

(No Model.)

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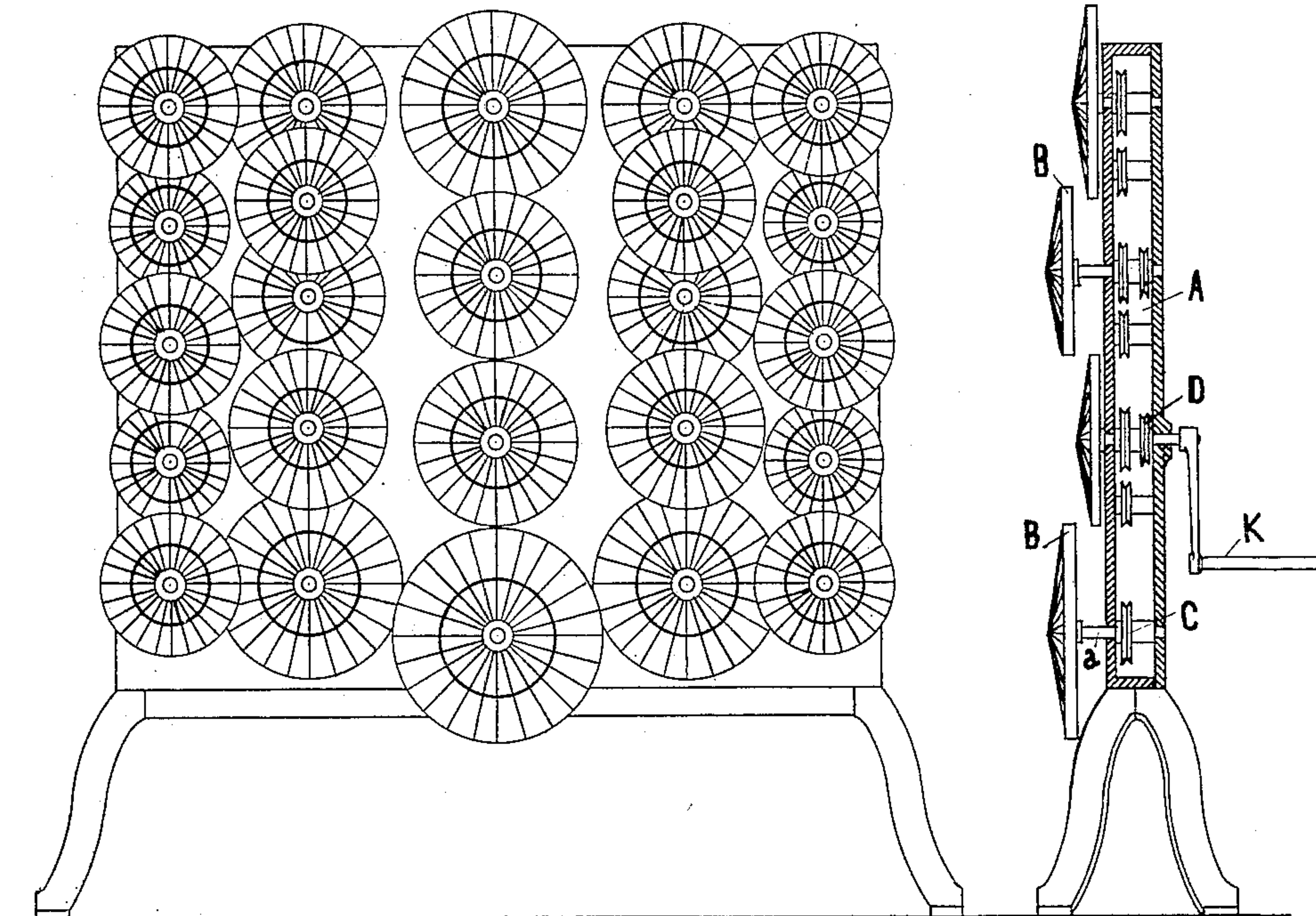
R. PRIGGE.
STRINGED MUSICAL INSTRUMENT.

No. 598,958.

Patented Feb. 15, 1898.

Fig. 1

Fig. 2



Witnesses:
H. Willemms,
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Inventor:
Richard Prigge
per *[Signature]*
Attorney.

