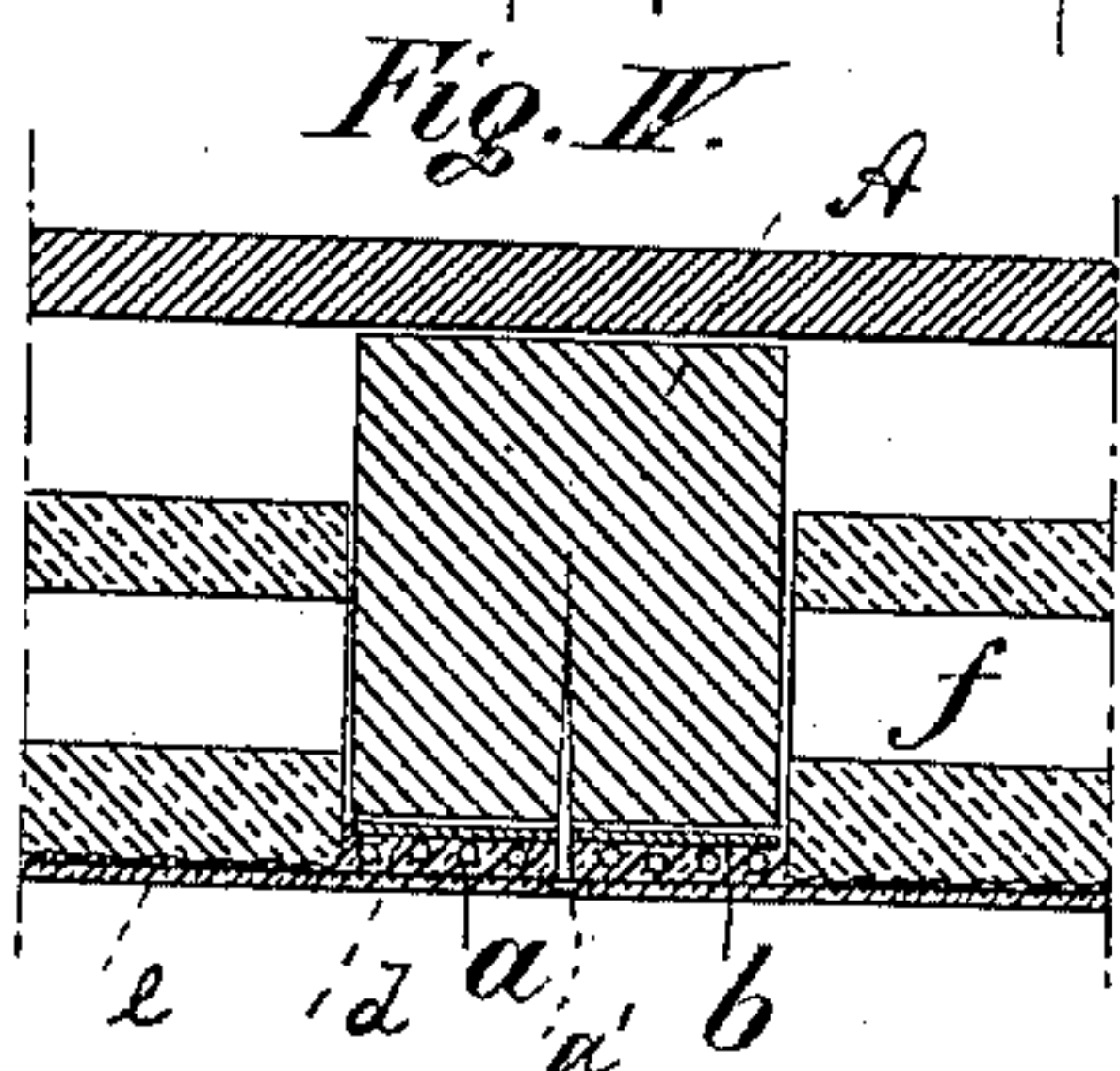
