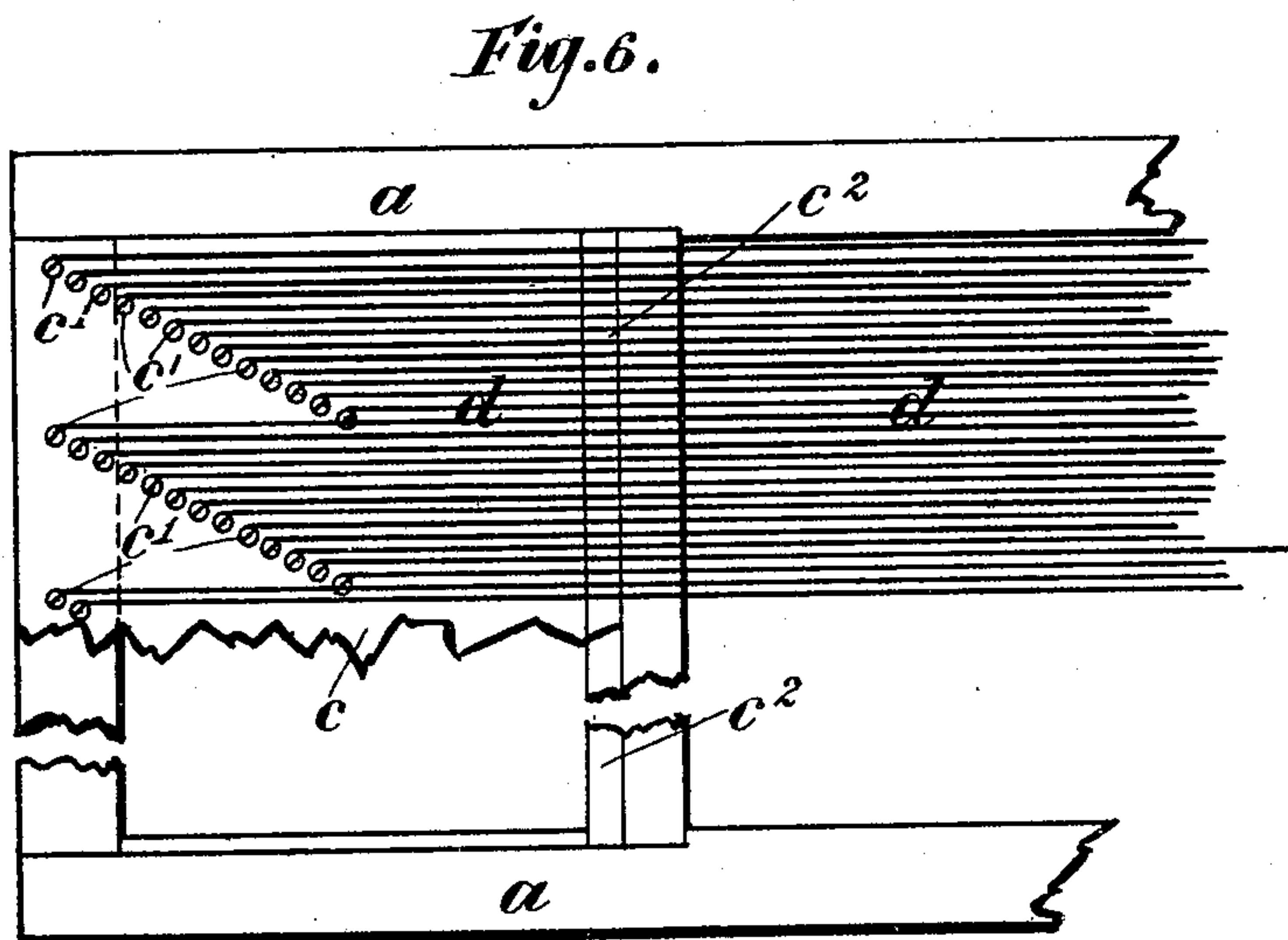
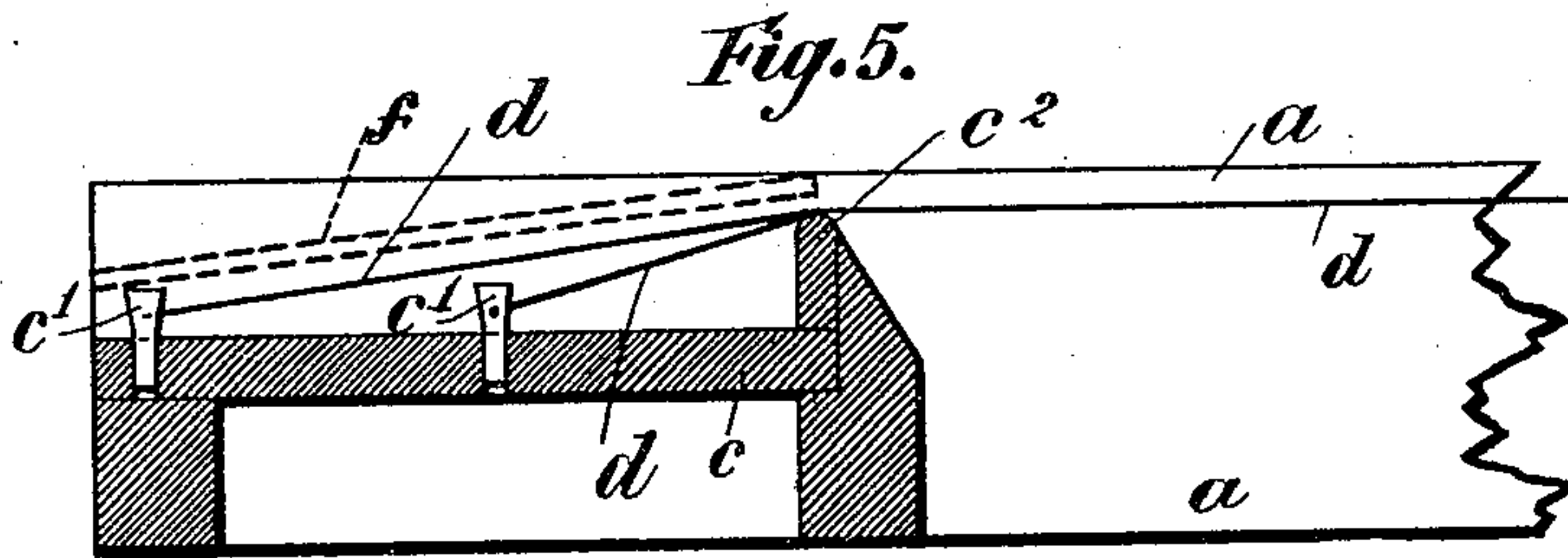
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5 Sheets—Sheet 5.