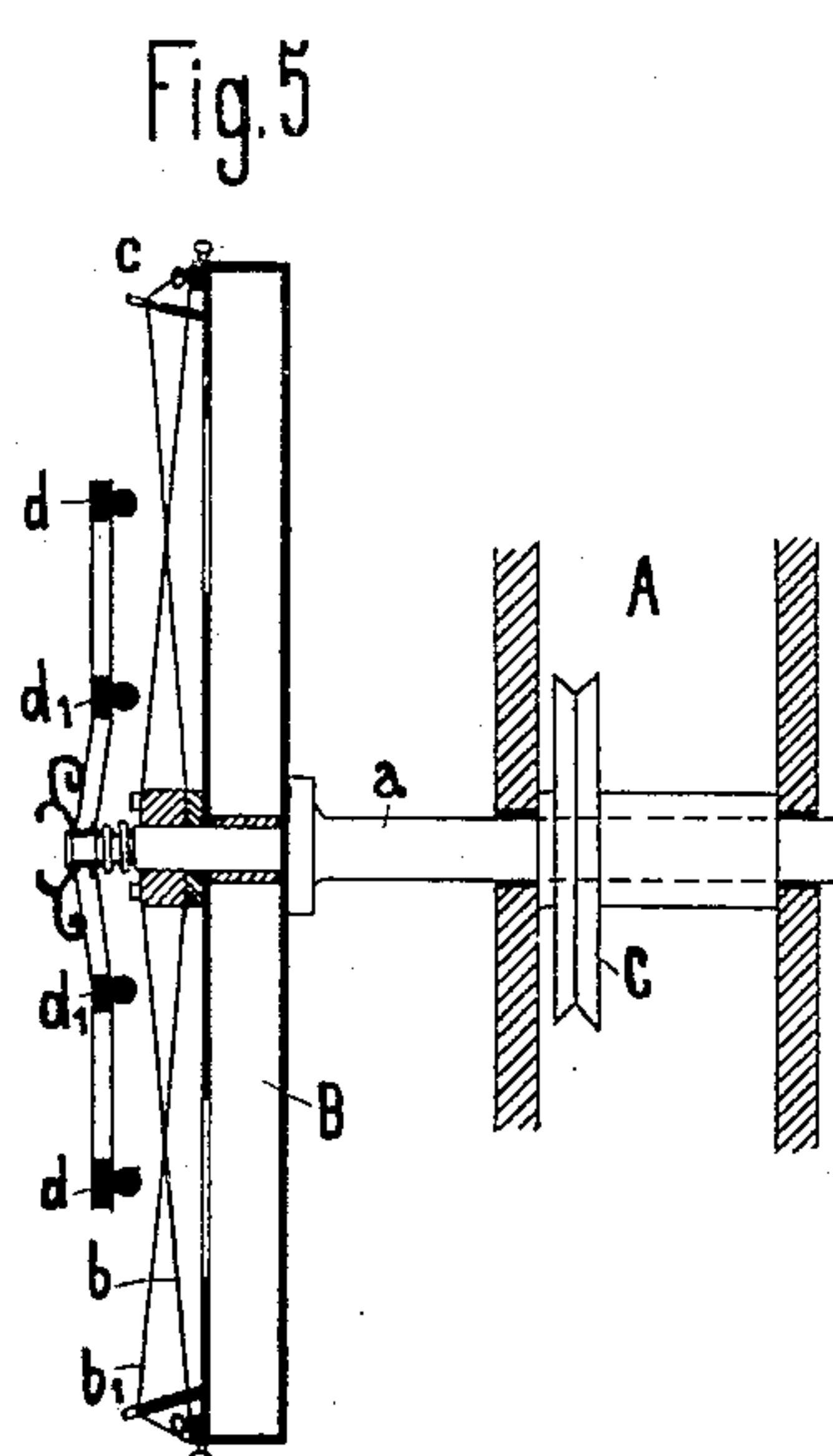
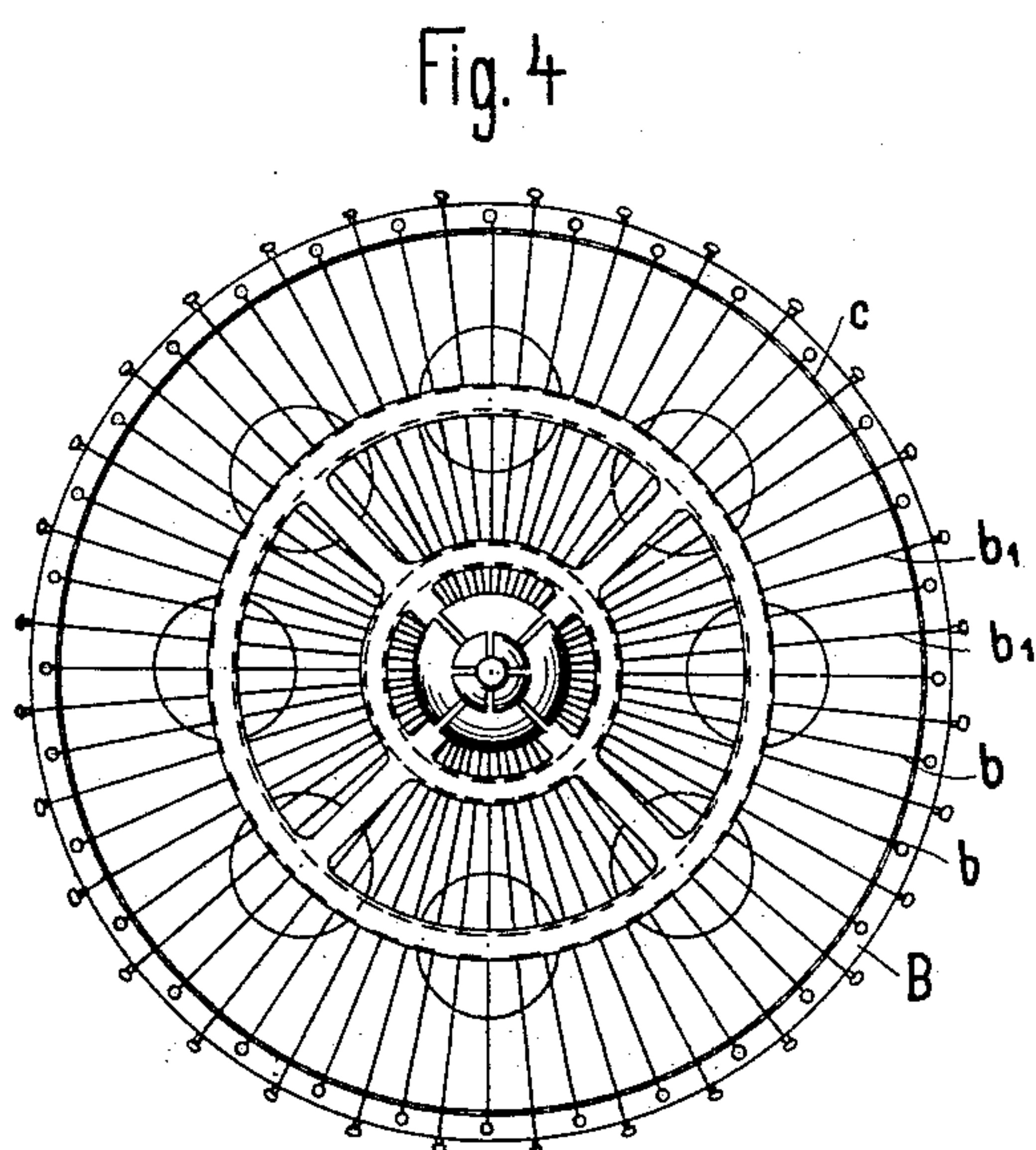
