

No. 722,776.

PATENTED MAR. 17, 1903.

W. TURES.
SOUND REPRODUCER.

APPLICATION FILED JUNE 13, 1902.

NO MODEL.

Fig. 1.

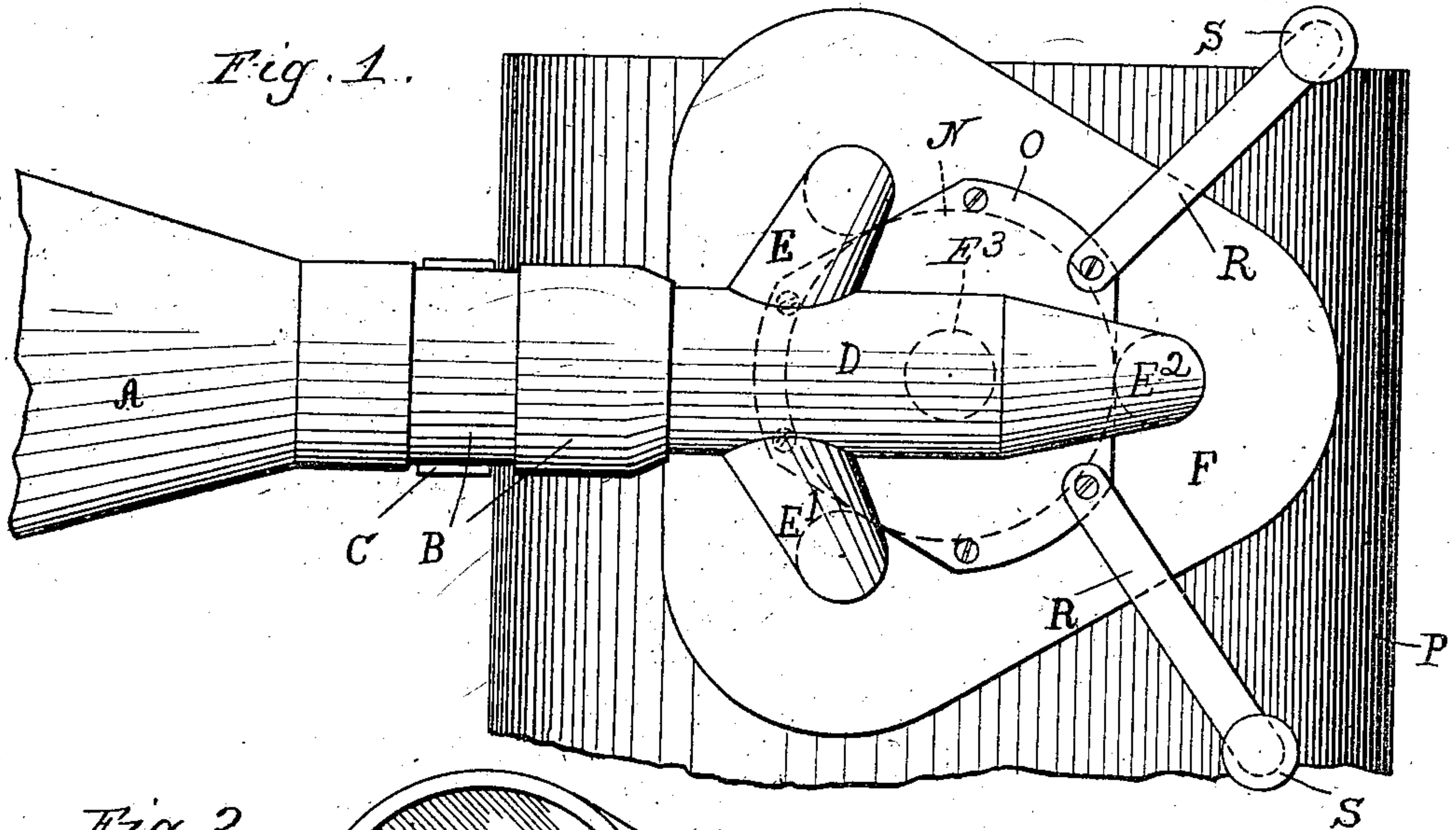


Fig. 2.

