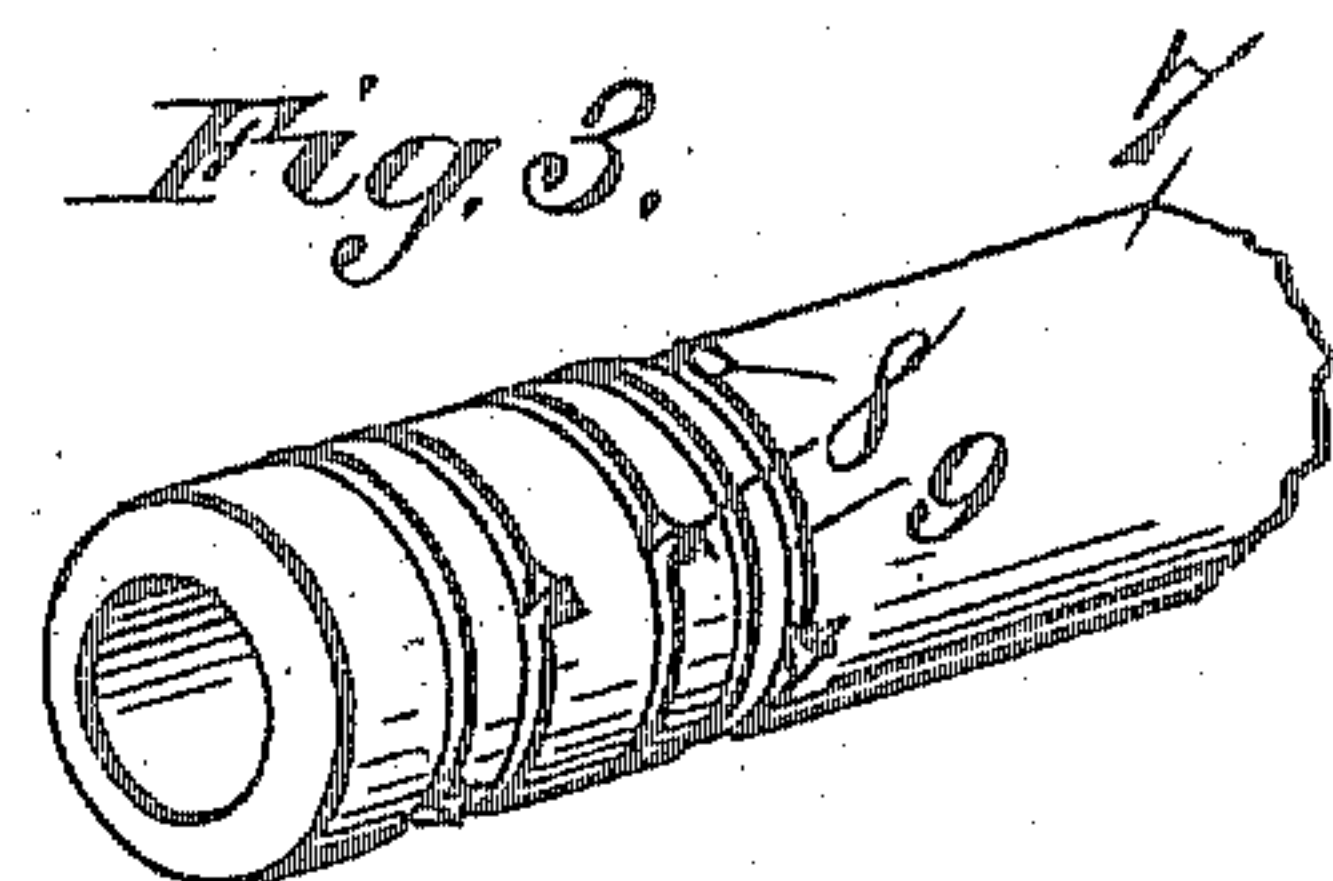
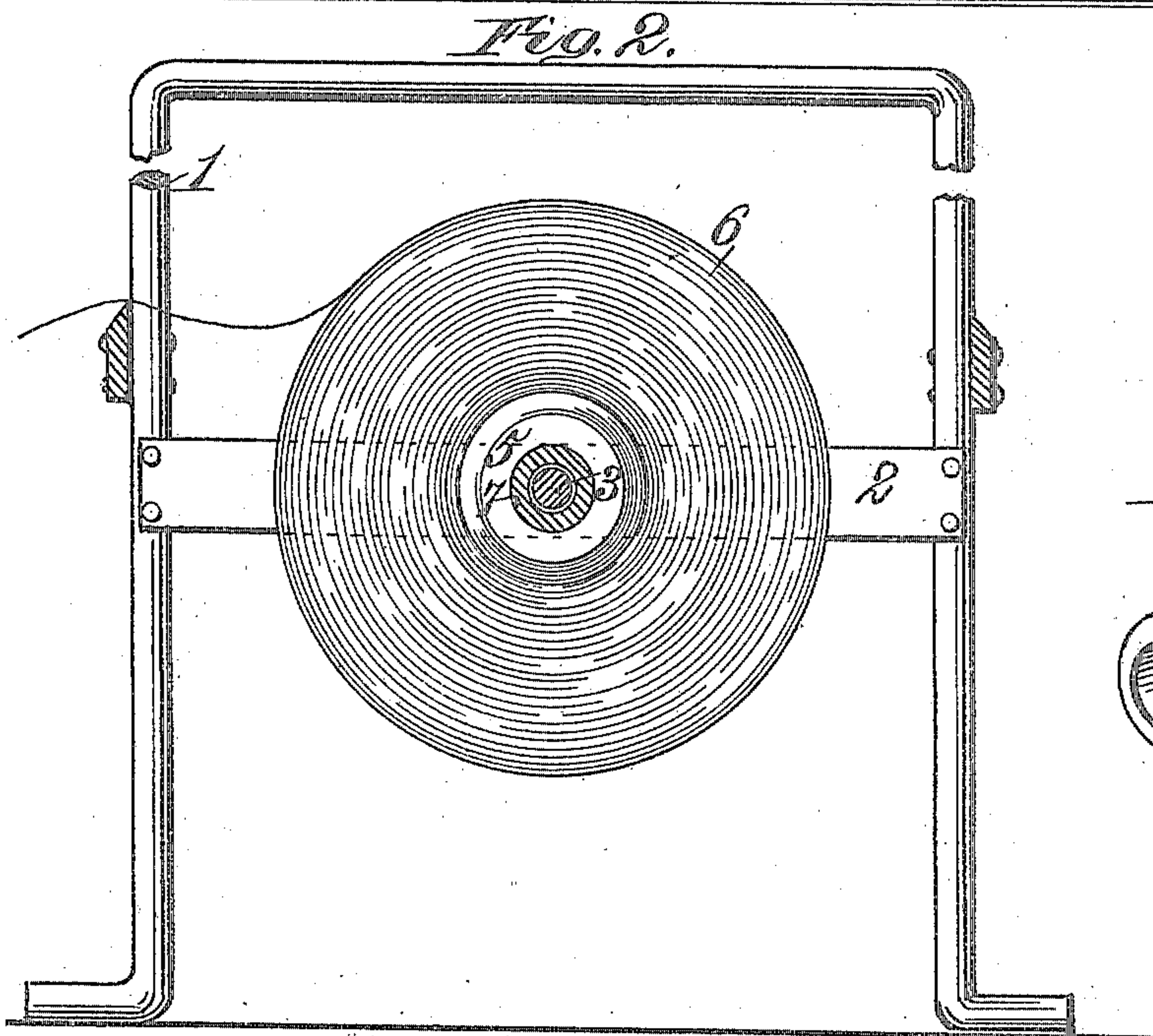