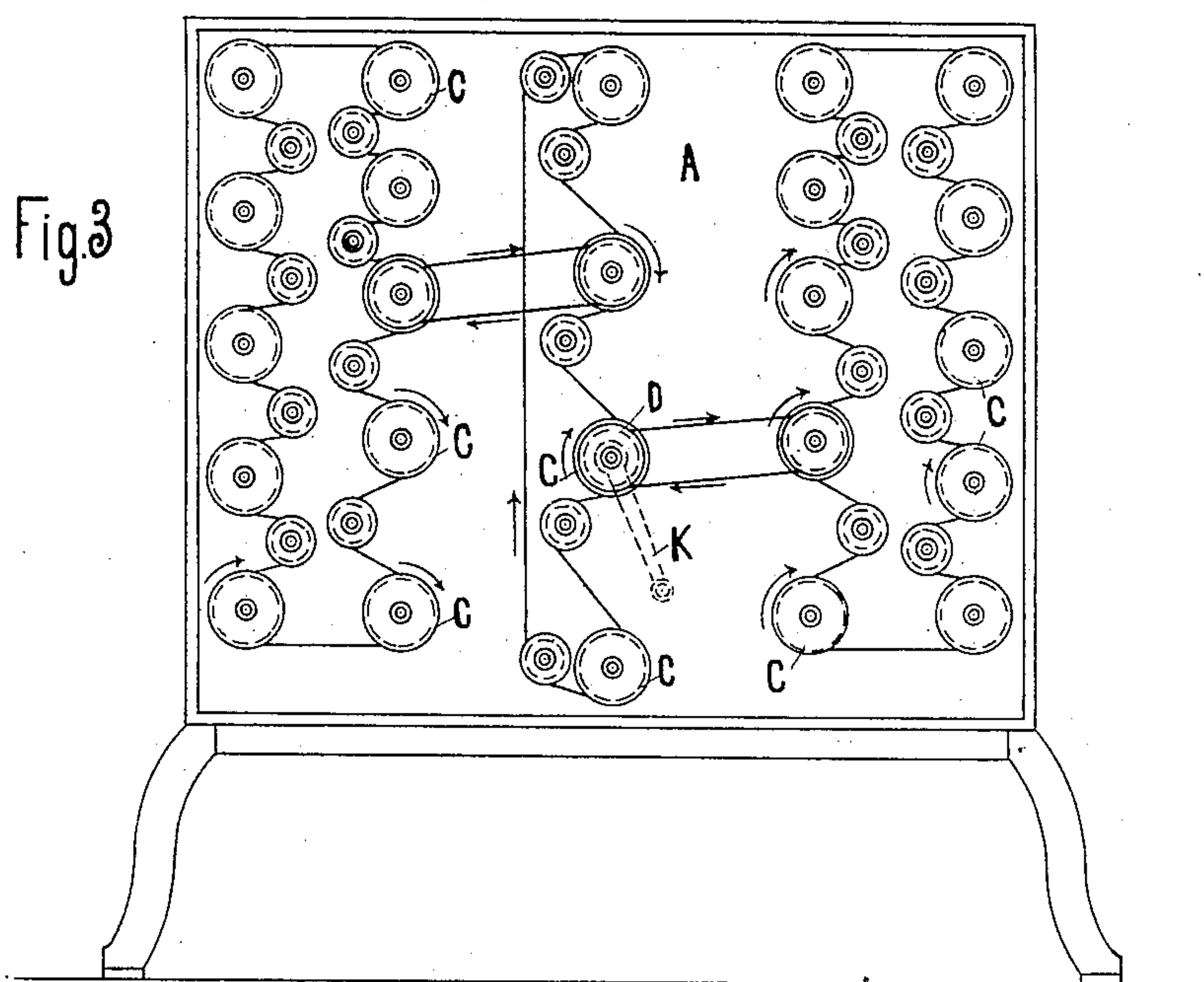
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2 Sheets—Sheet 2.