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# UNITED STATES PATENT OFFICE.

ADAM ADAMS, OF PETERBOROUGH, ENGLAND.

## SCREEN OR SIEVE.

SPECIFICATION forming part of Letters Patent No. 639,699, dated December 26, 1899.

Application filed November 21, 1898. Serial No. 697,004. (No model.)

*To all whom it may concern:*

Be it known that I, ADAM ADAMS, a subject of the Queen of Great Britain, residing at Old Fletton, Peterborough, in the county of Huntingdon, England, have invented an Improved Screen or Sieve, of which the following is a full, clear, and exact description, and for which I have made application for British Patent No. 11,233, dated May 17, 1898.

The invention consists of an improved screen or sieve so made that the vibration set up by the material passing over the wires keeps the screen clear without the aid of brushes or other mechanical contrivances to shake or rotate the screen or steam-heated pipes to heat the screen.

In carrying my invention into effect I employ a frame of any dimensions to suit the material to be screened, but I form it, preferably, rectangular. I construct this frame of such strength that its two ends shall be of similar character and strength to a pianoforte wrest-plank and hitch-pin plate or plank. In these ends pins are fastened at suitable distances from each other to obtain any degree of fineness of material required. Steel wire, preferably piano-wire, of suitable gage is stretched on these pins and tightened up with a key or wrench to the required tension in a similar manner to pianoforte-wires. This screen is extremely simple in construction, is a fixture, clogs less than other screens, requires little attention, and is very easily and quickly repaired.

My invention is represented in the accompanying drawings, in which—

Figure 1 is a plan view of the frame of a screen with its hitch-pins and wrest-pins, but without the wires. Fig. 2 is a plan of the same drawn to a larger scale, but having some parts broken away and showing some of the wires. Fig. 3 is a longitudinal elevation and semisection, and Fig. 4 is an end view, of Fig. 2. Fig. 5 is a longitudinal section, and Fig. 6 is a plan, of one end of a screen, showing a slight modification.

Similar letters of reference indicate like parts throughout the drawings.

*a a* represent the side bars of the screen; *b*, the hitch-pin plank or plate; *c*, the wrest-plank forming the ends of the screen-frame; *b'*, the hitch-pins; *c'*, the wrest-pins, and

*d* the wires. The wires *d* are hitched over or attached to the hitch-pins *b'*. They then pass over the upper edge or bridge *b<sup>2</sup>* of the hitch-pin plank or plate to the other end of the screen-frame, where they pass over the upper edge or bridge *c<sup>2</sup>* of the wrest-plank *c*, and down to the wrest-pins *c'*, to which they are secured in the known manner and by which, aided by a suitable key, they may be tightened to the required degree of tension.

*e* is a central cross-bar which serves to stiffen the framework of the screen and also protects the wires from breakage in case they are at any time subject to any accidental blow. This bar does not touch the wires while the screen is in ordinary use, and so the vibration is not affected.

In the modification shown in Figs. 5 and 6 the wrest and hitch pin planks instead of being fixed at right angles to the side bars are in a plane parallel therewith, as shown with respect to the wrest-plank. In this latter arrangement the hitch-pin plank or plate and the wrest plank and pins are covered with a removable board or metal plate *f*, as shown by dotted lines.

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

1. A screen or sieve, having a strong frame, one end of which is provided with a hitch-pin plank or plate, having hitch-pins inserted therein, and the other end provided with a wrest-plank containing wrest-pins, wires attached to said hitch-pins and wrest-pins, and capable of being tightened up by said wrest-pins, and a transverse bar in close proximity to but not touching the wires and thereby admitting a free vibration of the wires in use, substantially as described.

2. A screen or sieve, having a strong frame, the ends of which are made of planks arranged parallel to each other, one such plank having hitch-pins and the other wrest-pins arranged therein, wires attached to said hitch-pins and wrest-pins and capable of being tightened by said wrest-pins, a transverse bar arranged in said frame beneath the wires and sufficiently removed therefrom to admit of vibration of the wires in use, and bridges interposed between the hitch-pins and wrest-pins and the transverse bar and over which the wires are stretched, substantially as described.



3. A screen or sieve, having a frame consisting of two side bars and two parallel planks, one of said planks having hitch-pins and the other wrest-pins inserted therein,  
5 separate wires attached to said hitch-pins and wrest-pins, and capable of being tightened by said wrest-pins, and a central cross-bar connecting the two side bars and arranged out of  
10 contact with the wires to permit their vibration in use and thereby facilitate the screen-

ing action and keep the screen clear without the aid of extraneous devices, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ADAM ADAMS.

Witnesses:

ARTHUR HILL,  
PERCY FRED ROSE.