

No. 610,457.

Patented Sept. 6, 1898.

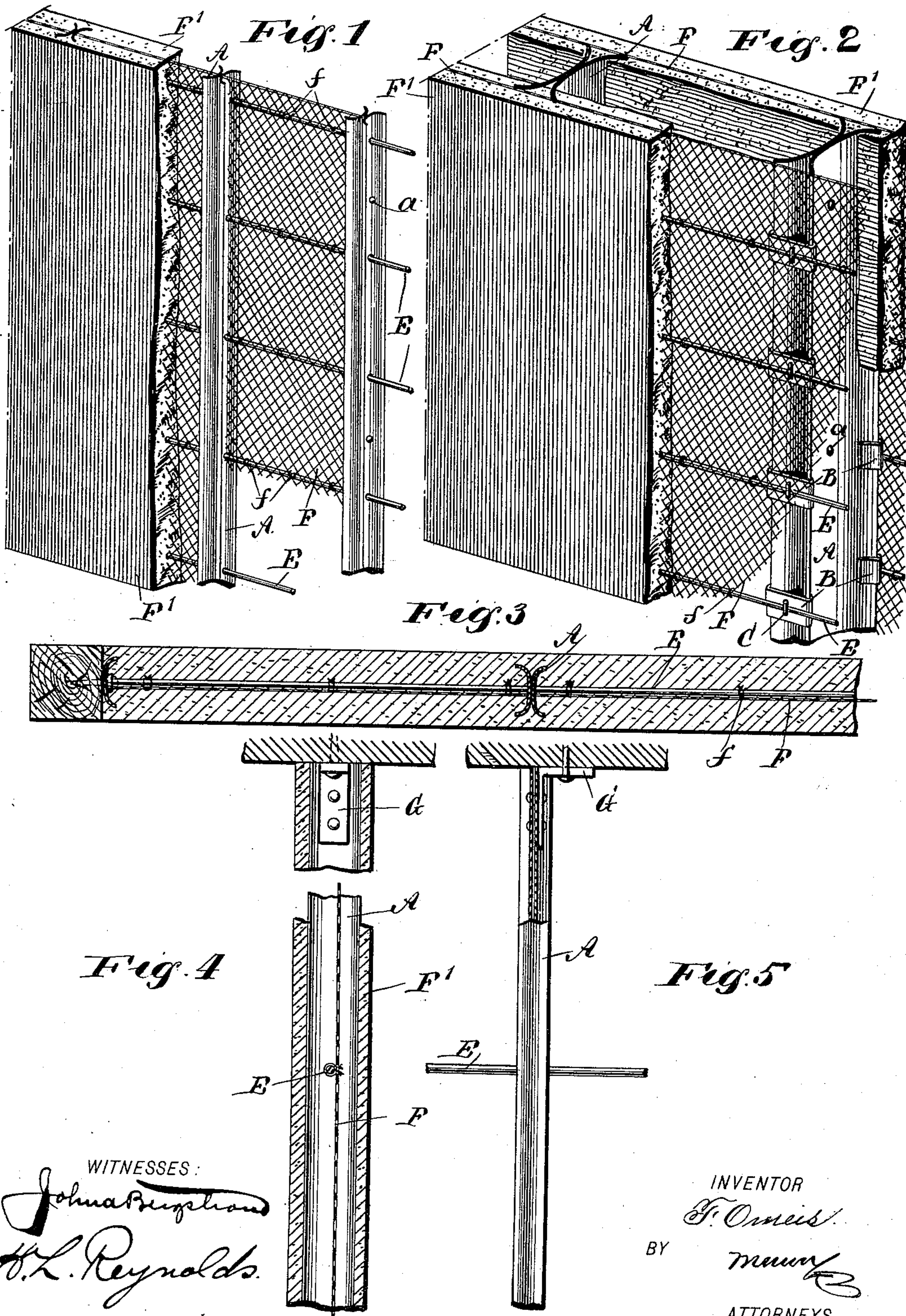
F. OMEIS.