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Patented Feb. 15, 1898.



Witnesses:
H. Willem, Jr.
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Inventor:
Richard Prigge
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UNITED STATES PATENT OFFICE.

RICHARD PRIGGE, OF COLOGNE, GERMANY.

STRINGED MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 598,958, dated February 15, 1898.

Application filed January 27, 1896. Serial No. 576,986. (No model.) Patented in Germany October 25, 1895, No. 89,156; in England January 20, 1896, No. 1,349, and in France June 4, 1896, No. 256,941.

To all whom it may concern:

Be it known that I, RICHARD PRIGGE, artist, a subject of the King of Prussia, Emperor of Germany, and a resident of Cologne, in the Province of Rhineland and Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification, reference being had therein to the accompanying drawings.

The same invention has already been patented to me in the following countries: Germany, October 25, 1895, No. 89,156; Great Britain, January 20, 1896, No. 1,349, and France, June 4, 1896, No. 256,941.

The present invention relates to a stringed instrument whose chief distinguishing feature consists in the fact that whereas in all instruments of this kind in use up to the present the strings are at rest and the hand performs the motions necessary to produce the sounds. In this case the hand, to a certain extent, rests on the strings while the latter are set in motion. While, furthermore, in the ordinary stringed instruments only one string gives the desired note, this note in consequence being somewhat weak, in the instrument which I shall now describe a considerable number of equally-tuned strings are provided for each note, so that a great increase of sound, such as is demanded especially for artistic performances in large halls filled with people, is obtained.

In the accompanying drawings the new instrument is represented in one of the forms in which it is made.

Figure 1 shows it in a view from the front; Fig. 2, in a section to xx' of Fig. 1. Fig. 3 shows the box after the upper cover has been removed, thus making the working mechanism visible. Fig. 4 gives a detail of the instrument with regard to the arrangements of the strings, with the mute in an upper view; and, finally, Fig. 5 is a transverse section of Fig. 4.