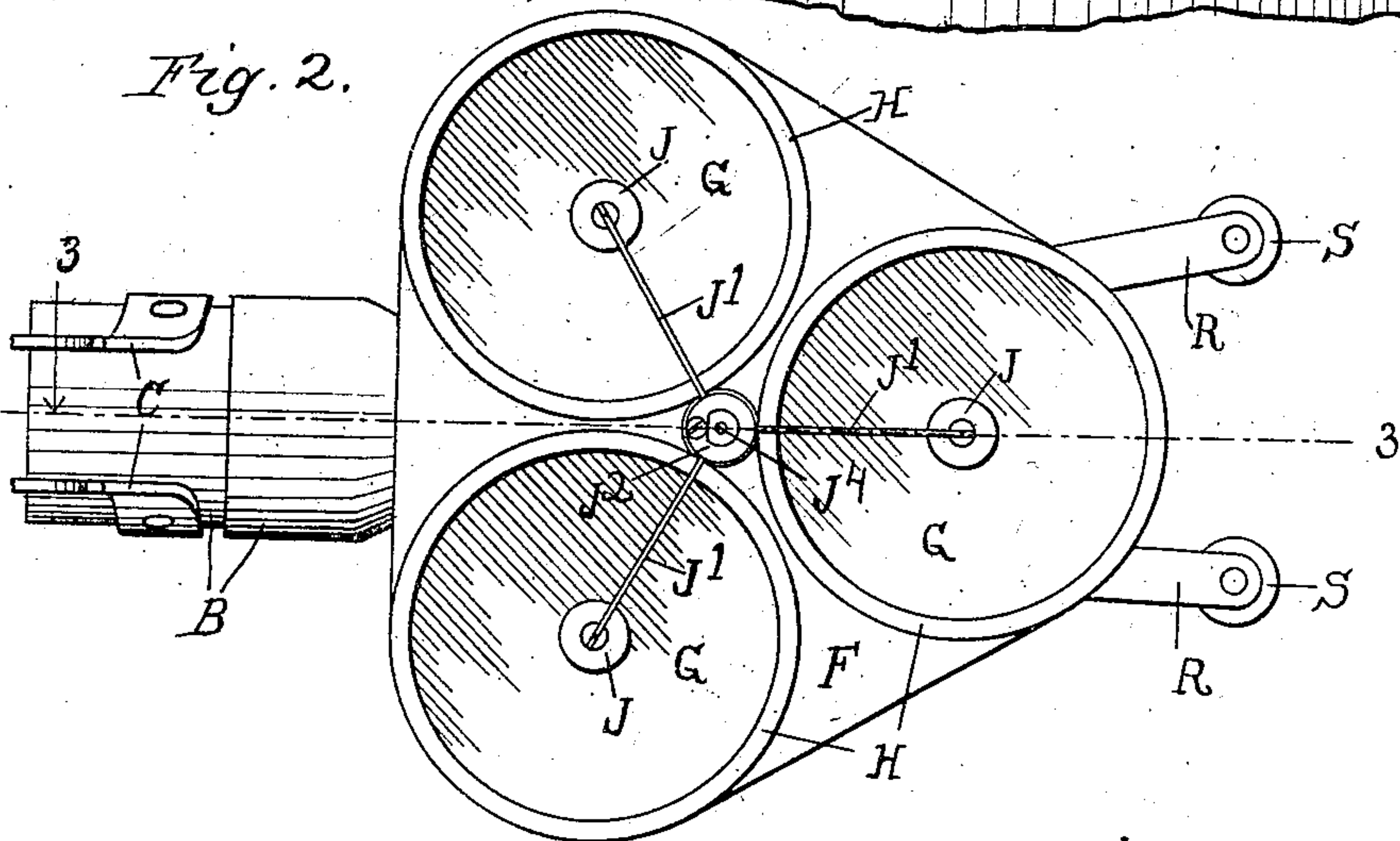
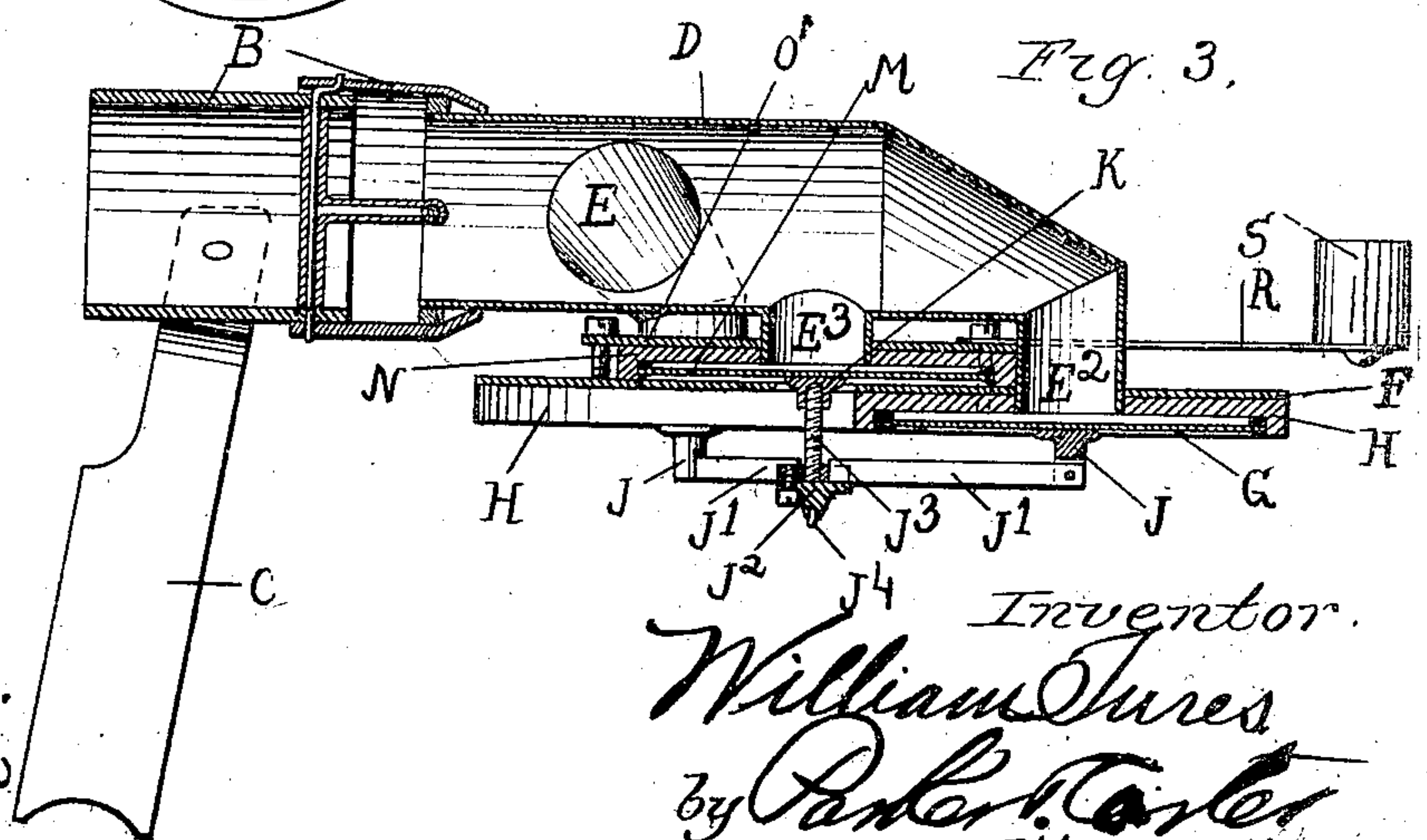


