

No. 819,962.

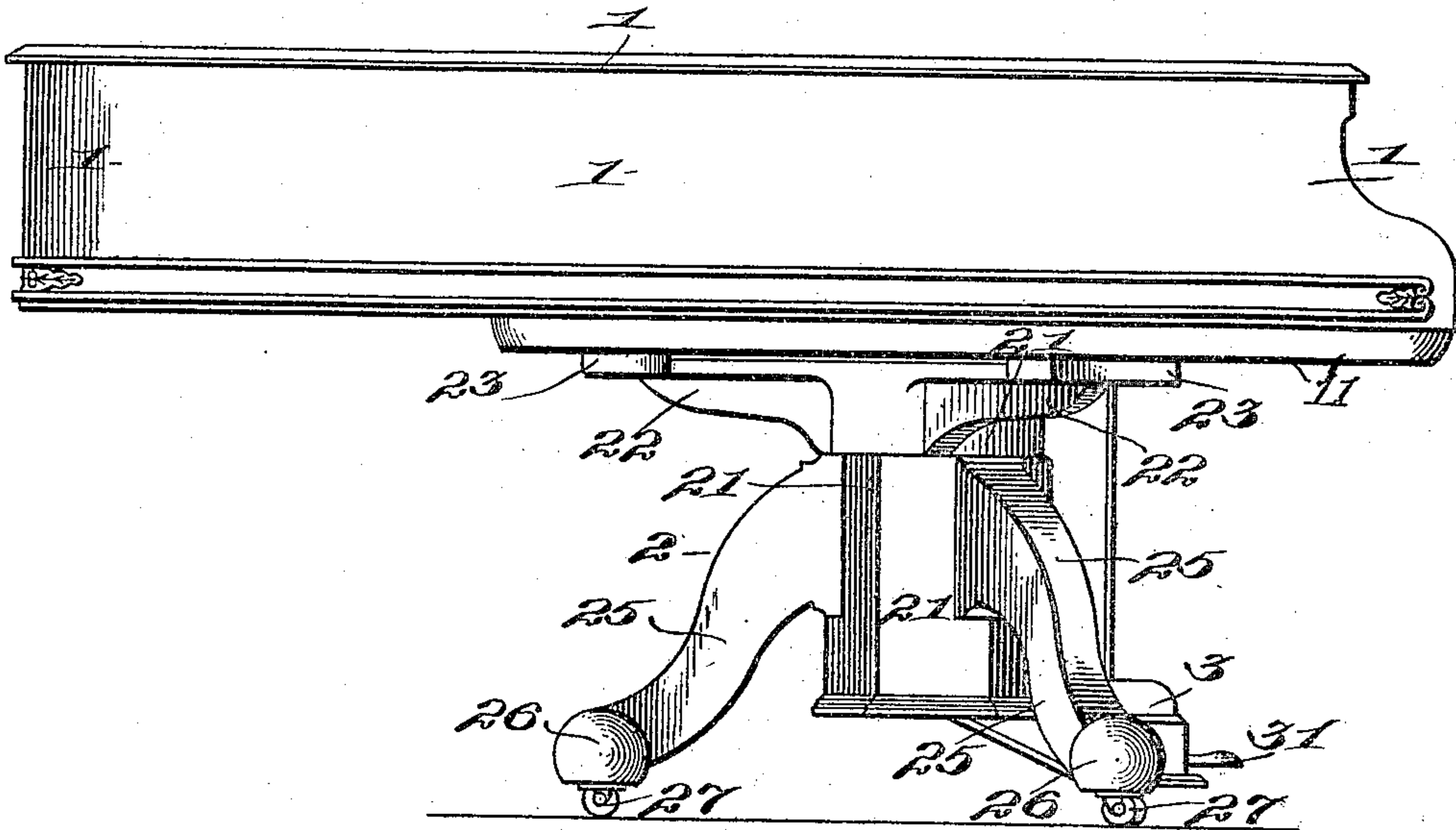
PATENTED MAY 8, 1906.

