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F. FRANKEL,
METAL SOUNDING BOARD FOR PIANOS.
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1,440,667

Fig. 1.

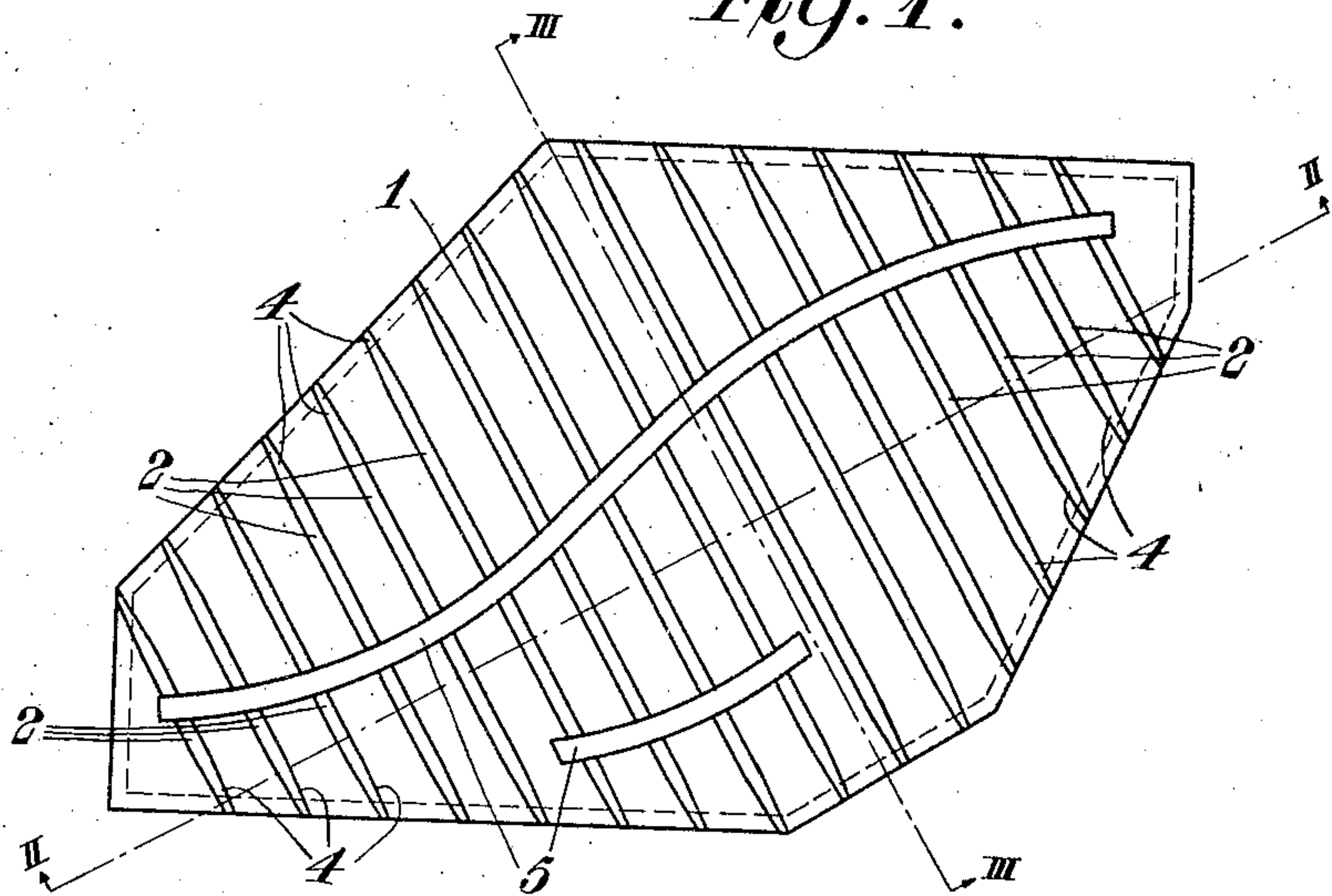


Fig. 2.

