

No. 640,294.

Patented Jan. 2, 1900.

J. W. MACY.

PIANOFORTE.

(Application filed Sept. 14, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 2.

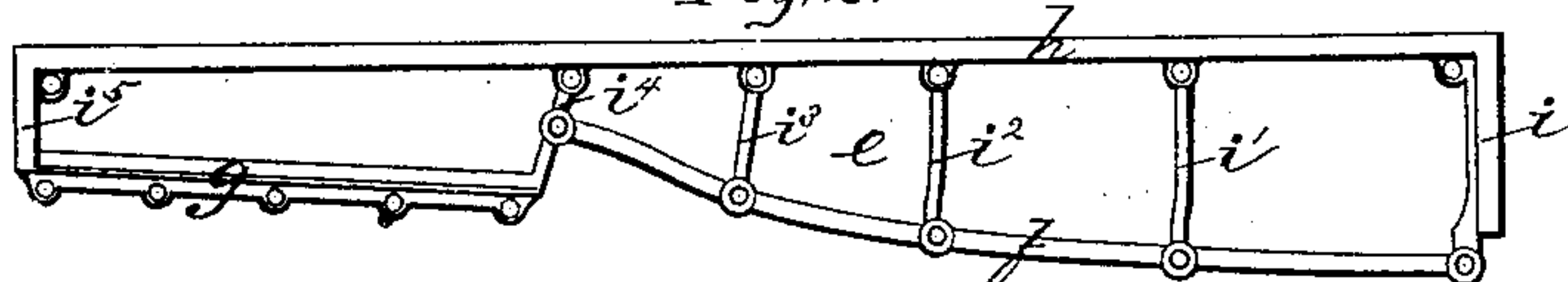


Fig. 1.