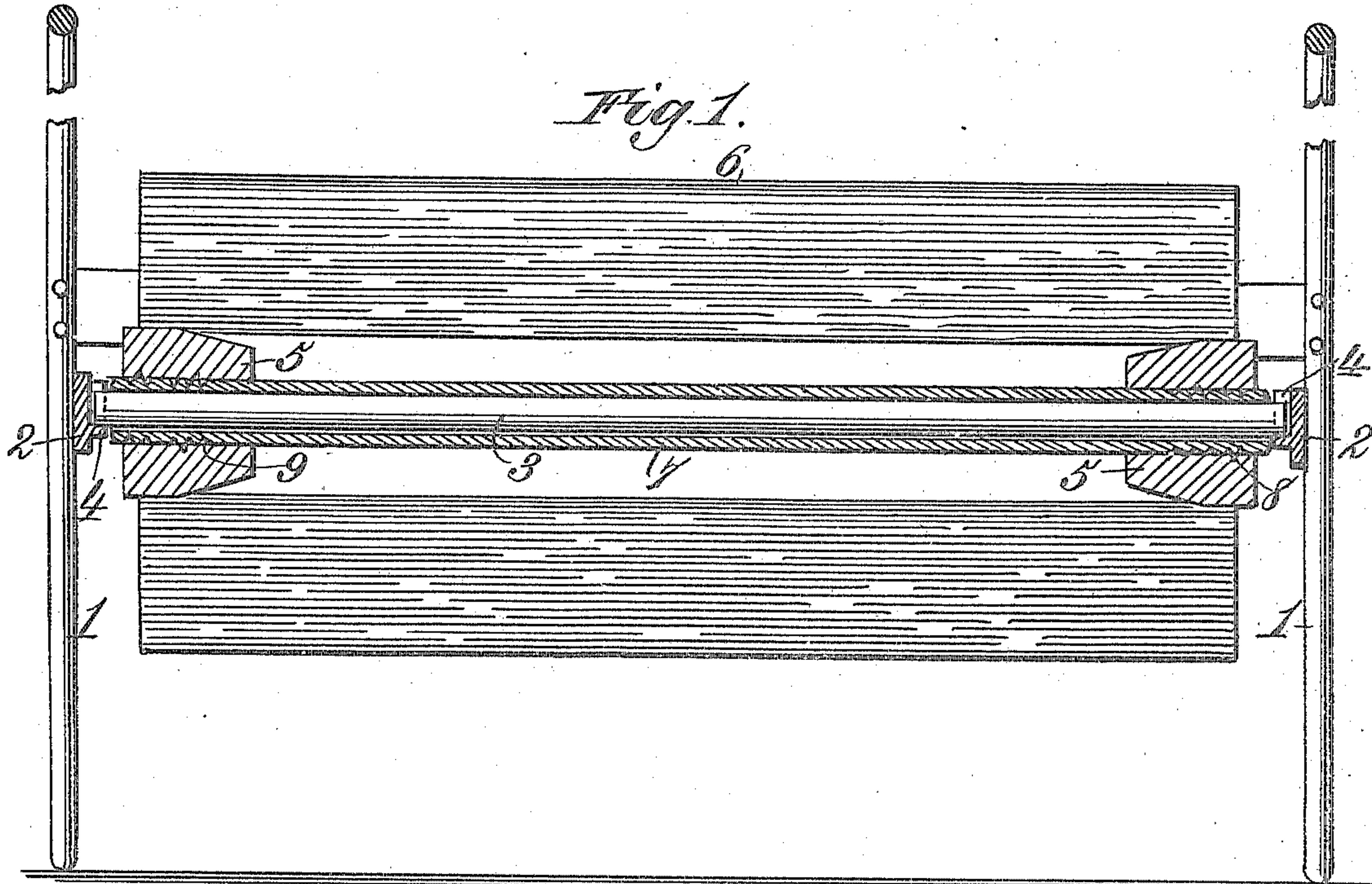