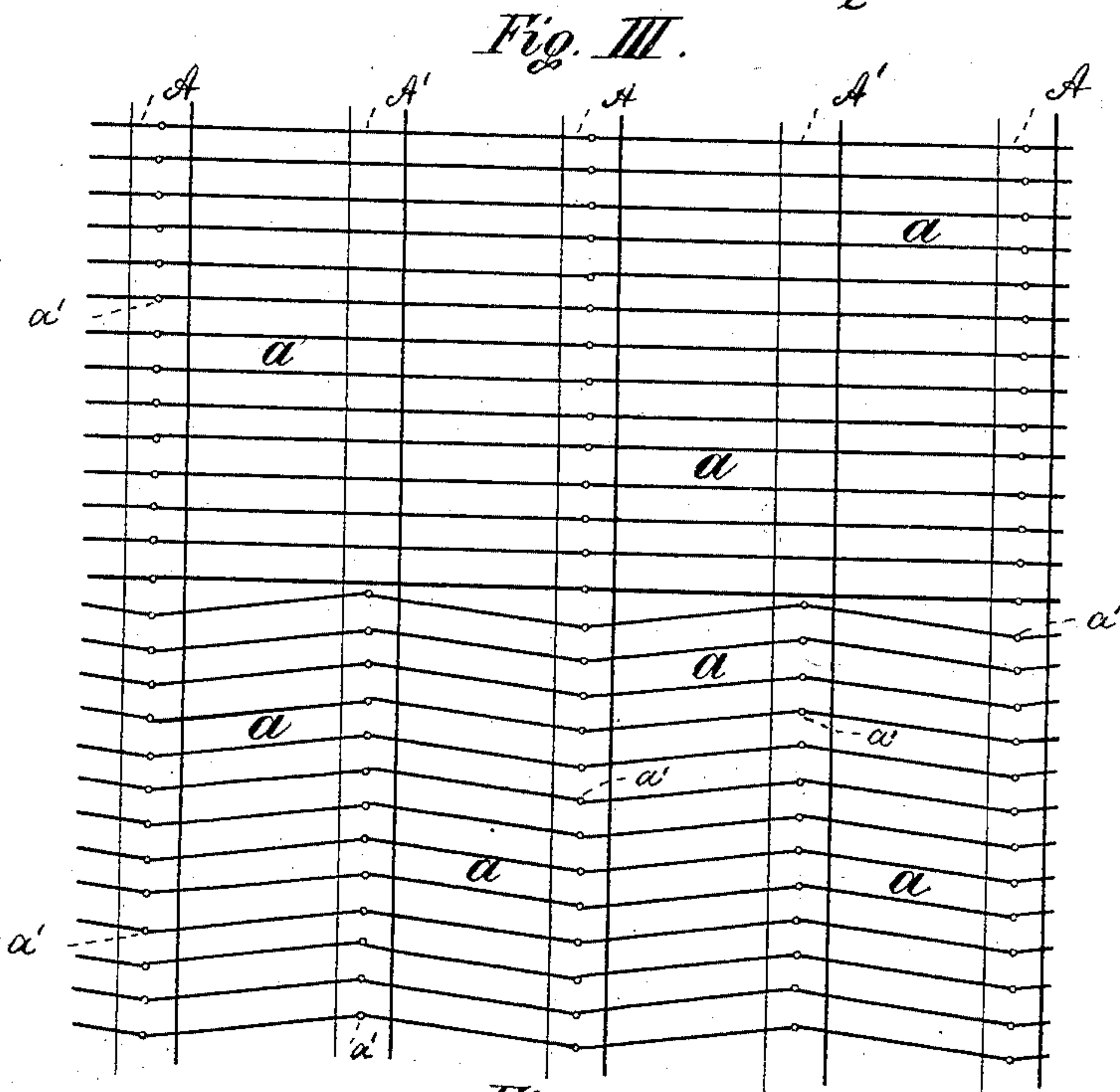
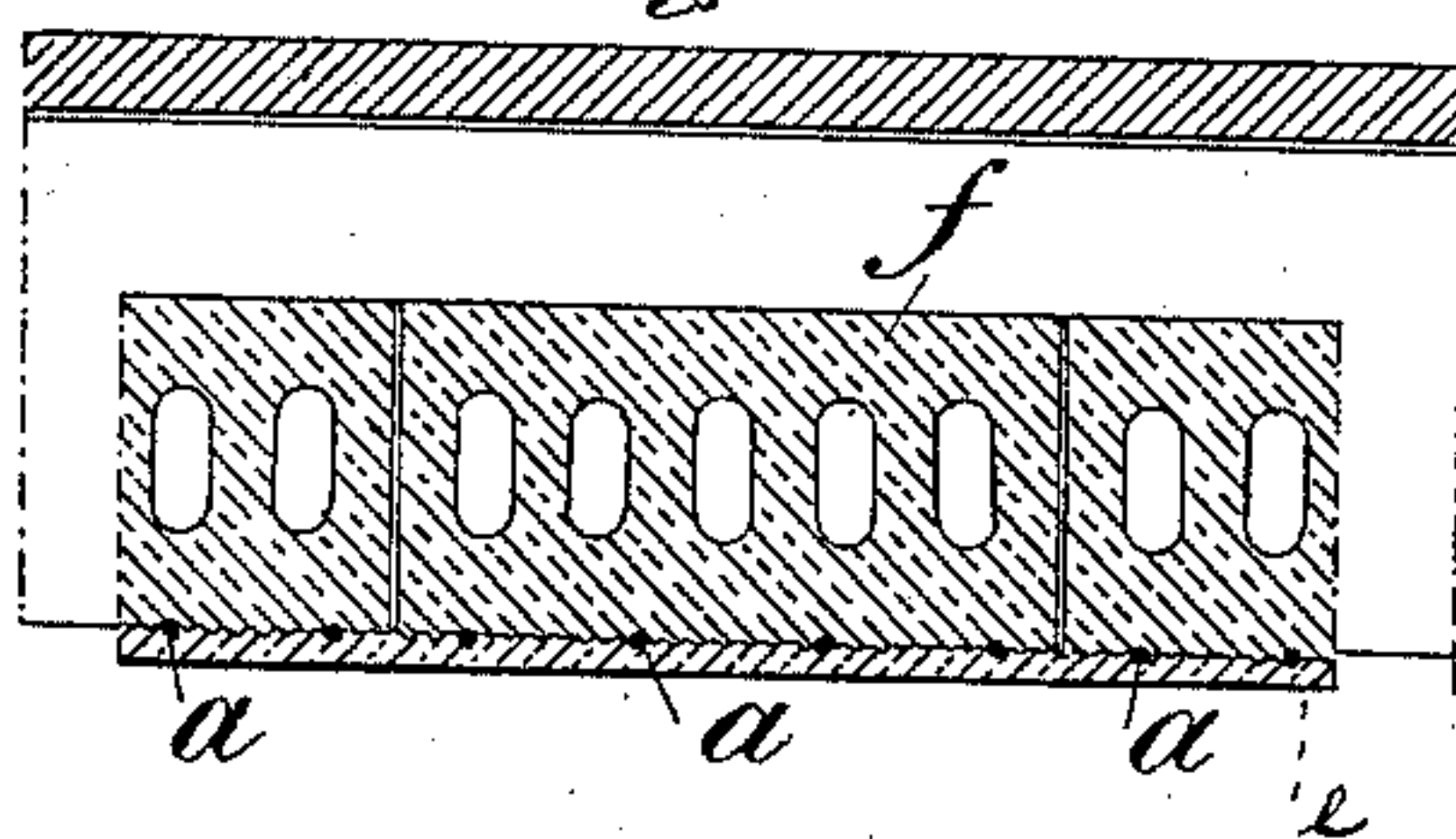