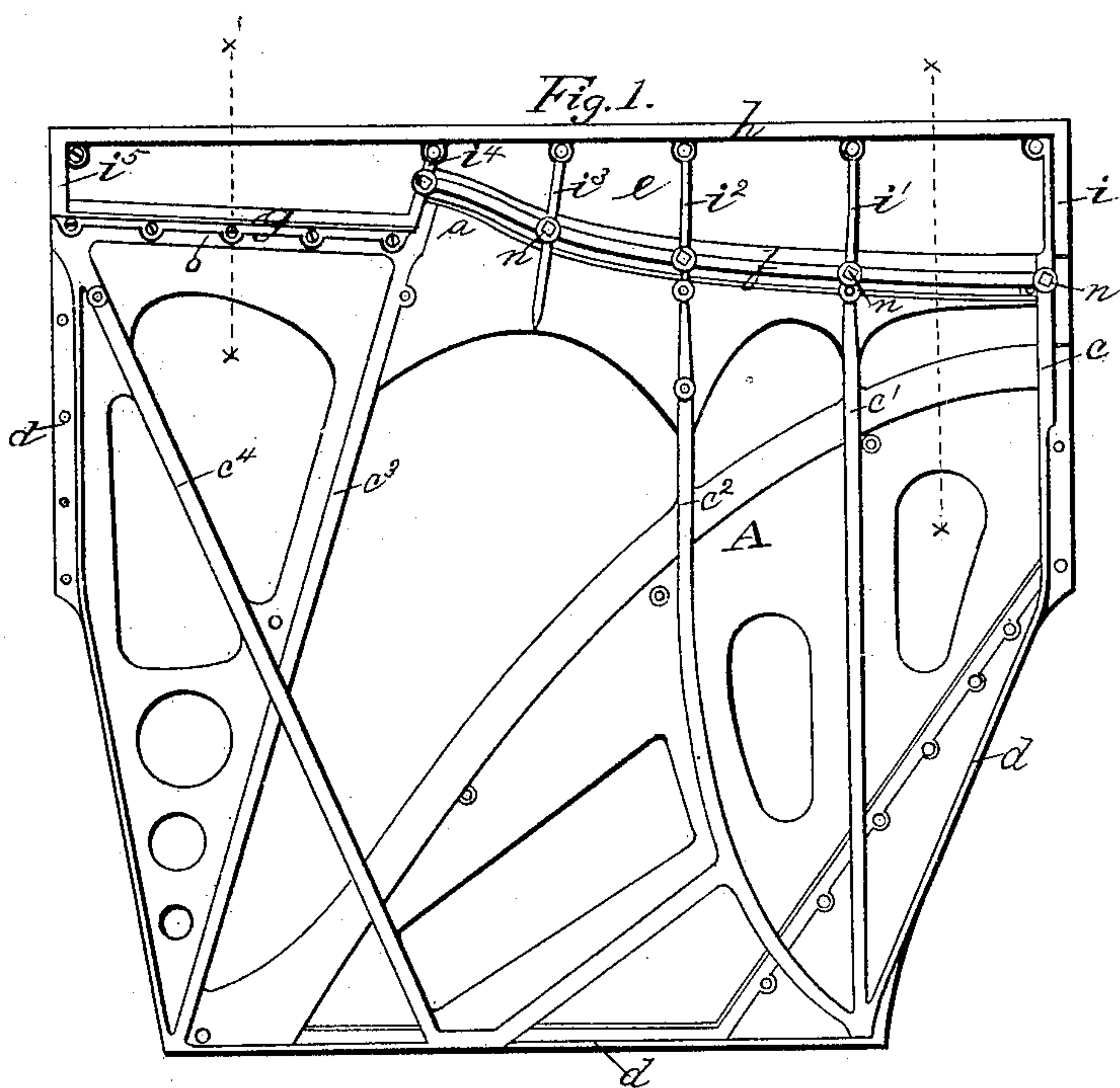
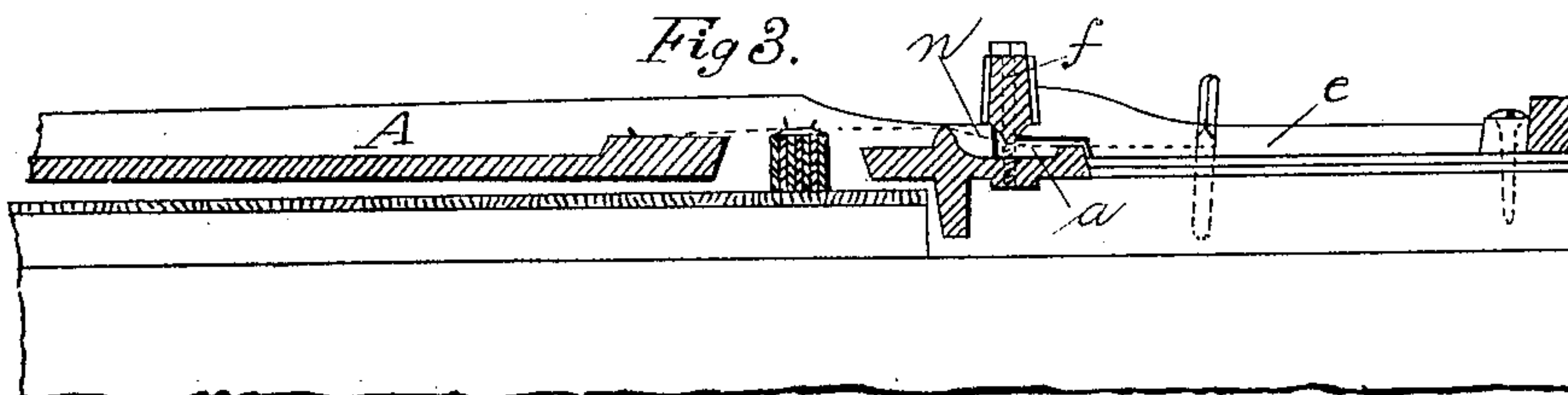


Fig. 3.