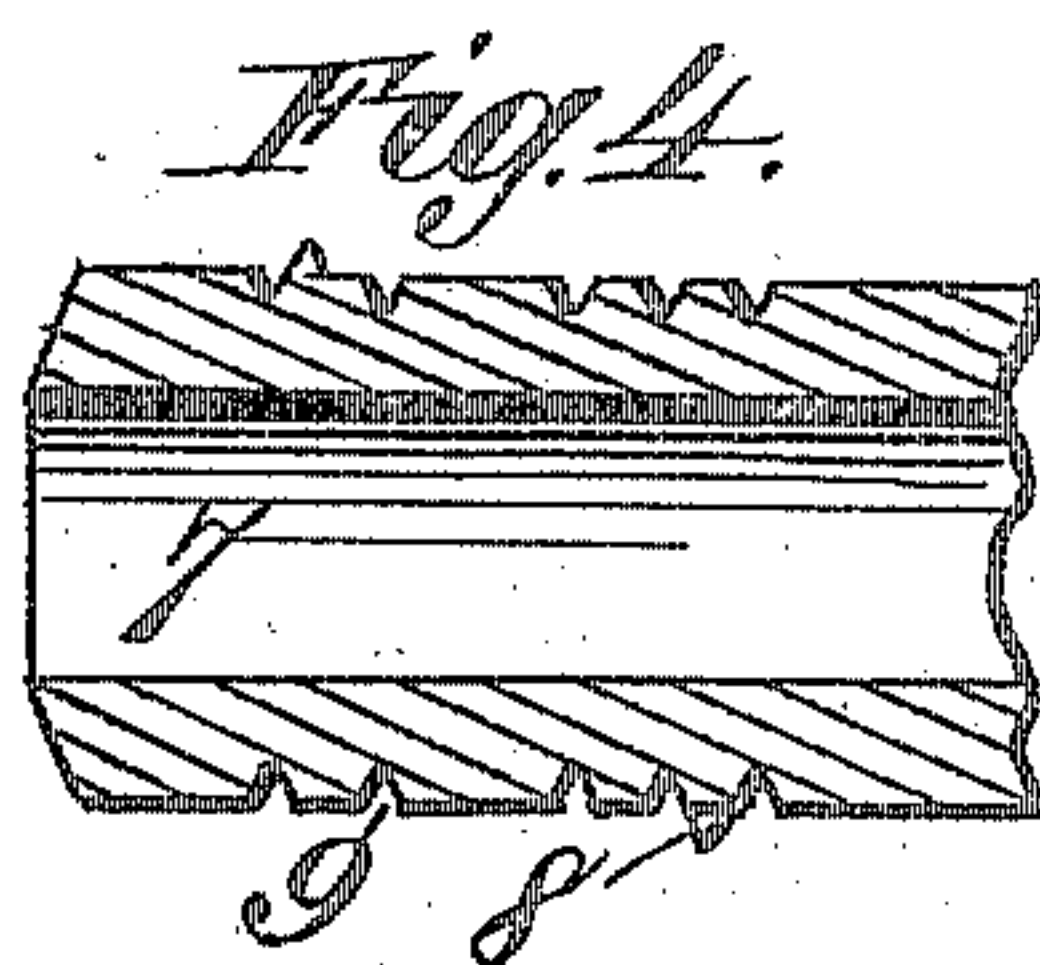
W. H. HOELL.  
PAPER ROLL HOLDER.  
APPLICATION FILED JUNE 5, 1909.