FIREPROOF CONSTRUCTION FOR PARTITIONS AND WALLS.

(Application filed Jan. 20, 1898.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:
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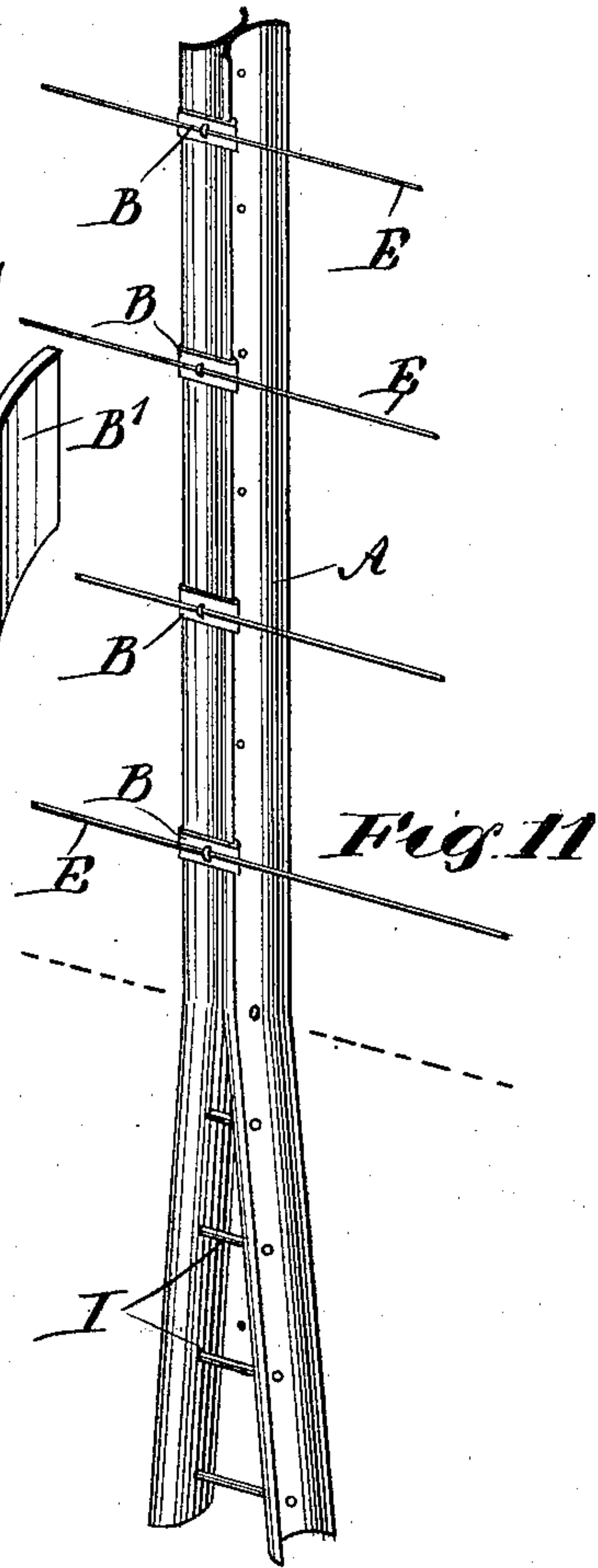
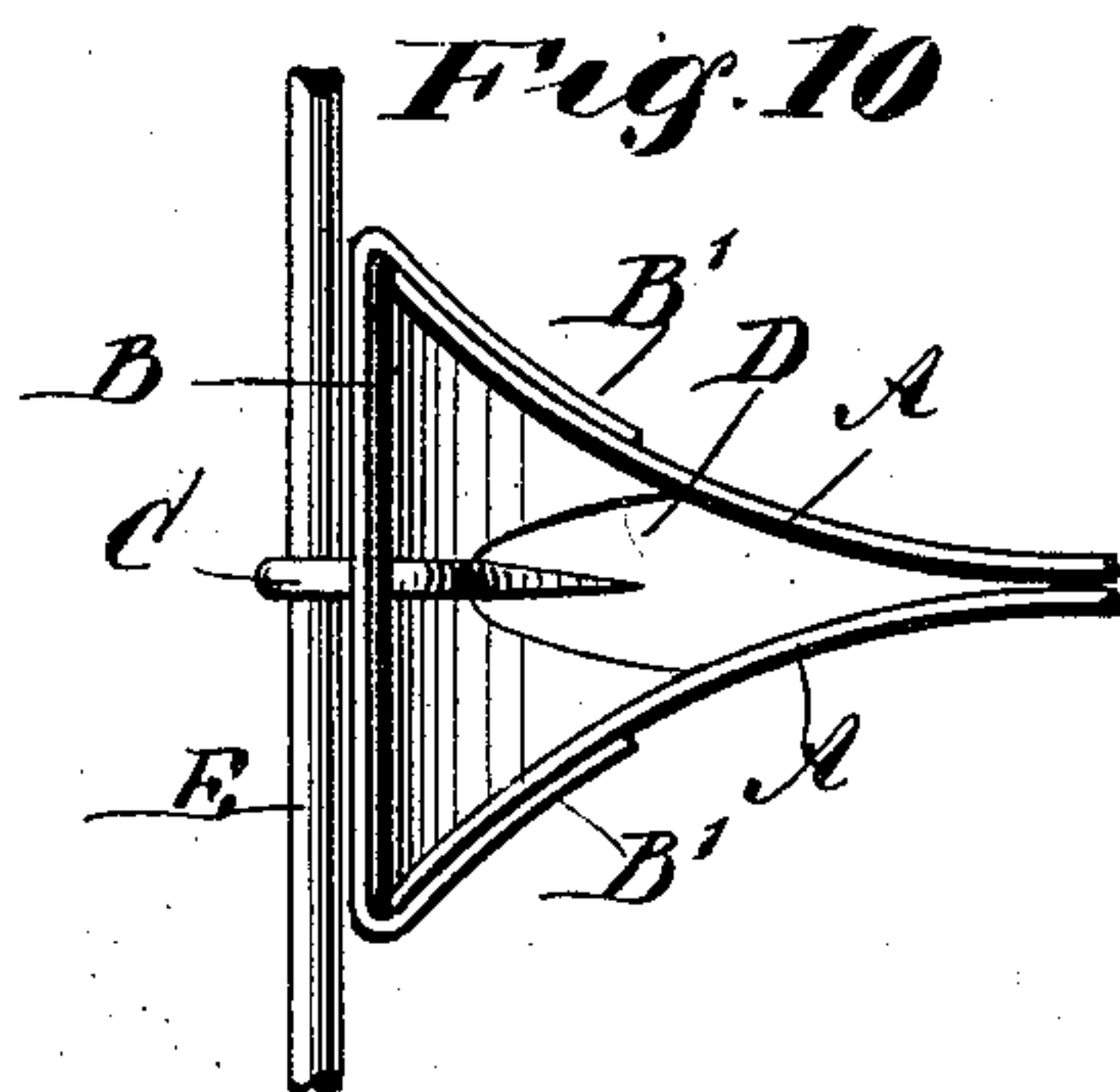
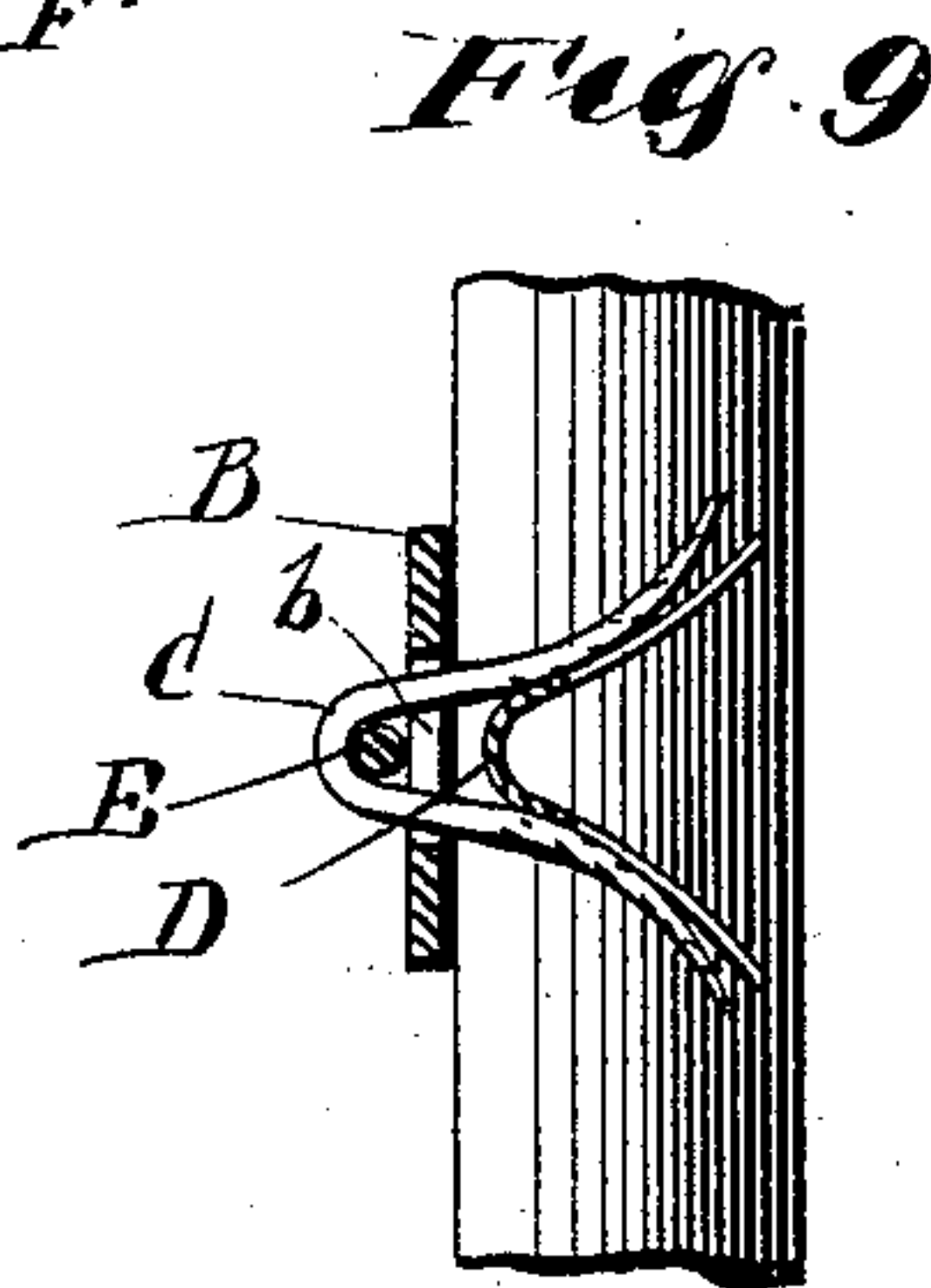
