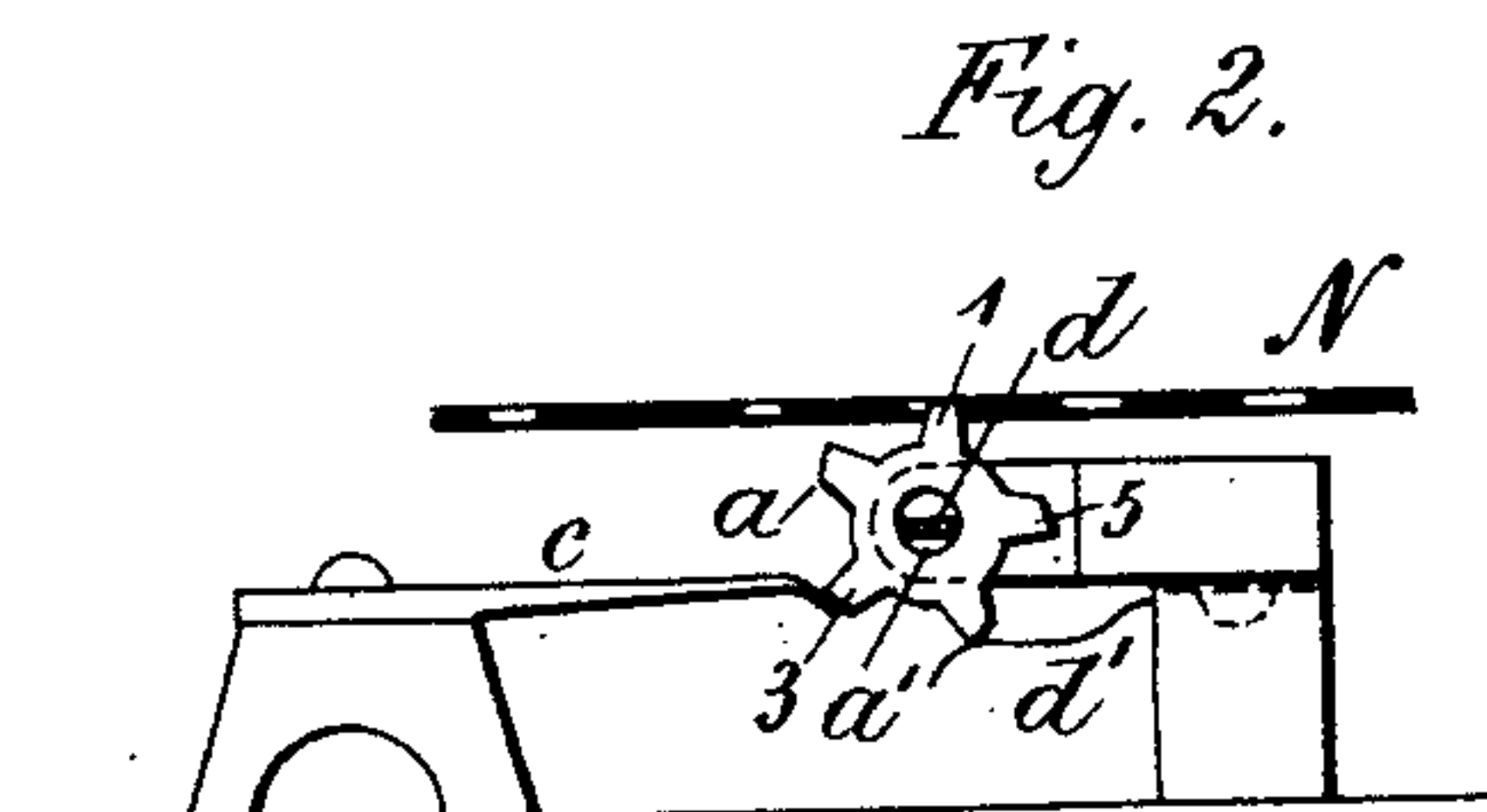
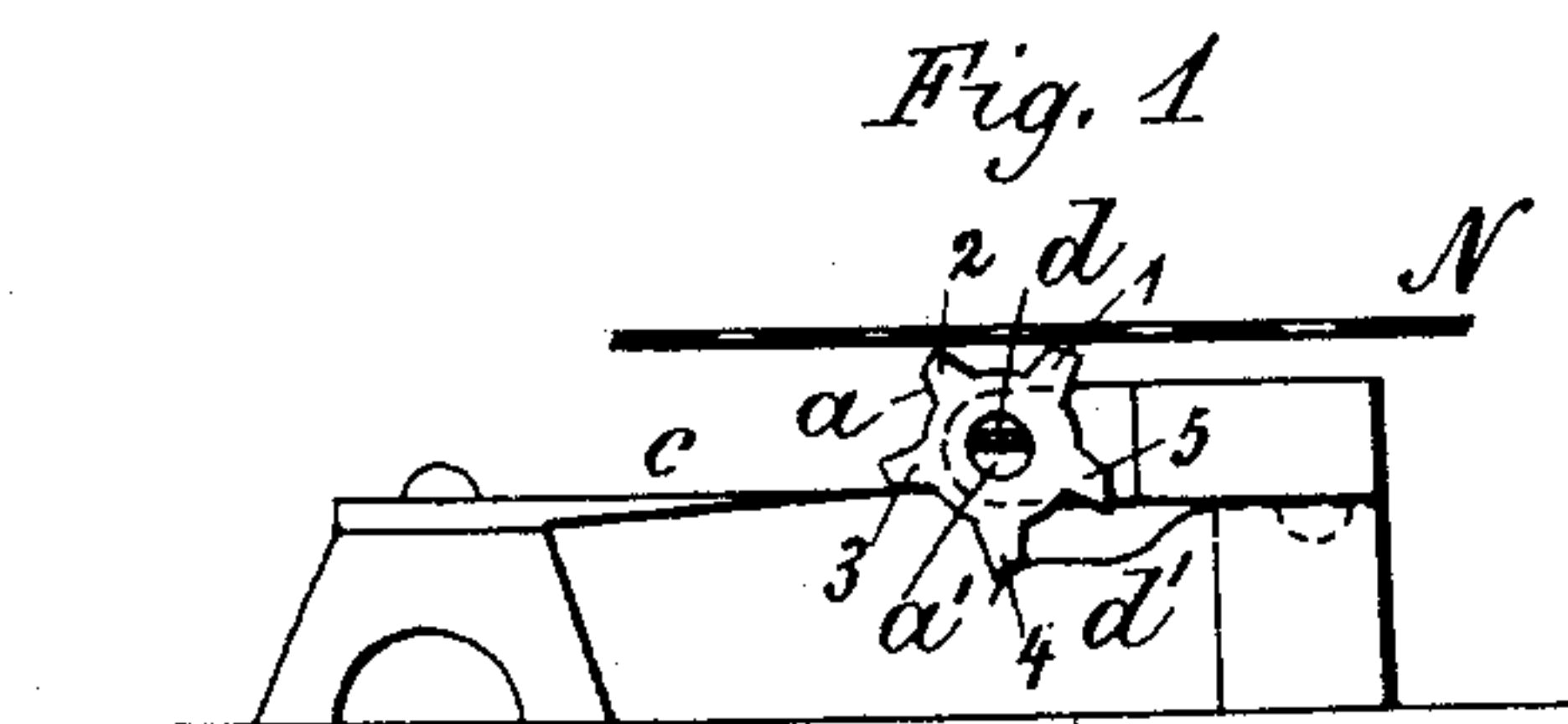


