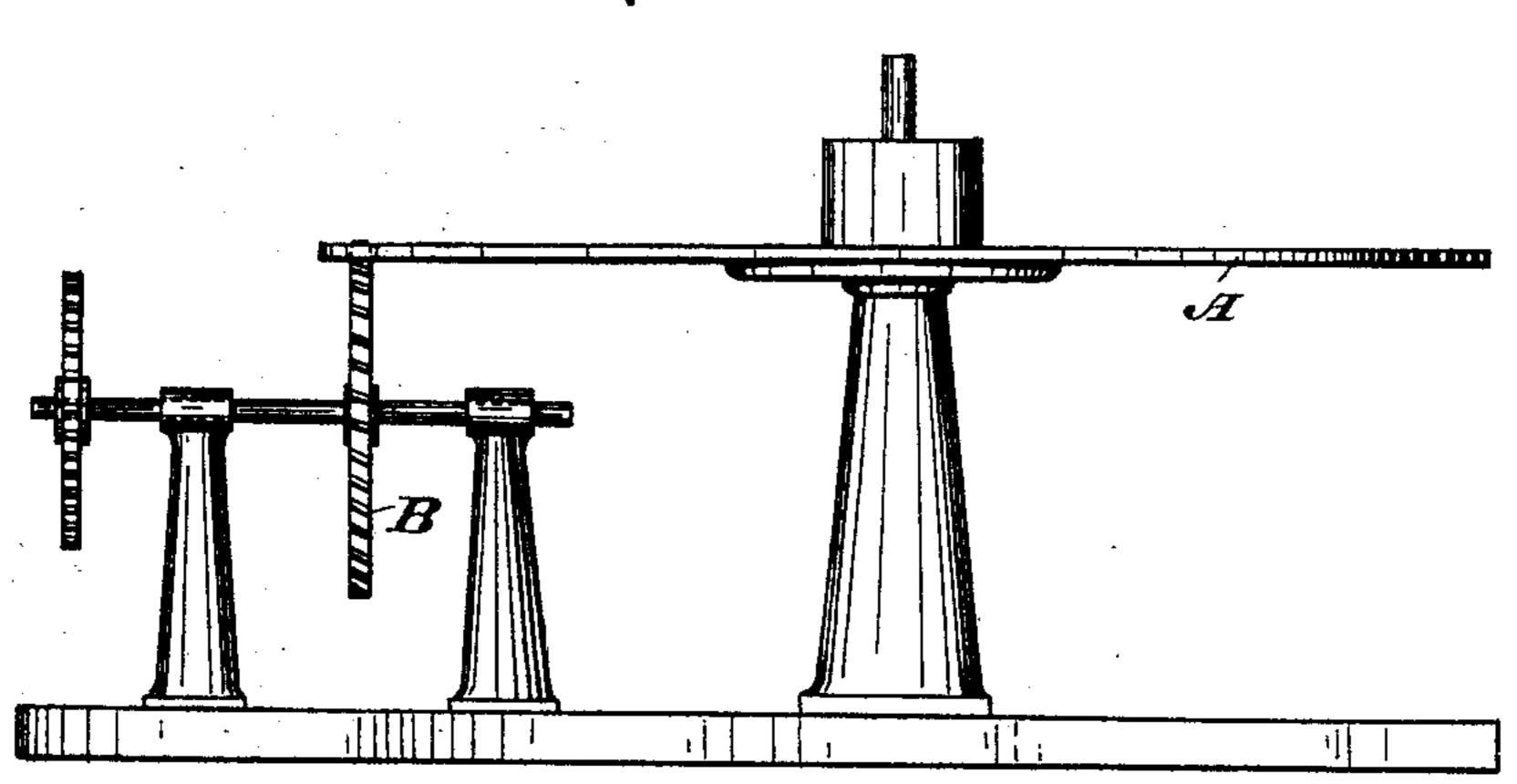
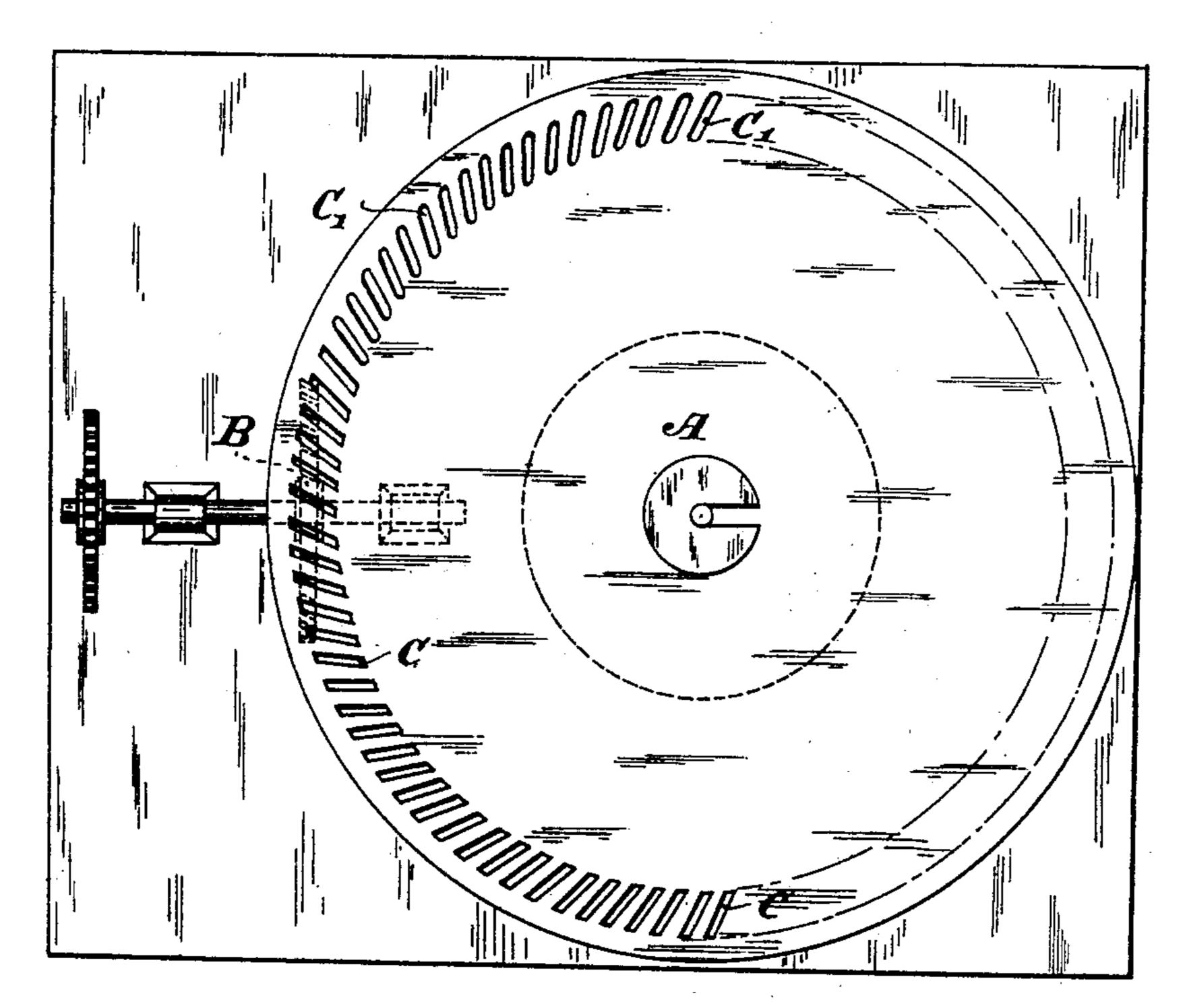
E. MALKE.
NOTE SHEET.

