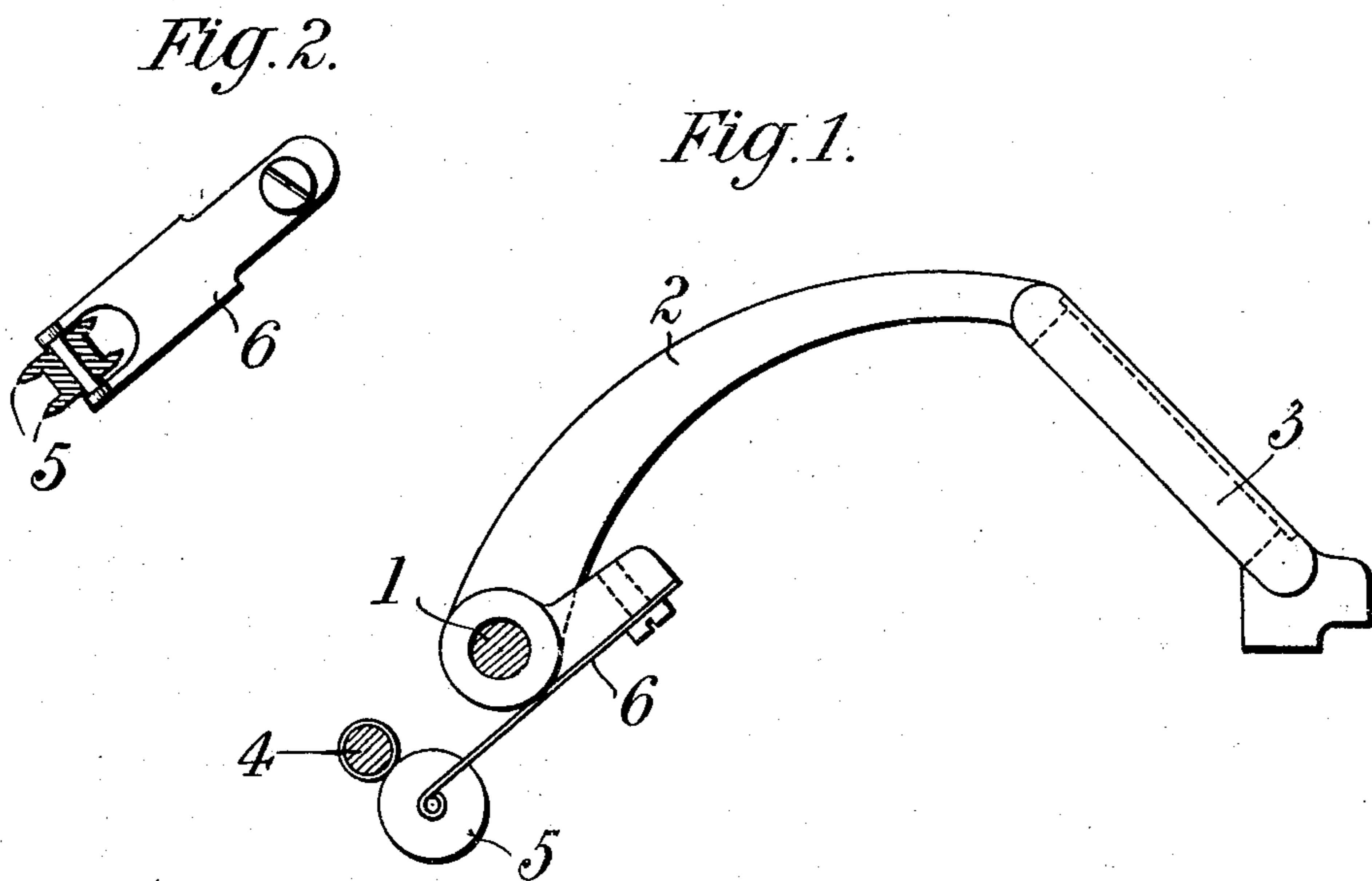


No. 861,827.

