

No. 707,749.

Patented Aug. 26, 1902.

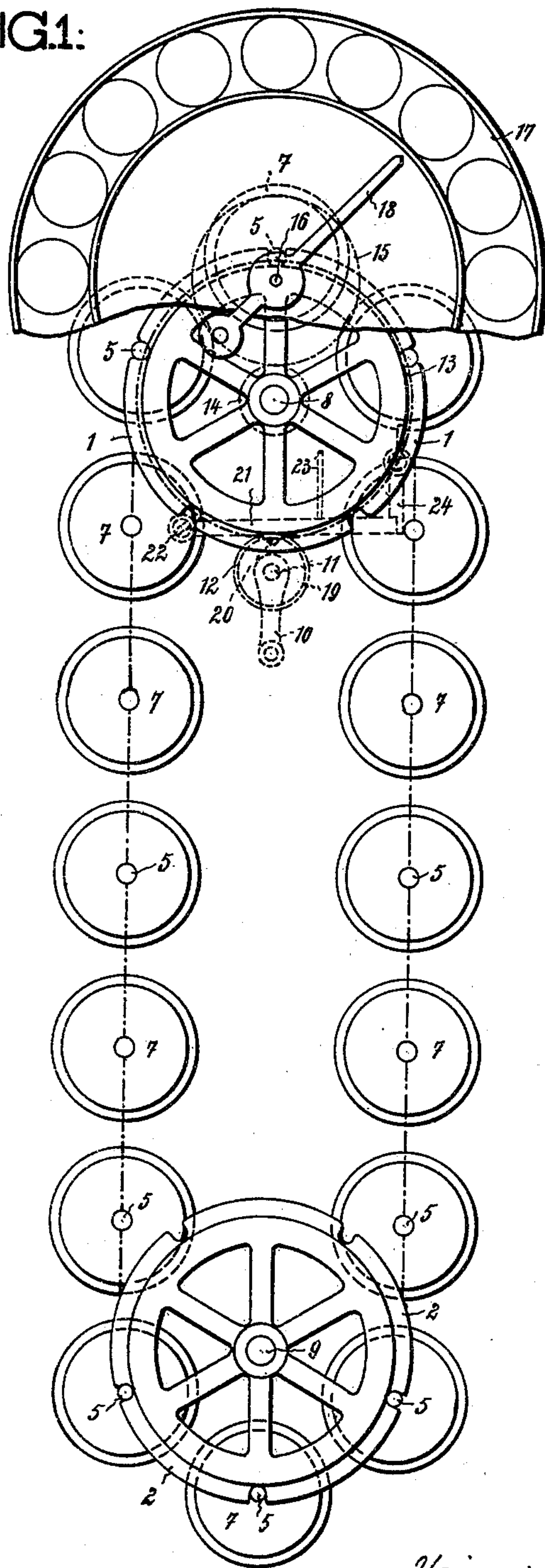
H. WINKELMANN.  
PHONOGRAPH.

(Application filed Nov. 19, 1901.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1.



Witnesses:  
Edward Ray.  
William Schulz.

Inventor:  
Heinrich Winkelmann  
by his attorneys  
Roeder & Brien

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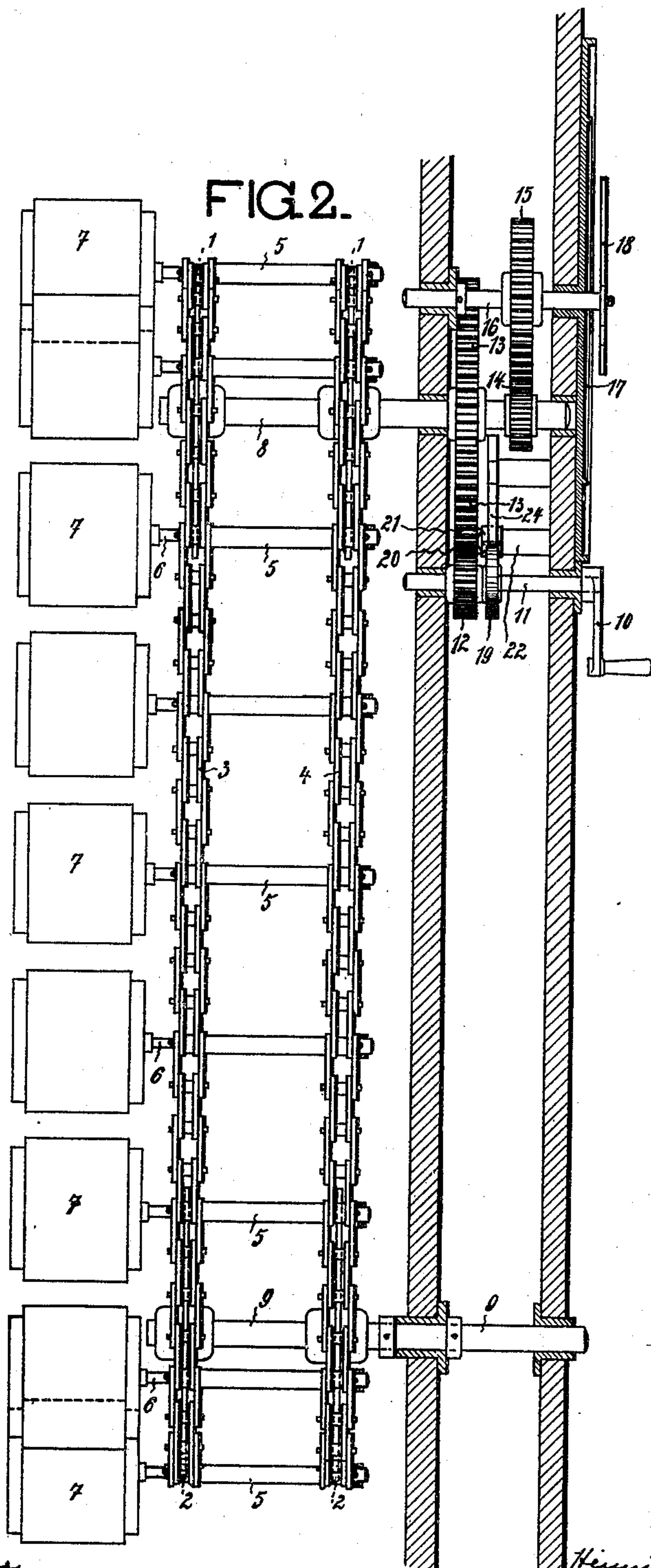
H. WINKELMANN.  
PHONOGRAPH.