E. S. VOTEY.  
MUSICAL INSTRUMENT SUPPORT.

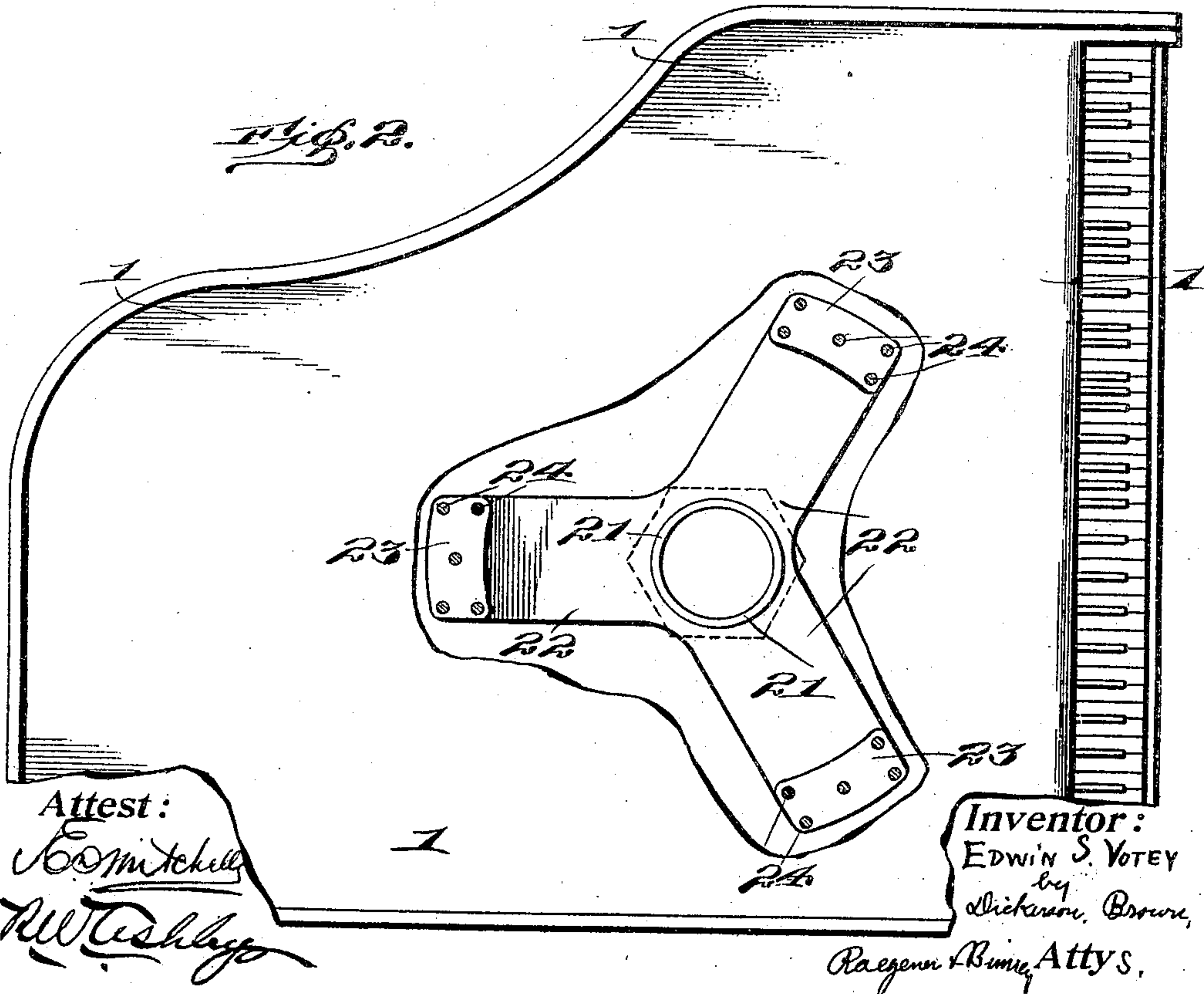
APPLICATION FILED JAN. 23, 1905.