The instrument consists principally of a sound-box A and a number (in this case twenty-four) of the sound-bodies supporting the strings, which, as will be seen from Fig. 2, are arranged on shafts which are movably mounted in the sound-box A and inside the

latter bear the pulleys C. These pulleys are connected in any kind of way (in the present case by endless cords, but otherwise also by toothed-wheel gearing, &c.) in such a manner with each other that from a pulley D, Fig. 3, by means of a crank K, all the shafts a , and thus also all the sound-bodies B, must be simultaneously made to rotate. As will be seen from Figs. 4 and 5, strings b and b' are radially attached to these sound-bodies after the manner of the spokes in bicycles. The strings denoted by b , which are all tuned to one note, run from the upper part of the nave direct to the edge of the sound-body B, while the strings b' , which are likewise all equally tuned, but to a different note from that given by the strings b , run from the lower part of the nave over a bridge c to the edge of B. This arrangement has the effect that at one time all the strings b , at another time only all the strings b' , can be struck, while when it is desired the double note of both strings can be produced by striking them at the point where they cross each other.

The sound-bodies are of diameters varying in size, and a number of them are stretched with uncovered and the other with covered strings.

In the form of instrument under consideration, for instance, there are present eight sound-bodies of 0.6 millimeter diameter with two multiplied by eighty-four equal each one hundred and sixty-eight covered strings, seven bodies of 0.8 millimeter diameter with each two multiplied by ninety-six equal one hundred and ninety-two covered strings, eight sound-bodies of 0.7 millimeter diameter with each two multiplied by ninety-six equal one hundred and ninety-two uncovered strings, and one body of 0.9 millimeter diameter with two multiplied by one hundred and twenty covered strings. The instrument has thus forty-eight different sounds, but of course it can be given more, according to need.

In order to cause the sound to cease at will, a mute is provided for each sound-body, consisting of two gutta-percha rings $d d'$, Fig. 5, attached to a frame-ring subject below to the pressure of a spring. These rings can be pressed by the hand on the strings, thereby immediately deadening the sound. On the

pressure ceasing, the rings are raised again from the strings by the pressing of the spring. The instrument made in this manner is played by all the sound-bodies B being made to re-
 5 volve and by the artist holding a little peg of ivory or the like to the strings, which produces the desired note. By the rapid rotation of the bodies B (two to three rotations per second) all the strings are rapidly car-
 10 ried past the little peg and touched by it. The sounds of the different strings thereby melt into a single sound, which, it will be easily understood, is greatly increased.

By pressing the peg more firmly or less
 15 firmly on the strings the sound can be modified from fortissimo to the lightest piano.

When used by artists for stage performances, the instrument is of course provided with proportionate ornamentations which can
 20 be adapted to suit each individual taste.

It goes without saying, as I have mentioned before, the form of instruments as here described and drawn is only an example of the various forms which the instrument can be
 25 made to assume with reference to the general arrangement of the sound-bodies B on the sound-box, as well as with reference to the number and construction of the latter. For instance, instead of the sound-bodies B simple
 30 wheels may also be used, on which the strings are stretched. Then instead of these wheels cylinders might be employed which would turn toward the sound-box, or instead of the mute here described another mechanism
 35 might be provided which would act on the one ring of strings from above and on the other from below.

Having now particularly described and ascertained the nature of my said invention and
 40 in what manner the same is to be performed, I declare that what I claim is—

1. A musical instrument, consisting of an upright sound-board with movable axles arranged in rows alongside of each other, a number of sound-bodies arranged on the latter
 45 and stretched with strings, a mechanism for turning all the axles simultaneously substantially as described.

2. A musical instrument, consisting of an upright sound-board A with movable axles *a*,
 50 arranged in rows alongside of each other, a number of sound-bodies B of different diameter, arranged on the axles *a* and stretched with two sets of strings *b, b'*, radially attached to the sound-bodies B, the strings of the set
 55 all being tuned to one note and running from the upper part of the nave, direct to the edge of the sound-body, the strings of the other set being likewise all equally tuned but to another note as that of the first set, and running
 60 from the lower part of the nave over a bridge to the edge of the sound-body, and a mechanism for turning all the axles simultaneously substantially as described.

3. A musical instrument, consisting of an
 65 upright sound-board A with movable axles *a*, arranged in rows alongside of each other, a number of sound-bodies B, arranged on the axles *a* and stretched with two sets of strings
 70 in the manner as described, and a mechanism for turning all the axles simultaneously in combination with a mechanism acting as a mute, consisting of the gutta-percha rings *d, d'* attached to a frame-ring, the latter being
 75 provided with a spring, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

RICHD. PRIGGE.

Witnesses:

SOPHIE NAGEL,
 WILLIAM H. MADDEN.