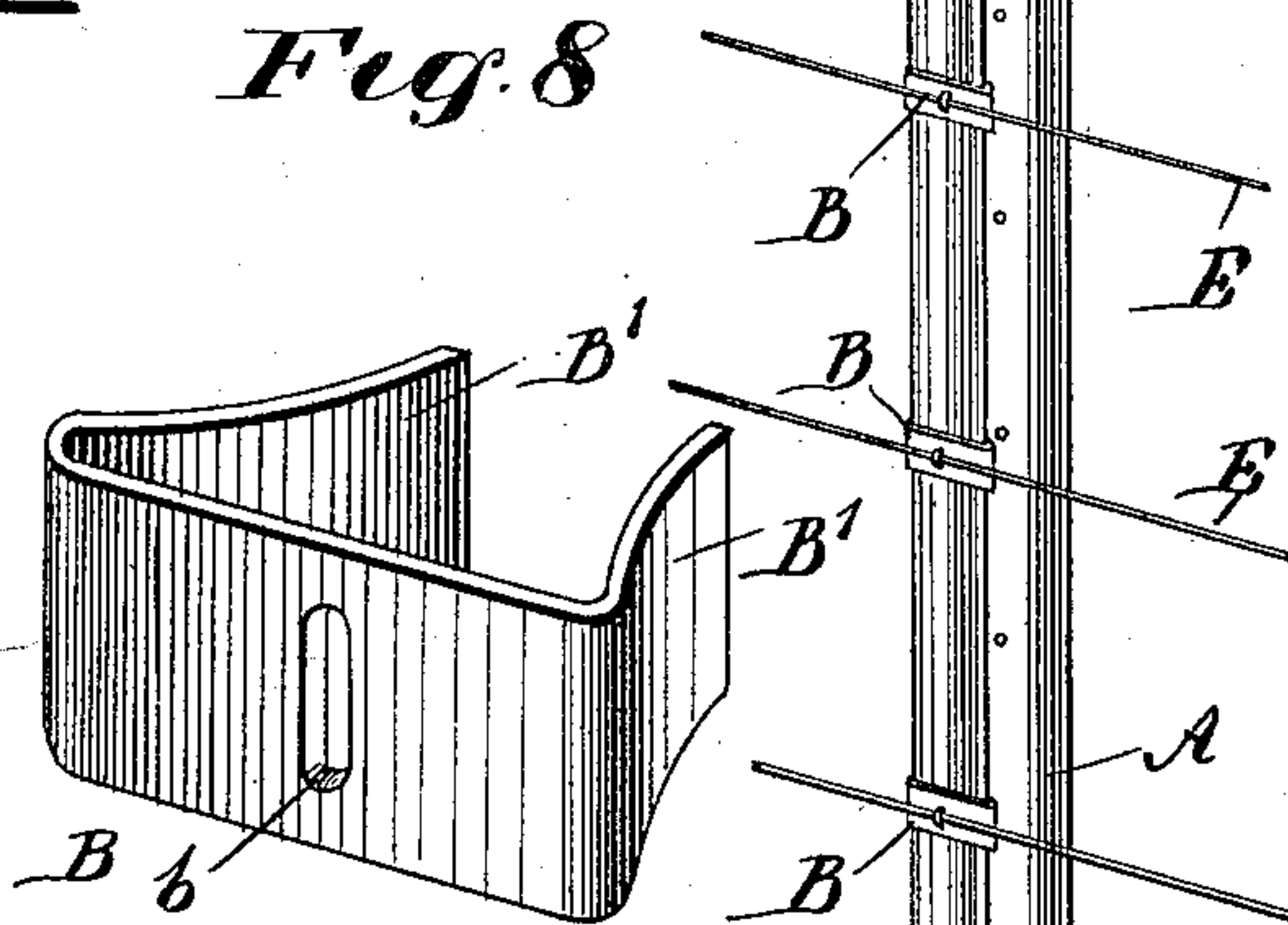
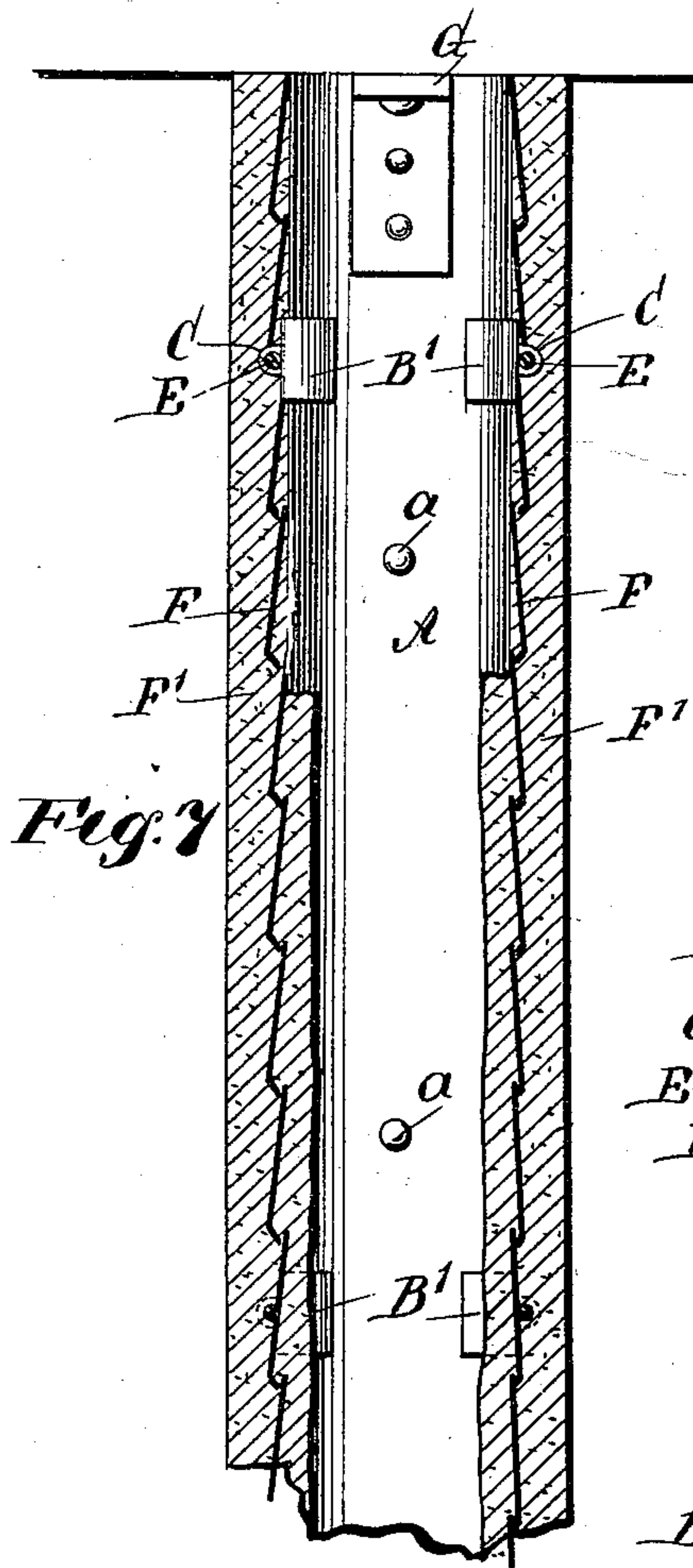