3 SHEETS—SHEET 1.

*Fig. 1.*



*Fig. 2.*



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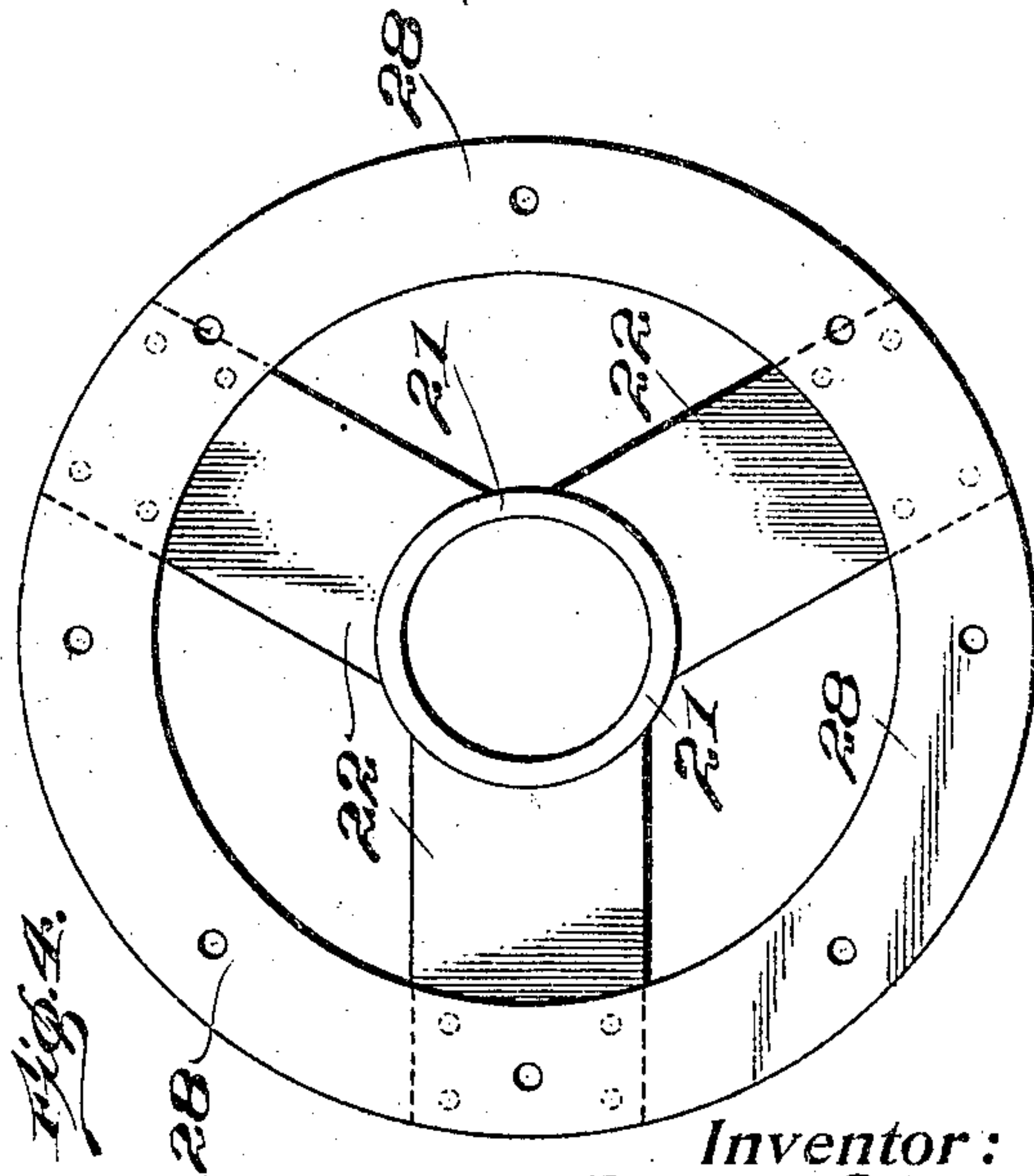