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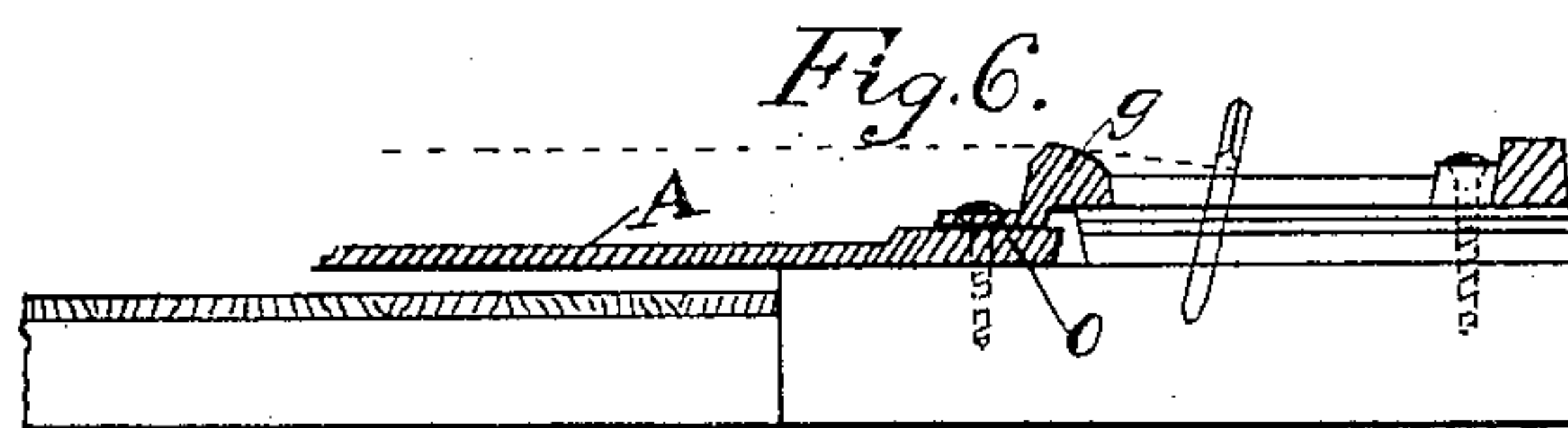
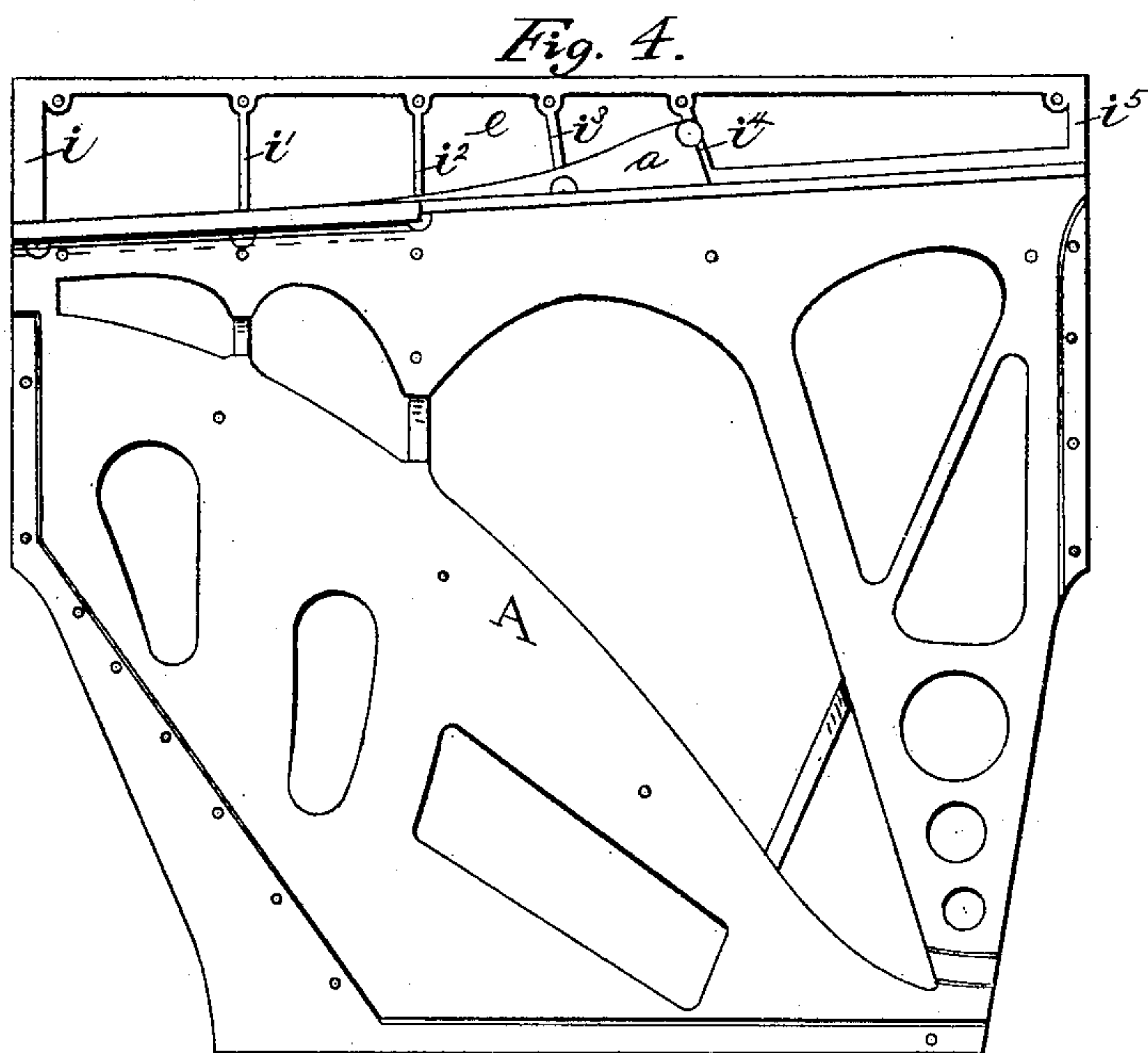