PATENTED JULY 30, 1907.

C. G. GARRARD.
PHONOGRAPH, GRAPHOPHONE, &c.
APPLICATION FILED FEB. 1, 1907.



WITNESSES.

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UNITED STATES PATENT OFFICE.

CHARLES GEORGE GARRARD, OF LONDON, ENGLAND, ASSIGNOR TO EDISON-BELL CONSOLIDATED PHONOGRAPH COMPANY LIMITED, OF LONDON, ENGLAND.

PHONOGRAPH, GRAPHOPHONE, &c.

No. 861,827.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed February 1, 1907. Serial No. 355,295.

To all whom it may concern:

Be it known that I, CHARLES GEORGE GARRARD, a subject of His Majesty the King of Great Britain, residing at London, England, have invented a certain new and useful Improvement in Phonographs, Graphophones, and the Like, of which the following is a specification.

This invention relates to phonographs, graphophones and the like and particularly to the driving mechanism thereof with the object of effecting certain improvements therein.

It has hitherto been the practice to traverse the stylus upon the blank or record by providing the arm which carries said stylus with a half nut adapted to engage the feeding screw, whereby the revolution of the latter causes the half nut to travel from end to end thereof in the well known manner. The employment of a half nut however is found to be objectionable on account of the excessive amount of friction set up between it and the feeding screw, and the object of the present invention is to substitute for the half nut a revoluble device which will engage the threads of the positively driven feeding screw and revolve while traveling thereover thereby lessening the friction between the two parts. A convenient means for effecting this purpose is to mount in any convenient position upon the stylus-carrying arm and by any suitable means a revoluble disk or disks having its, or their, peripheral edge, or edges, shaped or formed so as to engage readily with the threads upon the feeding screw, whereby when the latter is revolved the disk or disks will also revolve and at the same time travel lengthwise of the feeding screw carrying the arm and stylus with it in the well understood manner.

In place of the disk or disks, a roller having one or more grooves of a pitch corresponding to that of the screw, may be used, or any other revoluble attachment to the arm may be employed having a like purpose and effect.

In the accompanying drawings:—Figure 1 is an end

elevation of so much of a phonograph as is necessary to illustrate the present invention, and Fig. 2 is a detached view of one form of revoluble device adapted to engage with the feeding screw.

In said drawings 1 is the plain shaft pivotally carrying the stylus arm 2 on which is the usual diaphragm 3 carrying the stylus while 4 is the positively driven feeding screw with which is adapted to engage a pair of disks 5 rotatably mounted on arm 6 which is secured to arm 2. As seen a pair of disks are employed but it is obvious that a single or several disks may be employed or a roller having one or more grooves of a pitch corresponding to the thread of the leading screw may be equally well employed.

What is claimed is:—

1. In phonographs, graphophones and the like, the combination of a positively driven feeding-screw, a stylus-carrying arm to be moved by said feeding-screw, and a disk rotatably mounted upon said arm and adapted to be engaged with and rotated by said feeding-screw during the feeding operation.

2. In phonographs, graphophones and the like, the combination of a positively driven feeding-screw, a stylus-carrying arm pivotally mounted adjacent to said feeding-screw, and a revoluble device carried by said arm adapted to be engaged with and rotated by said feeding-screw during the feeding operation, and to be disengaged therefrom, whereby said arm may be returned to its starting position.

3. In phonographs, graphophones and the like, the combination of a positively driven feeding-screw, a shaft arranged parallel with said feeding-screw, a stylus-carrying arm pivotally mounted upon said shaft, and a revoluble device carried by said arm and adapted to be engaged with and rotated by said feeding-screw to move said arm in one direction, and to be disengaged from said feeding-screw, whereby said arm may be returned to its starting position.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES GEORGE GARRARD.

Witnesses:

PERCY WILLIS,

FREDRICH WILLIAM PLEASANCE.