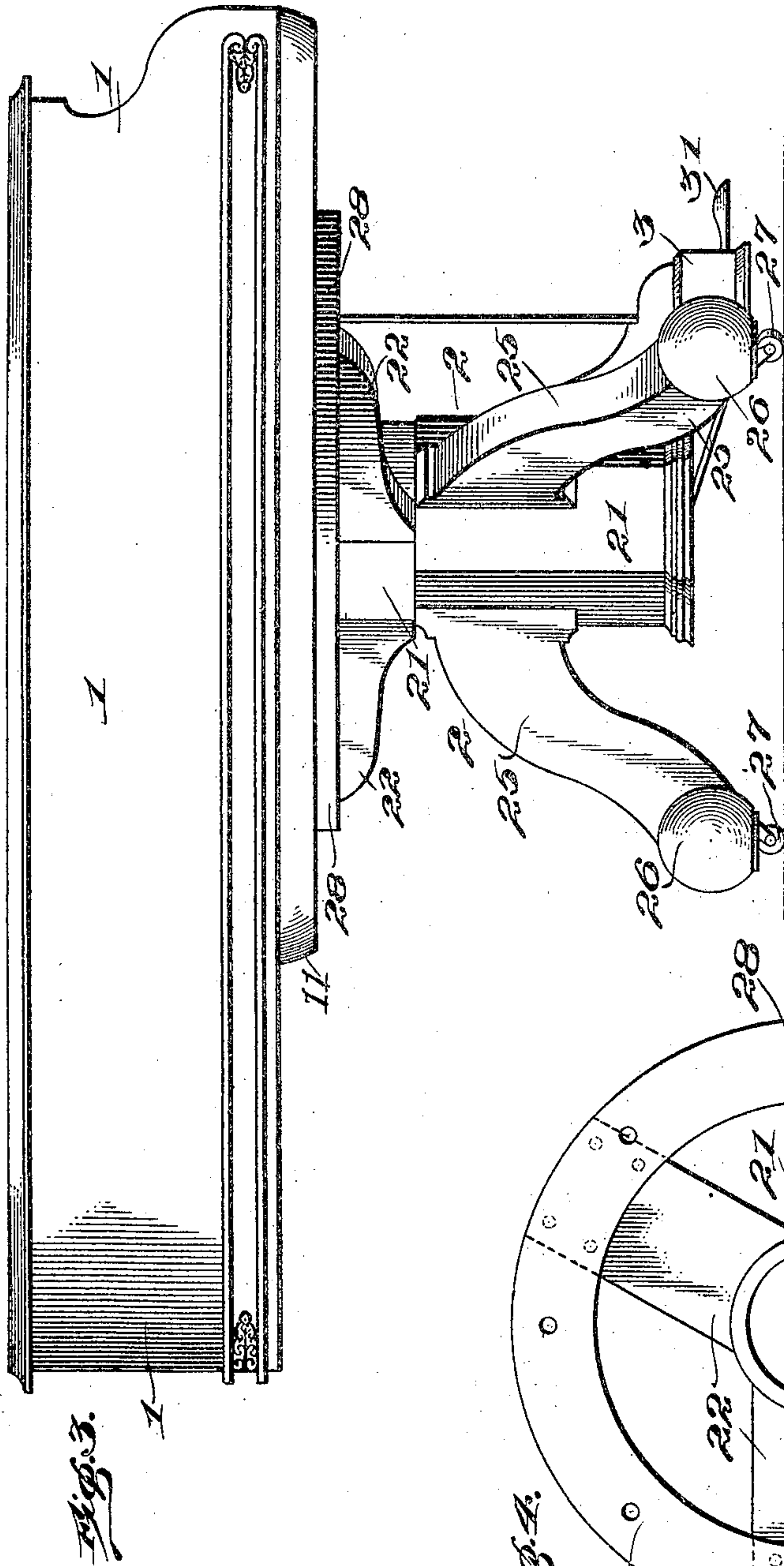
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 5.

