

1,145,146.

Patented July 6, 1915.
 2 SHEETS—SHEET 1.

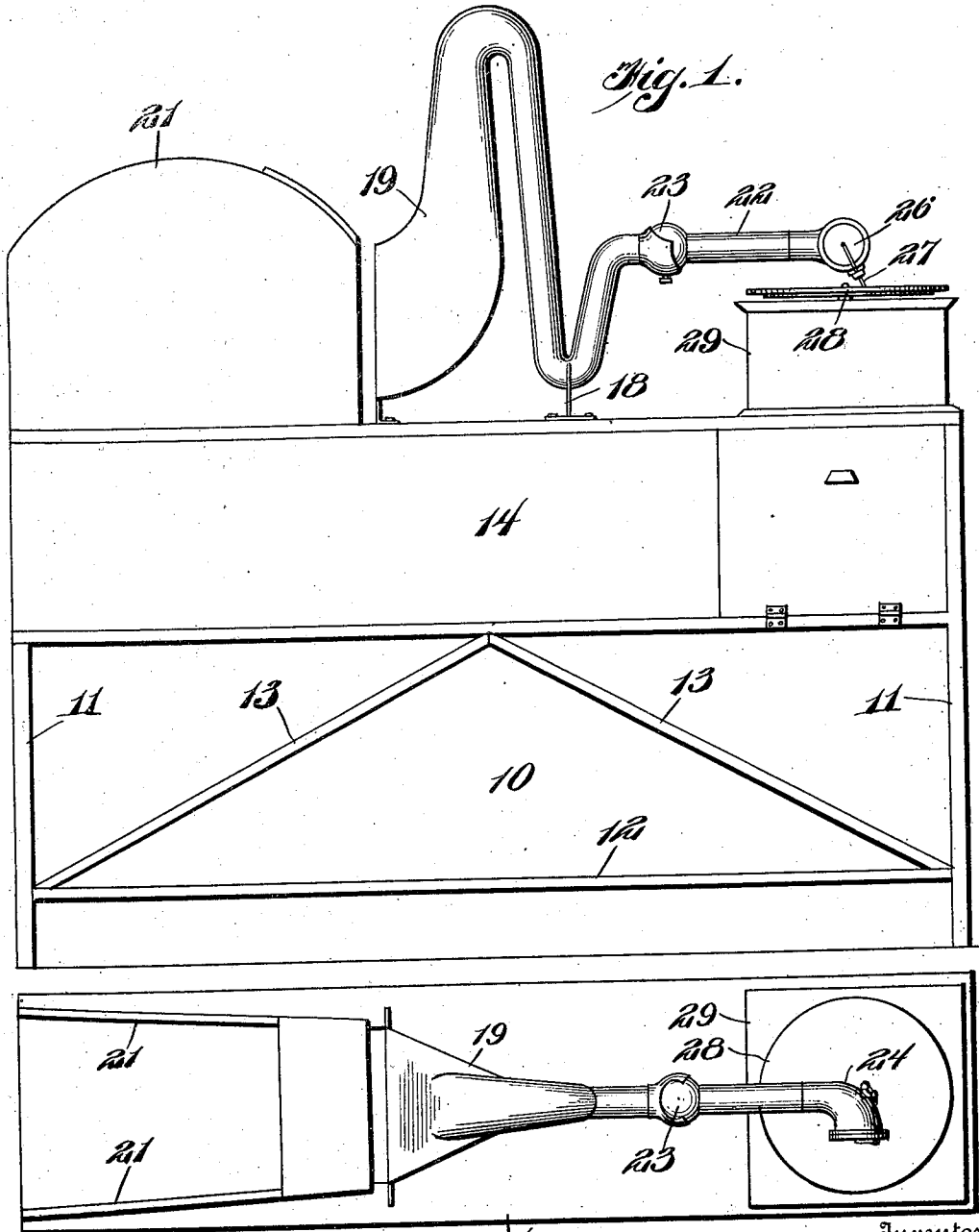


Fig. 2. 14

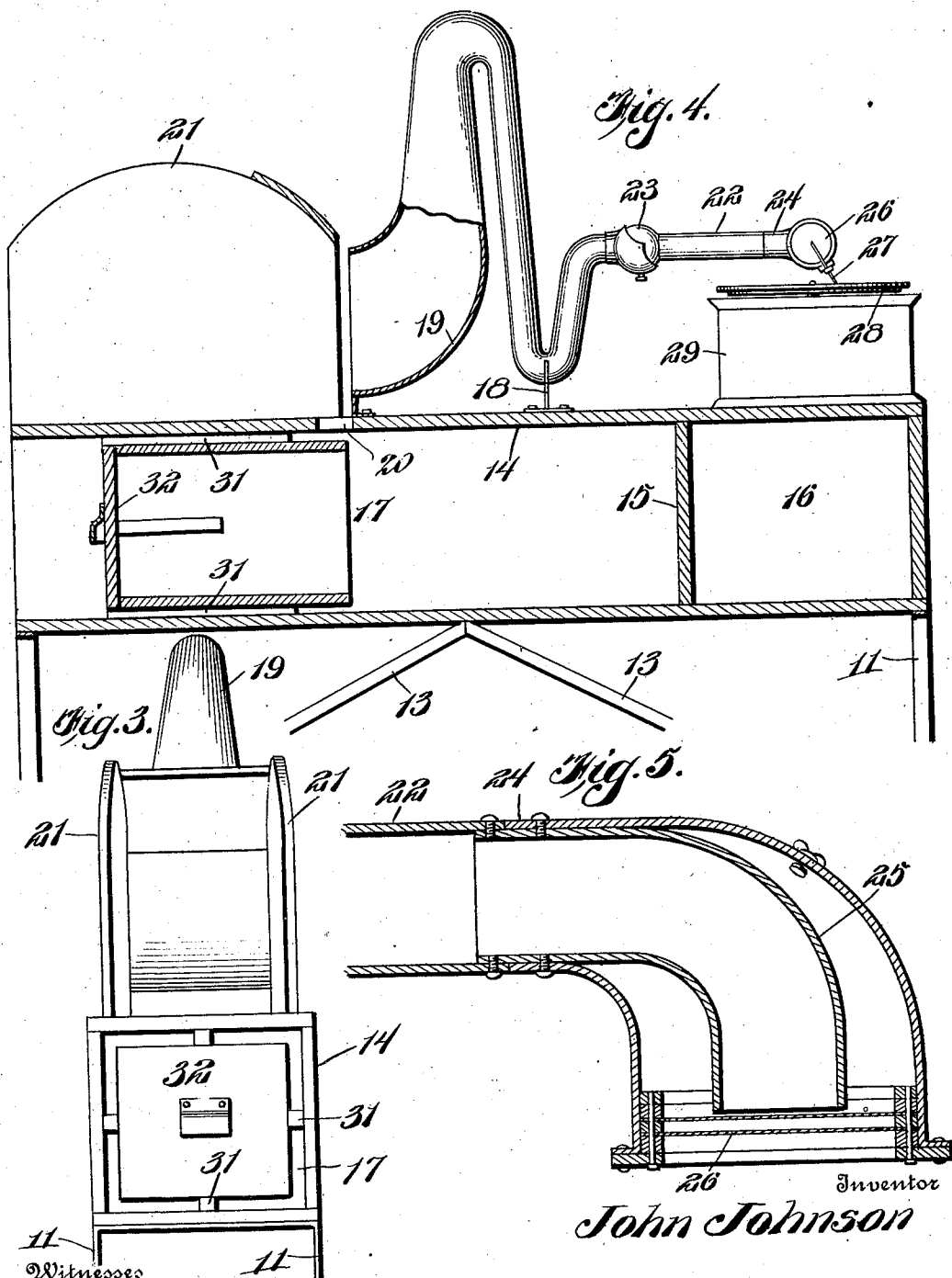
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PHONOGRAPH.

1,145,146.

Specification of Letters Patent.

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Application filed April 25, 1914. Serial No. 834,482.

To all whom it may concern:

Be it known that I, JOHN JOHNSON, a citizen of the United States, residing at Olongapo, in the Philippine Islands, have invented new and useful Improvements in Phonographs, of which the following is a specification.