(No Model.)

O. P. LOCHMANN.
MECHANICALLY PLAYED MUSICAL INSTRUMENT.

No. 510,351.

Patented Dec. 5, 1893.



Witnesses
[Signature]
[Signature]

Inventor
Oskar Paul Lochmann
per Heinrich Lade
Attorney

UNITED STATES PATENT OFFICE.

OSKAR PAUL LOCHMANN, OF LEIPSIC-GOHLIS, GERMANY.

MECHANICALLY-PLAYED MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 510,351, dated December 5, 1893.

Application filed July 24, 1893. Serial No. 481,368. (No model.)

To all whom it may concern:

Be it known that I, OSKAR PAUL LOCHMANN, a subject of the King of Saxony, and a resident of the city of Leipsic-Gohlis, in the Kingdom of Saxony, Germany, have invented certain new and useful Improvements in Mechanically-Played Musical Instruments; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in mechanically played musical instruments of the kind that are constructed with steel sounding tongues or teeth and are provided with perforated note sheets, the note perforations having the form of ordinary holes, and the object of the invention is to enable the note sheet having perforations of the said simple form to actuate the striking wheels direct so as to cause the teeth of these to strike the sounding tongues. This object is attained by the mechanism shown in the accompanying drawings, in which—

Figures 1 and 2 are sectional views of the same in two different positions.

a is a striking wheel, c a steel sounding tongue of the music works, and N the note sheet having ordinary holes for note perforations. Striking wheel a in common with all the other striking wheels of the music works is mounted on a rod d in such a way that in addition to its rotary motion it can only perform, on its rod d , a vertical movement to and from the note sheet. This effect is obtained by making rod d of a rectangular horizontally thin cross section, the flat sides being a little narrower than the bore a' of striking wheels a , which, mounted in this manner may be moved vertically up and down on rod d to an extent sufficient for the engagement of their teeth in, and disengagement from the note sheet while their displacement in any other direction is limited to a minimum. Fixed underneath the bar on which rod d is carried there is a spring d' which keeps the striking wheel pressed against the note sheet so that this latter may slide over the teeth of the wheel. When, upon the forward travel of the note sheet a note perforation arrives over a tooth—tooth 1 for example—said tooth in consequence of striking wheel a being moved upward on its rod by the action of

spring d' will enter such perforation. Upon the further forward travel of the note sheet, tooth 1 is carried with it thereby turning striking wheel a round on its axis so that tooth 3 strikes steel tongue c . Tooth 1 is then slid or pressed out of the perforation in the note sheet, striking wheel a being at the same time pressed downward and so turned round that tooth 5 is brought to bear against the note sheet and owing to the pressure of spring d' against the wheel, caused to spring into the first note perforation that arrives over it.

A striking mechanism in which the striking wheels are also actuated direct by the note sheet provided with perforations of the form of ordinary holes has already been described by me in a specification accompanying an application for Letters Patent, but in that mechanism the striking wheels are mounted on a circular rod with play, so as to turn and be radially displaceable thereon by reason of the bore of the striking wheels being larger than the rod. This arrangement had the disadvantage that the striking wheels in addition to the desired movement perpendicular to the note sheet could also easily perform a lateral or radial movement which had a disturbing effect on the action of the instrument. It was therefore desirable to suppress such lateral movement and I now attain this end by means of a striking wheel rod of a thin rectangular cross sectional form with its horizontal sides slightly narrower than the diameter of the bore of the striking wheels.

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

In music works with steel sounding tongues and perforated note sheet a striking wheel a mounted to turn on a rod d and to be displaceable thereon in a vertical direction, said rod d being of a thin rectangular cross sectional form with its horizontal sides slightly narrower than the diameter of the bore a' , in combination with a spring d' , for the purpose specified, substantially as described and shown.

In testimony whereof I sign this specification in the presence of two subscribing witnesses.

OSKAR PAUL LOCHMANN.

Witnesses:

MAX LOCHMANN,
M. DIEDERICH.