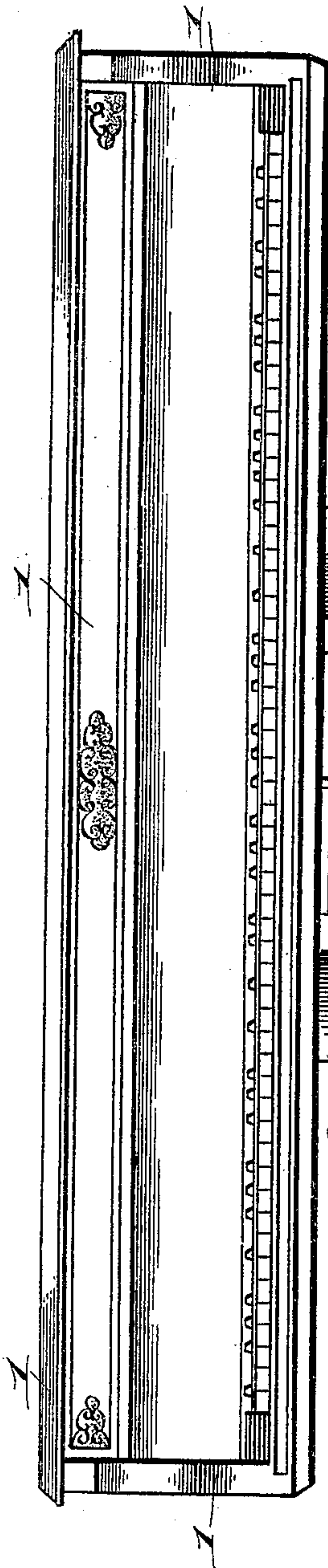
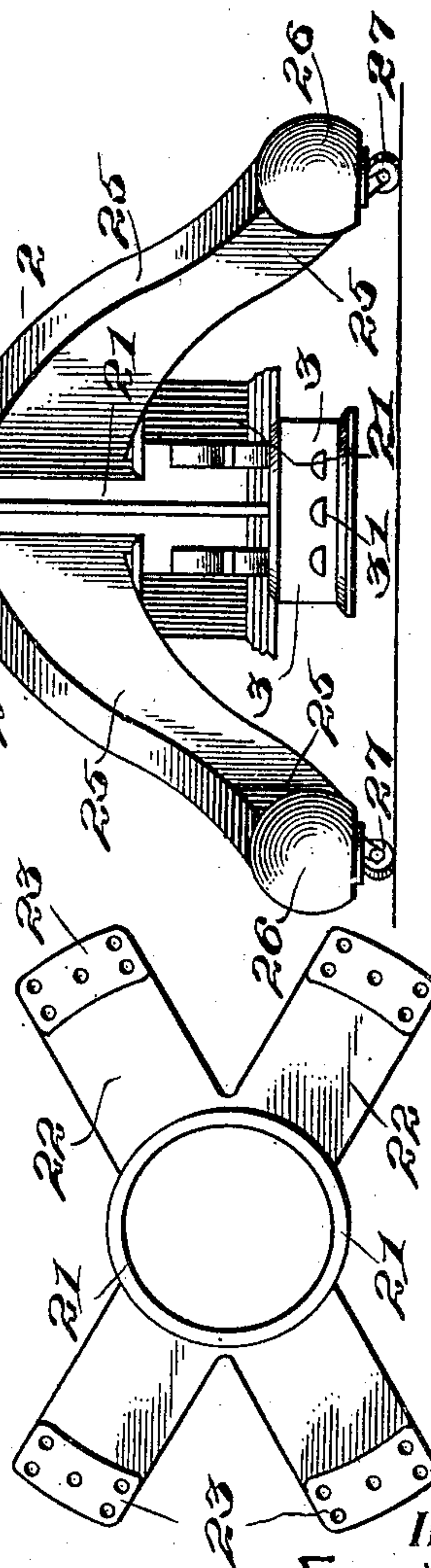