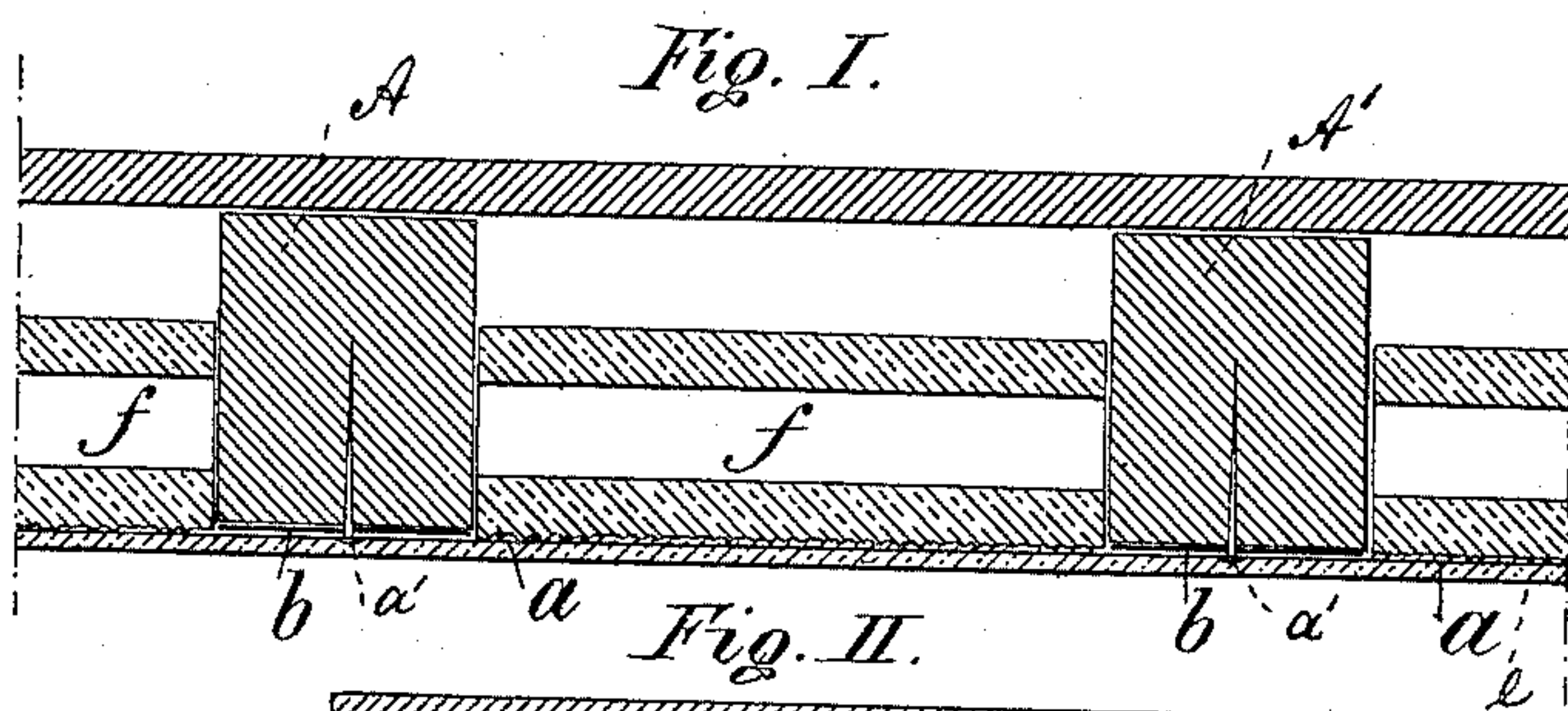