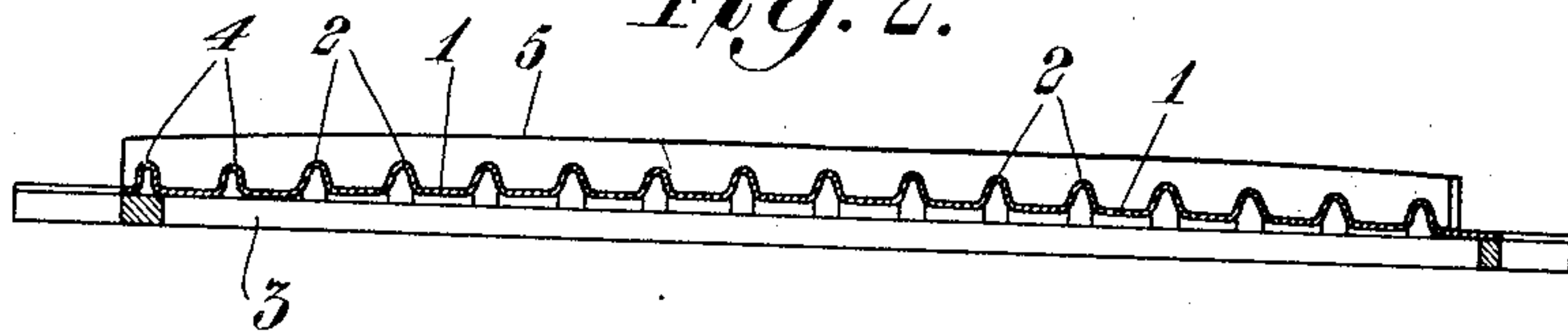
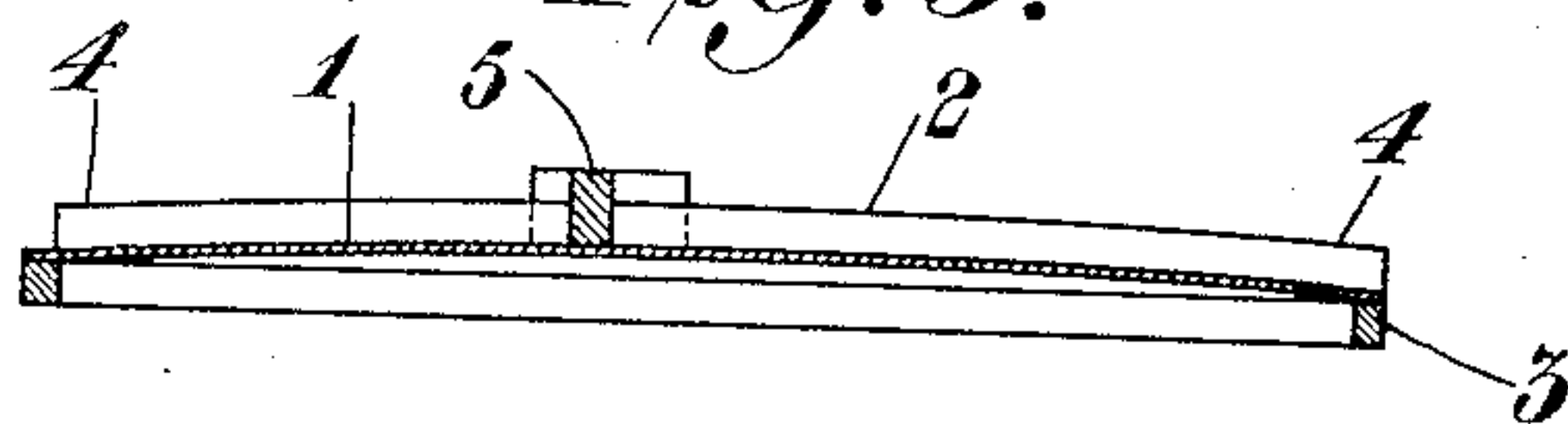


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRIDOLF FRANKEL, OF STOCKHOLM, SWEDEN.

METAL SOUNDING BOARD FOR PIANOS.

Application filed March 24, 1920. Serial No. 368,230.

To all whom it may concern:

Be it known that I, FRIDOLF FRANKEL, a subject of the King of Sweden, residing at Stockholm, in the Kingdom of Sweden, have
5 invented a new and useful Improvement in Metal Sounding Boards for Pianos, of which the following is a specification.

The present invention relates to an improvement in metal sounding-boards for pianos, and has for its purpose to increase the resounding power of such sounding-boards. The invention is broadly characterized by this that the edge portions of the sounding-board are contracted or shortened relatively
15 to the portions within said edges. In this manner a cup-shape or convexity of the sounding-board is obtained, and simultaneously there is produced a stress or tension in the board, which in turn produces an increased resounding power.

In the accompanying drawing an embodiment of the invention is illustrated. Fig. 1 shows the front side of the sounding-board, Fig. 2 is a section on the line II—II in Fig. 1, and Fig. 3 is a section on the line III—III in Fig. 1, Figs. 2 and 3 both showing the curvature or convexity of the board in an exaggerated way.

In the sounding-board 1 which is formed of
30 a whole continuous metal plate, there are formed corrugations or bent-up folds or ribs 2 which have an approximately U-shaped or V-shaped cross section. The said ribs 2 preferably project above the front side of the sounding-board 1, to which side the bridge or bridges 5 over which the strings are stretched, are secured, as it has been found that the resounding power of the sounding-board is increased if said bridge or bridges
40 5 bear directly against the ribs 2.

The sounding-board 1 is attached to the fastening rim 3 by soldering or in any other

suitable manner. When attaching the board 1 to the rim 3 each rib 2 is squeezed or pressed together in suitable manner at its
45 ends 4 at the edges of the sounding-board, so that the cross section of said ends 4 of the ribs becomes slightly narrower than that of the intermediate portions of the ribs, as shown to the left in Fig. 2. In this manner
50 the edges of the sounding-board will of course become contracted or shortened, and there will therefore be produced a certain tension in the inner portions of the board. Owing to the contraction of the edges the
55 sounding-board will of course also be convex or cup-shaped to a certain extent with a resultant increase of its capability of supporting the strings. Said capability may be still more increased by pressing or hammering
60 the middle portion in the direction towards the strings by which operation the sounding-board becomes still more convex or cup-shaped.

I claim:

1. A metal sounding-board for pianos provided with bent-up ribs having approximately V-shaped cross section and projecting above the front side of the sounding-board, each of said ribs being pressed together at
70 its ends at the edges of the sounding-board, for the purpose of producing contractions of the edge portions of the sounding-board.

2. A metal sounding-board for pianos consisting of a continuous metal plate provided
75 with bent-up ribs having approximately V-shaped cross section and projecting above the front side of the sounding-board, each of said ribs being pressed together at its ends at the edges of the sounding-board, for the
80 purpose of producing contractions of the edge portions of the sounding-board.

FRIDOLF FRANKEL.