No. 598,323.

Patented Feb. 1, 1898.







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Atthur Tembe

Inventor:

Ernst Malke

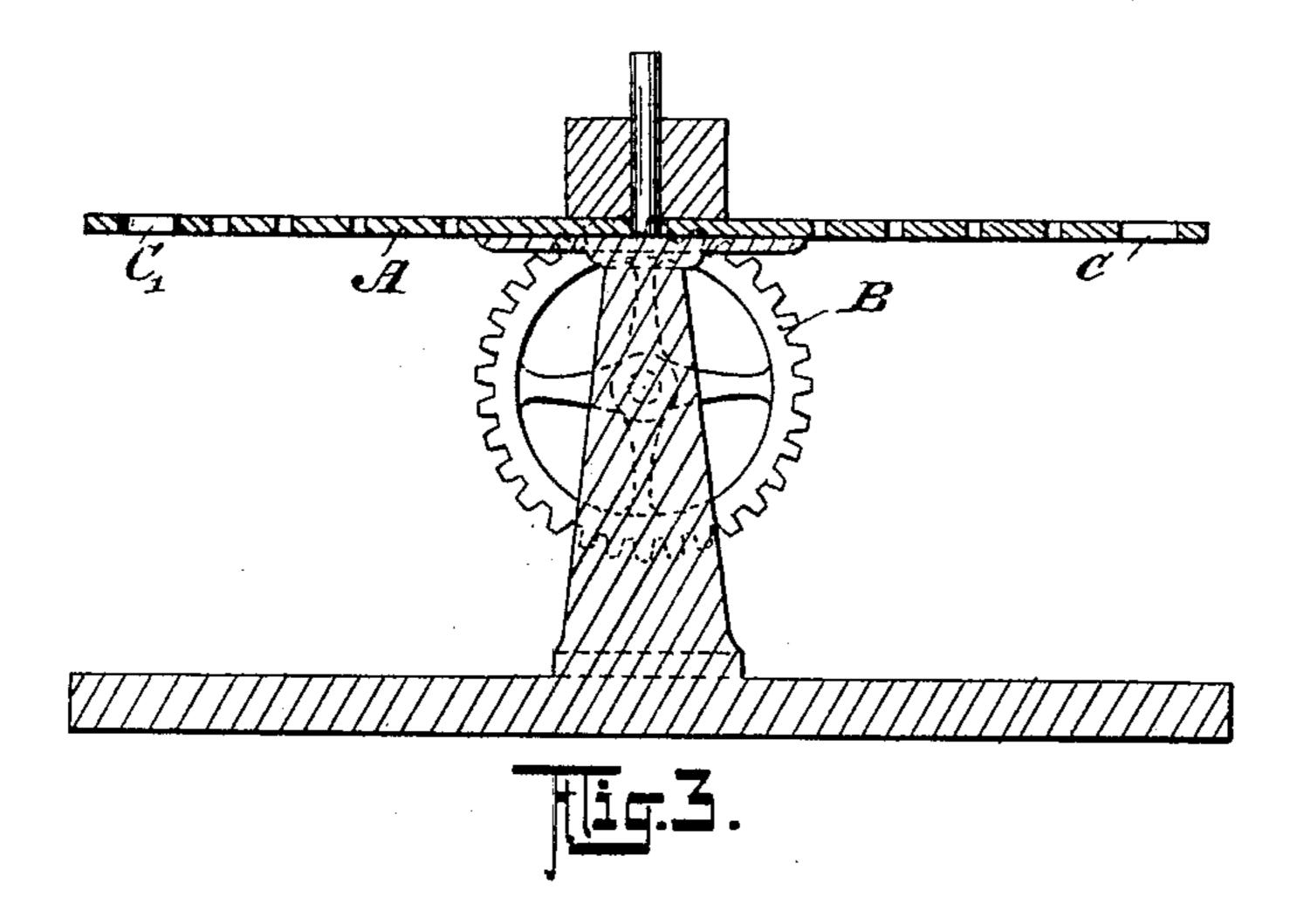