(No Model.)

A. KATZ.  
CEILING.

No. 418,336.

Patented Dec. 31, 1889.



Witnesses:  
Wm. Wagner  
A. Goughmanis.

Inventor:  
A. Katz  
per Roeder & Briesew  
attorneys

# UNITED STATES PATENT OFFICE.

ADOLF KATZ, OF STUTTGART, WÜRTENBERG, GERMANY.

## CEILING.

SPECIFICATION forming part of Letters Patent No. 418,336, dated December 31, 1889.

Application filed June 25, 1889. Serial No. 315,539. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLF KATZ, of Stuttgart, Würtemberg, Germany, have invented an Improvement in Ceilings, of which the following is a specification.

This invention relates to an improved ceiling in which tiles or a similar filling material is supported upon wires which are stretched taut by being bent into zigzag shape.

10 The invention consists in the various features of improvement more fully pointed out in the claims.

In the accompanying drawings, Figure I is a longitudinal vertical section of my improved ceiling. Fig. II is a vertical cross-section thereof; Fig. III, a bottom view thereof, without the finish; and Fig. IV, a longitudinal section through portion thereof, showing an intermediate layer of cane beneath the beams.

20 The letters A A' represent alternate beams of a ceiling. To the lower faces of these beams there are secured the asphaltum layers *b*, with the rough side down.

25 *a a* are a series of wires stretched across beams A A' and secured to the alternate beams A by nails or hooks *a'*. Next the wires *a* are stretched taut between the beams A, so as to assume a zigzag shape, as shown in the lower half of Fig. III. The apexes or angles

thus formed are secured to the beams A' by 30 similar hooks or nails *a'*.

After the wires are properly stretched hollow tiles or a similar filling material is placed upon them between beams A A'. The joints or openings around the tiles are packed in 35 suitable manner and the usual finish *e* is applied to the wires, when the ceiling will be completed.

In Fig. IV a layer of woven cane *d* is interposed under the beams, between the asphaltum *b* and the finish *e*. 40

What I claim is—

1. The combination of beams A A' with the stretched zigzag wires *a a*, secured to the beams, and with tiles *f*, supported upon the 45 wires, substantially as specified.

2. The combination of beams A A' with the asphaltum sheets *b*, secured to the lower face of the beams, and with stretched zigzag wires *a a* and the superposed tiles *f*, substantially 50 as specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ADOLF KATZ.

Witnesses:

C. GUNZENHAUFER,  
ADELBERT F. CADES.