

Draftsman

No. 849,404.

PATENTED APR. 9, 1907.

H. KOCH.  
MANDREL FOR TALKING MACHINES.  
APPLICATION FILED APR. 23, 1906.

Fig. 1.

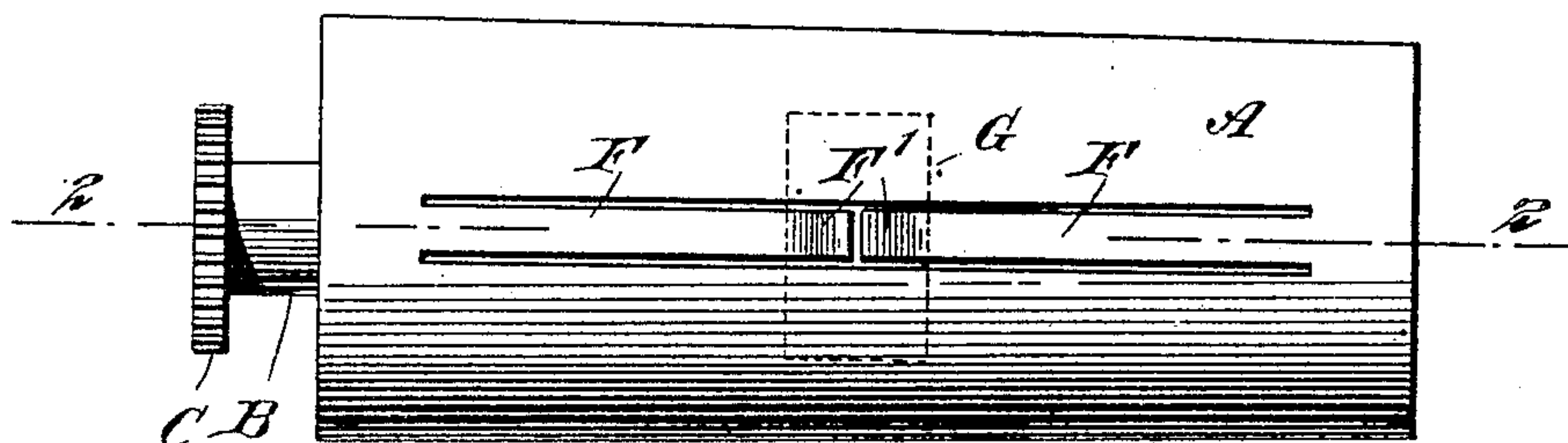
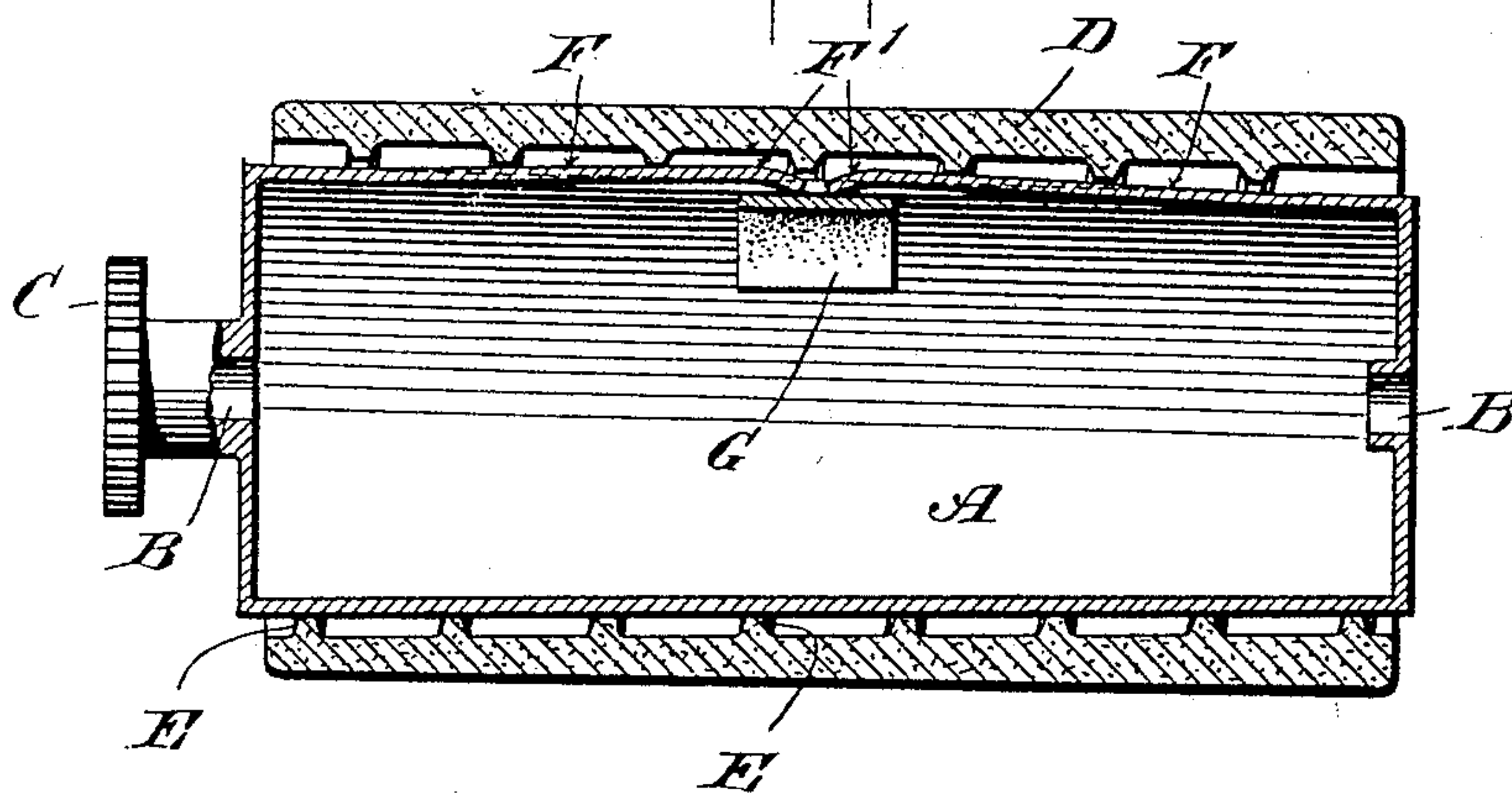