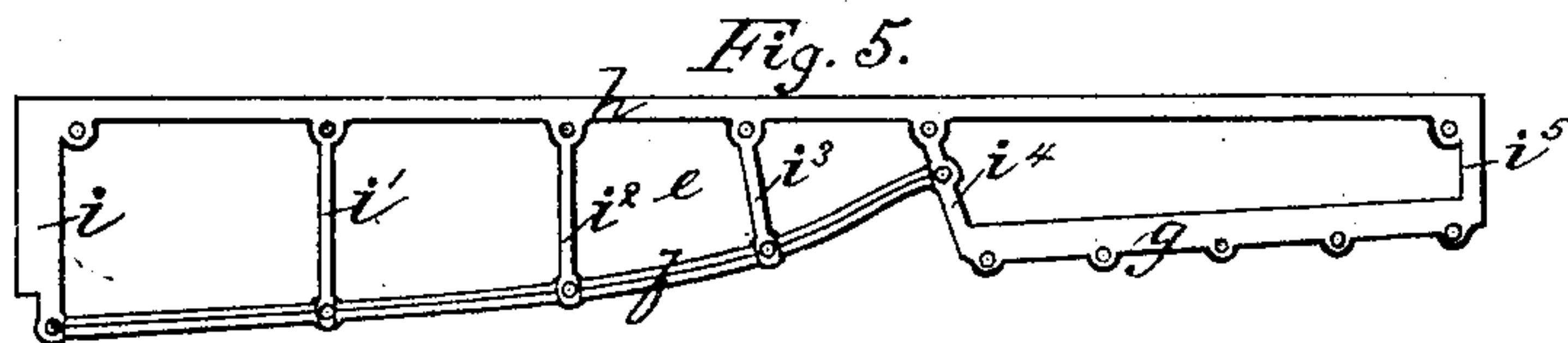
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UNITED STATES PATENT OFFICE.