Patented Aug. 26, 1902.

(Application filed Nov. 19, 1901.)

(No Model.)

2 Sheets—Sheet 2.



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# UNITED STATES PATENT OFFICE.

HEINRICH WINKELMANN, OF BREMEN, GERMANY.

## PHONOGRAPH.

SPECIFICATION forming part of Letters Patent No. 707,749, dated August 26, 1902.

Application filed November 19, 1901. Serial No. 82,938. (No model.)

*To all whom it may concern:*

Be it known that I, HEINRICH WINKELMANN, a citizen of the Hanse town of Bremen, residing at 51 Knochenhauerstrasse, Bremen, in the Empire of Germany, have invented new and useful Improvements in and Relating to Phonographs, of which the following is a specification.

This invention relates to an improved phonograph, and more particularly to improved means for mounting the record-cylinders, so that they may be readily brought into their operative position and interchanged.

In the accompanying drawings I have shown by way of example a constructional form of the apparatus forming the subject of my said invention.

Figure 1 is a side elevation of the same; and Fig. 2, a front elevation, partly in section.

The two endless chains 3 and 4, running parallel to each other, are guided over pairs of wheels 1 and 2, each pair of these wheels being arranged upon a shaft 8 or 9, firmly held in the casing of the phonograph. The journals 6, on which the cylinders 7 are slid, form one-sided prolongations of bolts 5, connecting the chains, and which, in lieu of the ordinary joint-bolts, are placed at distances apart corresponding to the thickness of the cylinders.

For moving the cylinders into their operative position, use is made, for instance, of a crank 10, provided on the outside of the casing and arranged at the end of a shaft 11, by which the turning movement is transmitted through toothed wheels 12 13 to the chain-wheel shaft 8. In the constructional example shown it is supposed that one revolution of the crank corresponds to the distance between the centers of two neighboring cylinders 7, so that at every revolution of the crank the following cylinder will be conveyed into the operative position. From the shaft 8 the rotary movement is transmitted through toothed wheels 14 15 to shaft 16. An index 18, carried by this shaft, moves outside in front of a dial 17, upon which the numbers of the cylinders and the records on such cylinders are indicated. The wheels are of such sizes that one revolution of the index 18 corresponds to a complete turn of the chains 3 4. Of course the cylinders are held by the chains in the same order as the titles of the records on the dial 17, and both arrangements corre-

spond to each other, so that when the index points to a certain title the cylinder placed in the operative position bears the record indicated thereby.

In Fig. 1 is shown a stopping device designed to prevent the turning movement of the crank 10 on the running-gear of the phonograph being disengaged. Upon the crank-shaft 11 is arranged a stop-disk 19, having in its periphery a notch with which in the position of rest of the crank, Fig. 1, the corresponding projection 20 on a one-armed lever 21 engages. This lever swings about a journal 22, and in the raised position, as soon as its projection 20 bears upon the periphery of the disk 19, when the crank 10 is turned arrests the running-gear of the phonograph by an arm 23. When the projection 20 engages with the notch in the disk 19, the lever 21 is stopped by a pawl 24 falling over its free end, and which on the insertion of a coin is disengaged before the running-gear of the phonograph.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A phonograph provided with a pair of endless chains, a series of connecting-bolts extending with one end laterally beyond the chains, and with cylinders mounted upon such laterally-projecting bolt ends, substantially as specified.

2. A phonograph provided with a pair of endless chains, a series of connecting-bolts extending with one end laterally beyond the chains, cylinders mounted upon the laterally-projecting bolt ends, a crank-shaft for rotating the chains, and an index intergeared with the crank-shaft, substantially as specified.

3. A phonograph provided with a pair of endless chains, a series of connecting-bolts extending with one end laterally beyond the chains, cylinders mounted upon the laterally-projecting bolt ends, a crank-shaft for rotating the chains, a notched disk mounted upon said shaft, a lever having a projection adapted to engage the disk, and an arm on the lever adapted to arrest the running-gear of the phonograph, substantially as specified.

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

HEINRICH WINKELMANN.

Witnesses:

F. A. BRYCE,  
S. HOYERMANN.