Fig. 2.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

HENRY KOCH, OF RAHWAY, NEW JERSEY, ASSIGNOR TO THE REGINA COMPANY, OF RAHWAY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## MANDREL FOR TALKING-MACHINES.

No. 849,404.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed April 23, 1906. Serial No. 313,107.

*To all whom it may concern:*

Be it known that I, HENRY KOCH, a citizen of the United States, and a resident of Rahway, Union county, State of New Jersey, have invented certain new and useful Improvements in Mandrels for Talking-Machines, of which the following is a specification.

My invention relates to mandrels for supporting cylindrical talking-machine records, and has for its object to provide such mandrels with means for preventing the cracking or destruction of such records when they are left in position on said mandrels for any length of time.

My invention will be fully described hereinafter, and the features of novelty will be pointed out in the appended claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is an outside view of my improved mandrel; and Fig. 2 is a section thereof on line 2 2 of Fig. 1, showing the record in position.

The hollow body A of the mandrel is conical in shape and is provided with the usual end openings B, through which the customary supporting-axle is adapted to pass, which axle may be supported in any convenient manner. A gear C is secured to or forms part of the mandrel and is adapted to mesh with a driving gear-wheel, through the medium of which the mandrel is rotated. The driving mechanism may be of any approved construction and forms no part of my present invention, so that I have not deemed it necessary to show said mechanism.

D is the cylindrical record, which may be provided on its inner surface with spiral projection E, adapted to engage the outer surface of the mandrel. In many cases it becomes necessary to leave the said records in position on the mandrel, and the contraction of the material of which the records are made, due to atmospheric changes, thus often causes said records to crack. In other instances the metal of which the mandrel is constructed will expand and produce the same result. To overcome these objections,

I have provided the body of the mandrel with two resilient members F, the ends of which are slightly curved at F'. A pad of felt or like material G is provided in the inner surface of the mandrel adjacent to the ends F' of the members F. This pad G prevents said ends F' from being forced too far inwardly and at the same time tends to press said ends F' outward against the inner surface of the record, thus aiding in maintaining the natural resiliency of the arms F.

It will be readily seen from the above description that as the record contracts the arms F will yield, and thus prevent any strain on said record. This is also true if the mandrel expands from changes in temperature. If, on the other hand, the record expands, the arms F will follow along and serve to act as a locking means, and thus prevent the record from slipping off the mandrel and also insure its proper rotation when the machine is operated. The same remarks of course apply if the mandrel shrinks or contracts. Any slight variation in the inside diameter of different records will thus also be rendered of no consequence, and machines equipped with my improved mandrel will accommodate records of varying sizes and insure the perfect operation of all of them. The arms F also act as a key or spline and prevent the slipping of the record as the mandrel is rotated. In other words, the record when in position on the mandrel is incapable of rotation relatively to the mandrel.

With my improved construction the mandrel might be cylindrical instead of conical, and the inner diameter of the records might also be uniform throughout, thus making the parts more easy to manufacture than otherwise.

Various modifications may be made without departing from the nature of my invention as defined in the appended claims.

I claim—

1. A talking-machine mandrel provided with two yielding members extending toward each other with their ends adjacent for maintaining the record in position.



2. A talking-machine mandrel provided with a plurality of yielding members extending lengthwise of the mandrel with their free ends adjacent to each other for maintaining  
5 the record in position.

3. A talking-machine mandrel provided with a yielding member projected from the curved surface of the mandrel for maintaining the record in position and means adja-

cent to the free end of the member for limiting the inward movement thereof.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY KOCH.

Witnesses:

T. J. MACDONALD,  
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