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM TURES, OF GRANVILLE, ILLINOIS, ASSIGNOR OF ONE-HALF TO
EDGAR DUNHAM AND R. B. STRUTHERS, OF PRINCETON, ILLINOIS.

SOUND-REPRODUCER.

SPECIFICATION forming part of Letters Patent No. 722,776, dated March 17, 1903.

Application filed June 13, 1902. Serial No. 111,438. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM TURES, a citizen of the United States, residing at Granville, in the county of Putnam and State of Illinois, have invented a certain new and useful Improvement in Sound-Reproducers, of which the following is a specification.

My invention relates to sound-reproducers, such as are used in connection with talking-machines. The particular form which I have shown is of course only one of many types or shapes in which my device could be produced. I have shown this single form to illustrate my idea.

Figure 1 shows a plan view of the reproducer with a portion of the record beneath the same. Fig. 2 is an inverted plan view. Fig. 3 is a cross-section on line 3 3, Fig. 2.

Like parts are indicated by the same letter in all the figures.

A is the horn; B, the connecting-piece; C, the standard on which the reproducer is supported.

D is the common or trunk sound-transmitting way.

E, E', E², and E³ are branch sound-transmitting ways which open into the trunkway.

F is a plate on which the several parts are properly mounted.

G G G are diaphragms, each in a shallow cup-like part H, mounted on the plate F. To the center of each is secured the piece J, to which is pivoted the arm J', and this arm is attached to the tip J² on the post J³. To this tip is attached the bearing-point J⁴, which engages the record. The post J³ at its inner end is secured to a piece K, similar to the piece J, which is attached to the inner diaphragm M in the shallow cup-like part N, which is secured also to the plate F and to the plate O. The parts are attached together as indicated, so that they are brought in proper relation, so that each diaphragm is controlled by the action of the point J⁴ and through the medium of the several arms J', post J³, and pieces J J and K. The record is shown at P. Mounted on the body or plate F are the pivoted links R R, each preferably carrying at its outer extremity a weight S S. These links can be swung around on their

pivots, so as to adjust the weight in any desired manner.

The use and operation of my invention will be readily understood by those at all familiar with the art. I use a single point or pin, which may be of any desired shape or size and which travels in a groove on the record. It is arranged on a post mounted, preferably, on the center of a diaphragm, which is preferably mounted in a plane parallel to but different from the plane of the other diaphragms. There is then a series of diaphragms, preferably three, grouped about the post, and to each of these a preferably central attachment is made, from which leads an arm on the post. Thus all the diaphragms are controlled from a single point and in this particular construction from a single post. Each diaphragm is associated with a sound-transmitting way, and these several minor ways open into the common trunkway which leads to the horn.

The several parts may be greatly altered and varied in construction, proportion, position, and relation without departing from the spirit of my invention, and I do not, therefore, wish to be limited to the precise form and construction shown, but desire my illustration to be taken as diagrammatic.

I claim—

A sound-producer comprising a series of diaphragms arranged in close proximity to each other and in the same plane, with a single diaphragm arranged in close proximity thereto but in a different plane, all of said diaphragms parallel with each other, a central post mounted on said single diaphragm and proceeding up between the other diaphragms, laterally-projecting arms lying in a plane parallel to the diaphragms and attached to said post at one end and at the outer end each to a post on one of said group diaphragms and to a point associated with said central post, the system of arms and posts attached only to such diaphragms.

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Witnesses:

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