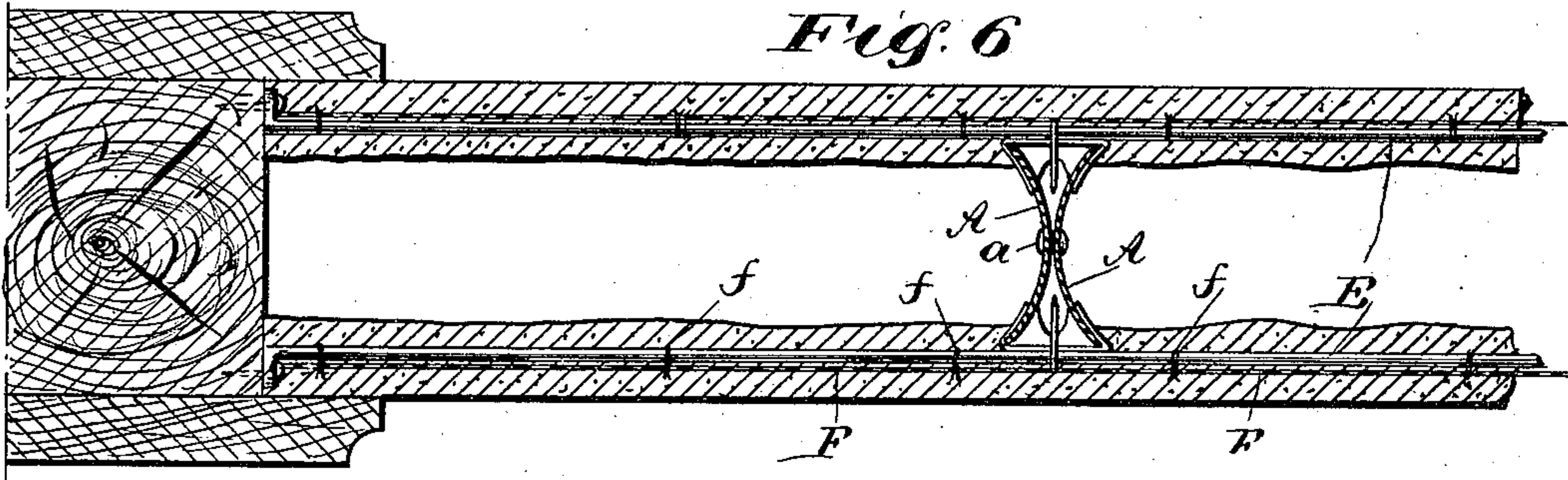
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(No Model.)