The invention relates to talking machines, and has for an object to provide a phonograph which will clearly and distinctly reproduce vocal, instrumental or other sounds and whereby the pitch of musical notes can be varied.

In the further disclosure of the invention reference is to be had to the accompanying drawings, constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which:

Figure 1 is a side elevation of the phonograph; Fig. 2 is a plan view; Fig. 3 is a front elevation; Fig. 4 is a partial vertical longitudinal sectional view of the structure shown in Figs. 1 and 2; and Fig. 5 is a fragmentary enlarged sectional view showing in detail the construction of the tone arm.

Referring more particularly to the views, I provide a base 10 consisting of a series of uprights 11 connected by horizontal braces 12 and diagonal braces 13, the said base being arranged to support a casing 14 subdivided by a partition 15 to provide a record compartment 16 and a sound regulating compartment 17. An upright 18 is supported on the casing 14 and carries a suitable horn 19 having its open end flared and arranged to terminate adjacent a transverse opening formed in the top wall of the sound regulating compartment 17, a plurality of relatively spaced sound guiding plates 21 being supported on the top wall of the compartment 17, with the open end of the horn lying adjacent to the inner ends of the plates as shown. The other end of the horn has a tone arm 22 mounted to swing and to turn thereon by means of a universal coupling 23 and the said tone arm 22 consists, more particularly, of a tubular outer member 24 having a flared end and within which is arranged a tubular inner member 25, the said tubular inner member having its inner end secured within the tubular outer member and its free end lying within the flared portion of the tubular outer member and spaced

from the side walls thereof. A reproducer 26 is mounted to turn on the flared end of the tubular outer member 24 and carries a stylus 27 adapted to operate over a record tablet 28 supported on a box 29 carrying a suitable mechanism (not shown), for rotating the record tablet 28, it being thus apparent that when rotation is imparted to the record tablet having a sound record thereon the stylus 27 bearing on the record will transmit the sound through the horn 19 in the usual manner and the same as in the ordinary phonographs now in use.

A series of longitudinal guide strips 31 are secured to the inner walls of the sound regulating compartment 17 and mounted to slide thereon is a regulating member 32 movable longitudinally within the compartment, thus restricting the open end of the compartment, as will be readily apparent by referring to the views, it being further noted that the said member 32 can be moved toward or away from the transverse opening 20 formed in the upper wall of the compartment and which lies adjacent to the flared or mouth end of the horn 19.

Now referring to the views it will be apparent that when the phonograph is placed in operation the sound issuing from the mouth end of the horn 19 can be changed by advancing or retreating the member 32 in the compartment 17 for the purpose of changing the pitch of the notes which issue from the horn.

From the foregoing description it will be apparent that my device is simple in operation; will effectively change the pitch of the sound issuing from the mouth end of the horn by simply advancing or retreating the regulating member 32 in the compartment 17 and will thus permit of so regulating the resultant sound produced when the stylus operates over the record tablet that the voice of a person can be raised or lowered in tone to suit the operator.

Although I have shown a particular form of my invention in the drawings forming a part of this specification, it will be understood that I do not limit myself to the specific construction disclosed; that various departures may be made without departing from the spirit of the invention and that the scope of the invention is defined in the appended claims.

Having thus described my invention, I claim:

1. In a phonograph, a casing, an amplifying horn supported on the casing, sound guiding plates on the casing and in juxtaposition to said horn, with an opening formed in the casing between said guiding plates, and a regulating member arranged to slide in the casing adjacent the opening therein.
2. In a phonograph, a casing, an amplifying horn supported on the casing, sound guiding plates on the casing and in juxtaposition to said horn, with an opening formed in the casing between said sound guiding plates, a regulating member arranged to slide in the casing adjacent the opening

therein, and guide strips in the casing to slidably support the regulating member therein.

3. In a phonograph, a casing having an opening, an amplifying horn on the casing and having its open end adjacent the opening in said casing, and a regulating drawer sliding in an open ended chamber in the casing adjacent the opening in juxtaposition to the open end of said horn.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN JOHNSON.

Witnesses:

G. LEYOC,
APOLONIO CABATIT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."