T. A. EDISON.

PHONOGRAPH.

No. 397,706.

Patented Feb. 12, 1889.

**Fig. 1.**

**Fig. 2.**

WITNESSES:

T. A. Edison

INVENTOR

BY

ATTORNEYS.
To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Llewellyn Park, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Phonographs, (Case No. 808,) of which the following is a specification.

The object of my invention is to permit of the use upon the tapering phonogram-cylinder of the phonograph of slightly-tapering or true cylindrical phonograms, such as paper cylinders covered with indenting material. I accomplish this by the use of a false shell having a substantially cylindrical shape, but with a tapering bore adapted to fit upon the tapering phonogram-cylinder, and preferably with a slight taper upon its external surface to enable it to receive a slightly-tapering phonogram-blank.

My invention is illustrated in the accompanying drawings.

Figure 1 is a front elevation of a phonogram-cylinder with a false shell and phonogram-blank placed thereon according to my invention, and Fig. 2 is an elevation of the phonogram-cylinder and longitudinal section of the false shell and phonogram-blank.

A is the ordinary tapering revolving phonogram-cylinder of a phonograph, and B indicates a portion of the shaft which carries it.

C is the false shell, which is preferably made of metal, and which has a tapering bore, as shown, so that it is adapted to fit upon the tapering cylinder A. The outer surface of the false shell C is also tapered, but to a less degree than is its inner surface.

D represents the phonogram-blank, having a slightly-tapered bore, which may be a covered paper cylinder, the method of making which is described in my application No. 807, filed October 11, 1888, Serial No. 287,845.

It will be seen that the phonogram-blank D may be readily placed and held upon the false shell C, and that the false shell can then be slipped upon the phonogram-cylinder A, and the phonogram-blank D may then be used for recording or reproducing sound. It will be seen, also, that the use of the false shell makes it possible to employ with the same phonograph either the considerably-tapered wax or other cylinders which have heretofore been commonly used or the slightly-tapered paper or other cylinders above described.

What I claim is—

1. The combination, with a phonogram-cylinder, of a false shell for receiving the phonogram-blank, substantially as set forth.

2. The combination, with a tapering phonogram-cylinder, of a false shell having a tapering bore for receiving a phonogram-blank, substantially as set forth.

3. The combination, with a phonogram-cylinder, of a false shell having a tapering bore, and a less tapering outer surface for receiving the phonogram-blank, substantially as set forth.

4. The combination, with a tapering phonogram-cylinder, of a false shell having a tapering bore and a less tapering outer surface, and a phonogram-blank having a slightly-tapering bore, substantially as set forth.

This specification signed and witnessed this 29th day of September, 1888.

THOS. A. EDISON.

Witnesses:

WILLIAM PELZER,
E. C. ROWLAND.