2 Sheets—Sheet 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANCIS OMEIS, OF CHARLESTON, SOUTH CAROLINA.

FIREPROOF CONSTRUCTION FOR PARTITIONS AND WALLS.

SPECIFICATION forming part of Letters Patent No. 610,457, dated September 6, 1898.

Application filed January 20, 1898. Serial No. 667,302. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS OMEIS, of Charleston, in the county of Charleston and State of South Carolina, have invented new and useful Improvements in Fireproof Constructions for Partitions and Walls, of which the following is a full, clear, and exact description.

My invention relates to an improvement in the construction of fireproof partitions and walls and to the means for securing lateral wires to beams; and it consists of certain improvements, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view, partially in section, showing my improved construction as applied to a thin partition. Fig. 2 is a perspective view of the same sort, showing the construction as applied to a thick partition or one having a central air-space. Fig. 3 is a horizontal section of the construction shown in Fig. 1. Fig. 4 is a vertical section of the same construction, taken upon the line of one side surface of the beam. Fig. 5 is an elevation, partially in section, of one of the studding-beams, showing its method of attachment at top and bottom. Fig. 6 is a horizontal section of the hollow partition shown in Fig. 2. Fig. 7 is a vertical cross-section of the same. Fig. 8 is a perspective view of the clamping-plate used for securing the lateral wires to the studding-beams. Fig. 9 is a sectional elevation through the clamping-plate, showing a part of the beam. Fig. 10 is a top plan view showing the clamping-plate and the wire secured thereby, and Fig. 11 is a perspective view showing said clamping means used in connection with the beam as a fence-post.

The object of my invention is the production of an economical, strong, and quickly-constructed fireproof partition which may be made solid and of little thickness or hollow and of considerable thickness.

The beam A, used as a studding-beam, consists of two plates of metal, which are curved and united to each other by rivets *a*, joining the central portion of the convex sides of the

plates, thus forming a beam which bears in cross-section a resemblance to the letter X, the arms thereof being curved instead of straight. This beam A is used as studding and secured at top and bottom to the floor-beams or any suitable beams by means of angle bars or plates G, which are riveted to the central web of the studding-beam and also to the floor and ceiling beams.

In constructing the solid partition, such as shown in Figs. 1 and 3, the studding-beams are provided with a series of holes through their central web, and through these holes are passed lateral rods or wires E. These rods or wires are secured at their ends to one of the beams. Upon these wires are secured sections of a plaster-supporting web F. This web may be of woven wire, of stamped sheet metal, or any of the forms commonly used for such purposes. This web is secured to the wires E by means of short loops *f* of wire, which bind the two together. When the skeleton of the partition has been thus formed, it is covered with the plaster F', which is built out until it entirely incloses the edges of the beams A. These beams may be placed close together, and being placed with their edges extending laterally of the partition will give it great stiffness and enable the partition to be made of very little thickness and be strong and stiff.