Fig. 6.



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# UNITED STATES PATENT OFFICE.

EDWIN S. VOTEY, OF SUMMIT, NEW JERSEY, ASSIGNOR TO AEOLIAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF CONNECTICUT.

## MUSICAL-INSTRUMENT SUPPORT.

No. 819,962.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed January 23, 1905. Serial No. 242,266.

*To all whom it may concern:*

Be it known that I, EDWIN S. VOTEY, a citizen of the United States, and a resident of Summit, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Musical-Instrument Supports, of which the following is a specification.

My invention relates to supports for musical instruments. It provides such a support with minimum interference with the vibration of the frame and case of the instrument.

It is of course well known that any vibrating body producing a musical sound has in addition to its fundamental tone more or fewer overtones and that upon the combination and regulation of these depends the timbre of the instrument. Heretofore, however, no attention has been paid to supporting a musical instrument as a whole so as to permit its complete and partial vibrations. I have discovered that the tone—*e. g.*, of a piano having horizontally-disposed strings and sounding-boards—is enriched in timbre by so supporting its case at nodal points or along nodal lines as to support its case, as specified in the annexed claims.

In the drawings, Figure 1 is a side elevation of a grand piano embodying my invention. Fig. 2 is a somewhat conventionalized plan view of the same centrally broken away to show the attachment of the support. Fig. 3 is a view similar to that of Fig. 1, showing a modification of the support. Fig. 4 is a top plan view of the upper portion of the support shown in Fig. 3. Fig. 5 is a front view of a square piano embodying my invention. Fig. 6 is a top plan view of the upper portion of the support.

Referring to Figs. 1 and 2 of the drawings, 1 designates the case of a grand piano, the bottom of which may be provided, if desired, with a reinforcing or thickening portion 11, as shown, and 2 the pedestal therefor, consisting of a central columnar portion 21, a plurality of diverging arms 22, having webs 23 at their outer ends connected by screws or bolts 24 with the bottom of the case 1 of the piano, and diverging legs 25, having at their outer ends feet 26, which are shown as provided with the usual casters 27. The arms 22 and legs 25 are shown as three in number, making the support of the well-

known tripod form. It will be noted that the webs 23 are elevated above the upper surface of the arms 22, so that these alone engage with the bottom of the piano-case. The length, proportion, and direction of these radially-diverging arms 22 will necessarily differ with pianos of different shapes, as square or grand, but will always be so arranged that the webs 23 shall be separated from each other and spaced away a substantial distance from the periphery of the case. It is obvious that the column 21 is located for security's sake approximately beneath the center of mass of the instrument and that the radially-diverging legs 25 may be of any desired length and contour to afford a safe base for the instrument. I have shown the lyre 3 with its pedals 31 as supported from the column 21 of the pedestal 2; but it is obvious that this forms no essential feature of my invention.

In Figs. 3 and 4 of the drawings I have shown the support consisting of the parts above described with the addition of an annulus 28, which may be secured to the base of the piano by bolts passing through apertures shown therein. It is obvious that the ring or annulus 28 may be made so light as to partake of the vibrations of the bottom of the case 1 or sufficiently rigid to define the vibrating areas and itself form a nodal line.

Fig. 5 shows a front view of a square piano having a pedestal similar to that shown in Fig. 1, except that the radially-diverging arms and legs 22 and 25, respectively, are shown as four in number. As in the figures first described, the webs 23 at the ends of the arms 22 form the sole connection between the pedestal of the instrument and should be so disposed and of such a length as to be approximately the nodal points of vibration of the bottom of the frame and case of the instrument. It is found in practice that a grand or square piano supported on a pedestal or unitary support having diverging arms the ends of which are secured to the bottom of the case at points remote—*i. e.*, spaced away a substantial distance from its periphery—produces musical tones advantageously differing in timbre from those which can be produced from the same instrument when supported by three or four legs situated adjacent its periphery in the usual manner.

I have shown some variations and modi-

fications in the form of my device to indicate that I am not to be limited to the particular forms shown any more than to the material employed.

5 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a piano, a horizontally-disposed case, and a unitary support therefor, said support  
10 being secured to said case at a plurality of points separate from each other and remote from the periphery of the case.

2. In a piano, a horizontally-disposed case and a unitary support therefor, said support  
15 having diverging arms, the outer ends of

which are secured to said case at points of the latter remote from its periphery.

3. In a piano, a horizontally-disposed case and a support therefor comprising a columnar portion, diverging legs and diverging  
20 arms, the outer ends of said arms being secured to said case at points of the latter remote from its periphery.

In testimony whereof I have signed this specification in the presence of two subscrib-  
25 ing witnesses.

EDWIN S. VOTEY.

Witnesses:

D. C. HEINS,  
F. H. HUGHES.