JOHN W. MACY, OF CINCINNATI, OHIO.

PIANOFORTE.

SPECIFICATION forming part of Letters Patent No. 640,294, dated January 2, 1900.

Application filed September 14, 1898. Serial No. 690,976. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. MACY, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain Improvements in Upright Pianofortes, of which the following is a specification.

My invention relates to certain improvements in string-frames for upright pianos by which the capo-tasto construction of the grand piano is applied to that of the upright. To attain this end, I use, in combination with a metal string-frame, a capo-tasto frame having a capo-tasto bar and bass-bridge running the length of the scale and the necessary cross-ribs required by the divisions of the scale. By this method of construction the ordinary bearing-bars of the middle and treble strings are dispensed with, a more substantial support for the strings is obtained, and the tone of the piano improved.

My invention consists of a capo-tasto frame cast with a capo-tasto bar and bass-bridge integral with the same and having a top rib connected with the capo-tasto bar and bass-bridge by cross-ribs. The space between the ribs and the capo-tasto bar may be left open or connected by a web of the casting, as desired. The whole is secured to the wrest-plank and string-frames by a series of screw-bolts.

In the accompanying drawings, Figure 1 shows the metal string-frame with the capo-tasto frame in position. Fig. 2 shows the capo-tasto frame detached from the string-frame. Fig. 3 is a sectional view of the upper portion of the string-frame and the capo-tasto frame. Fig. 4 is a rear elevation of the string-frame and capo-tasto frame. Fig. 5 is a rear elevation of the capo-tasto frame detached. Fig. 6 is a sectional view of the bass portion of the capo-tasto frame.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the metal string-frame of an upright piano, having the bridge-plate *a* cast integral with the same, along the upper edge of which are the two down-bearings for the strings. The metal frame is provided with strengthening-ribs *c c' c² c³ c⁴* and edge ribs *d* at the sides and bottom.

The capo-tasto frame *e*, employed in combination with the string-frame described, con-

sists of the capo-tasto bar *f* and bass-bridge *g*, forming a rib that extends the width of the scale. The capo-tasto bar forms the down-bearing for the treble and middle sections of the strings. The top rib *h* extends from the bass to the treble sides of the capo-tasto frame and is connected with the capo-tasto bar *f* and bass-bridge *g* by the cross-ribs *i i' i² i³ i⁴ i⁵*. At the intersection of the cross-ribs with the top rib *h* and the capo-tasto bar *f* are placed the bosses through which the screw-bolts pass that secure the capo-tasto frame to the string-frame and wrest-plank. The capo-tasto bar overlaps the top edge of the string-frame and rests on the stops *n* and bass-web *o*. The cross-ribs are placed at the divisions of the scale and are a continuation of the strengthening-ribs of the string-frame.

While I prefer to apply the capo-tasto frame with open spaces between the capo-tasto bar and ribs, it is obvious that the same can be cast solid with the bar and ribs connected by a web of the casting.

If found desirable, the capo-tasto frame can be limited to the treble and middle portions of the instrument.

By my improved combination of metal string-frame and capo-tasto frame the separate capo-tasto bars usually employed are dispensed with, the solidity and strength of construction are increased, a better support of the strings is obtained, and the tone throughout the treble approaches that of the grand piano in brilliancy and duration.

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

1. A capo-tasto frame *e* consisting of a capo-tasto bar *f*, bass-bridge rib *g*, and top rib *h*, connected by a series of cross-ribs *i, i', i², i³, i⁴, i⁵*, substantially as described.

2. The combination of a capo-tasto frame *e* consisting of a capo-tasto bar *f*, bass-bridge rib *g* and top rib *h* connected by a series of cross-ribs *i, i', i², i³, i⁴, i⁵*, with the string-frame A: said capo-tasto frame overlapping the top edge of the string-frame to which it is attached by screw-bolts, substantially as described and set forth.

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