Where it is desired to build the partition hollow, and consequently of greater thickness, the construction shown in Fig. 2 is adopted. In this case the wires E are secured to the edges of the beams by means of the clamping device shown in detail in Figs. 8, 9, and 10. This device consists of a plate B, of metal, which is provided with a laterally-extending slot *b* at the middle of its length. This plate is placed so as to extend across the diverging edges or webs of the beam A and has its ends B' bent over the edges of the beams, so as to be held securely in place thereon. Beneath the plate B is placed a spreading-block D, which is adapted to engage the ends of staples C and spread them, so that it cannot be pulled out through the slot in the plate B. This staple C is made of wire and with its ends close enough together that it may be inserted in the slot *b*. The wire E is held in place and the staple C placed so as to span the wire and

with its ends in the slot *b*. It is then driven through the slot, where its ends engage the sloping surfaces of the block *D* and are thereby spread apart, so that the block cannot be
5 pulled out of the slot in the plate *B*. This forms a cheap and efficient attachment for the wires. After the wires have been secured in place upon each side of the beams *A* the plaster-supporting web *F* is secured in place,
10 as previously described. The plaster being then applied forms a double or hollow partition, as shown in Figs. 2, 6, and 7.

The wire-securing device and the post *A* may be used for other purposes than forming
15 a partition, as shown. One such use for these parts is shown in Fig. 11, where the beam *A* is used as a fence-post and the fence-wires *E* are secured thereto by means of the clamping device described. Where the beam is
20 used for this purpose, it is preferred that the lower ends of the plates forming the beam be separated, as shown in the drawings. These ends may be retained at the proper position by means of the connecting-rods *I*.

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

1. The combination of a beam having divergent webs, with a wire clamping or securing
30 ing device, comprising a plate or bar extending laterally across the face of said webs with its ends bent over the outer edges of the webs, said bar or plate having a slot extending laterally across its center, and a staple adapted
35 to enter said slot and secure the wire to the plate by bending the inner ends of the staple to one side, substantially as described.

2. The combination of a beam having divergent webs, with a wire clamping or securing
40 ing device, comprising a bar extending laterally across the face of the webs and having its ends bent over the edges of the webs, said bar having a slot extending laterally across its center, a staple adapted to enter said slot
45 and to secure the wire to the plate, and an expanding-block between the webs and beneath the plate adapted to expand the sides

of the staple to hold it in place, substantially as described.

3. A fireproof-partition construction, comprising studding-beams having diverging webs with their edges toward the sides of the partition, clamps each comprising a bar extending laterally across said webs, with its ends bent over their edges and having a slot
55 at its center, a staple entering said slot and adapted to have its ends bent sidewise, wires beneath the loops of said staples and extending between the beams, and a plaster-retaining web secured to said wires, substantially
60 as described.

4. A fireproof-partition construction, comprising studding-beams having diverging webs with their edges toward the sides of the partition, wire-securing clamps each comprising
65 a plate extending laterally across said webs, with its ends bent over their edges and having a slot at its center, a staple entering said slot, a block adapted to fit between the diverging webs and having sloping surfaces
70 adapted to engage and spread the sides of the staple when driven through the slot, wires beneath the loops of said staples and extending between the beams, and a plaster-retaining web secured to said wires, substantially
75 as described.

5. A fireproof-partition construction, comprising beams formed of curved plates united with their convex sides toward each other, wire-holding clamps comprising a plate
80 extending laterally across the edges of the beam and with its ends bent over the edges of the beam, said clamp-plates having a central slot, staples adapted to enter said slots and to have their ends bent to one side, wires extending
85 laterally across the faces of the beams and beneath said staples, and a plaster-retaining web fixed to said wires, substantially as described.

FRANCIS OMEIS.

Witnesses:

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