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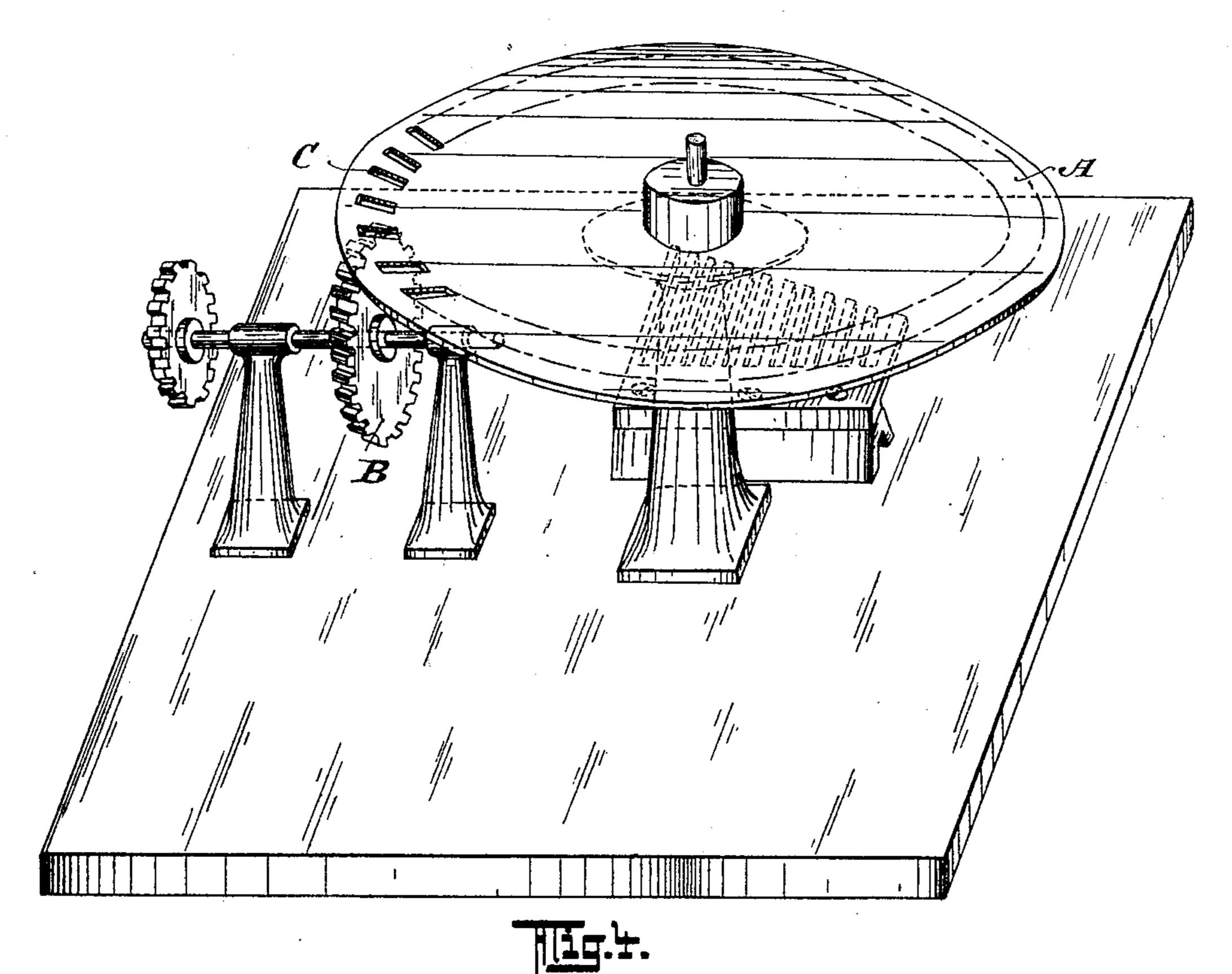
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Wilnesses:

Arthur Temke

Inventor.

Ernst Malke

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## United States Patent Office.

ERNST MALKE, OF LEIPSIC, GERMANY.

## NOTE-SHEET.

SPECIFICATION forming part of Letters Patent No. 598,323, dated February 1, 1898.

Application filed January 4, 1896. Serial No. 574,401. (No model.)

To all whom it may concern:

Be it known that I, ERNST MALKE, a subject of the King of Saxony, residing at Leipsic, Saxony, Germany, have made a new and useful Improvement in Note-Sheets, of which the following is a clear and exact specification.

The present invention relates to metal note sheets or disks for mechanical musical instruno ments; and it consists in providing the same with perforations of a novel kind in order to effect the transport of such disks.

Hitherto note-disks have been provided with round or other shaped perforations, which have been arranged radial to the periphery of the said disk, such disks possessing the disadvantage that only one tooth of the transporting-wheel can enter the disk at a time and that this very often fails to enter at the proper moment, thus rendering the playing of the instrument imperfect.

The object of the present invention is to produce a cam action between the disk and the driving-gear, and this object is attained in the following manner, reference being had to the accompanying drawings, in which similar letters of reference denote similar parts throughout the several views.

Figure 1 is a side elevation, and Fig. 2 a plan, of a disk made according to the present invention; and Fig. 3 a vertical section, and Fig. 4 a perspective view, of the works.

In the present case the disk A engages the driving-gear B by means of a series of slots C, arranged around its periphery, but not radially to the same, said slots being tangen-

tially arranged. Such slots may be rounded off at their ends, as shown at C', or may be sharp-cornered, as shown at C. By this means it will be obvious that a cam action will take 40 place between the teeth of the driving-gear B and the slots C or C' of the note-disk A.

Another advantage of the present invention is that the teeth of the driving-gear will slide along the slots, contacting with the 45 same at all points, so that the one-sided wearing of the disks, as hitherto noticed, will no longer take place, and the same will consequently be rendered more durable. The main point in connection with the present arrangement is that at least three of the teeth of the driving-gear will always be in engagement with the corresponding slots of the disk, so that the next coming teeth will be regularly guided into their respective slots and no slip 55 can occur.

I claim as my invention—

A note-disk in which the circular or radially arranged transport-orifices are avoided, said disk having around its rim a series of slots 60 arranged slantingly and approximately tangentially to an imaginary circle drawn within the disk and concentrically to the same in the manner and for the purpose substantially as described.

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

ERNST MALKE.

Witnesses:

RUDOLPH FRICKE, OTTO DOEDERLEIN.