947,630.

Patented Jan. 25, 1910.



Witnesses:  
Robert Emmett,  
*[Signature]*



Inventor:  
William H. Hoell.  
By *James L. Norris*  
*[Signature]*



# UNITED STATES PATENT OFFICE.

WILLIAM H. HOELL, OF GRAND CANE, LOUISIANA.

## PAPER-ROLL HOLDER.

947,630.

Specification of Letters Patent.

Patented Jan. 25, 1910.

Application filed June 5, 1909. Serial No. 500,363.

*To all whom it may concern:*

Be it known that I, WILLIAM H. HOELL, a citizen of the United States, residing at Grand Cane, in the parish of De Soto and State of Louisiana, have invented new and useful Improvements in Paper-Roll Holders, of which the following is a specification.

This invention relates to new and useful improvements in paper roll holders and it relates more particularly to a roll holder of that type in which conical end bushings are employed to center the roll on the core rod.

The invention resides more particularly in the provision of novel means to hold the bushings against axial play with respect to the core rod, in order that the accurate centering of the roll may be always maintained and in order that the roll may consequently be easily rotated and without any mutilation or irregular cutting of the edges thereof.

In the accompanying drawings I have illustrated a preferred and advantageous embodiment of the invention.

In the said drawings: Figure 1 is a side elevation of a roll holding frame, showing the novel parts of the roll holder in longitudinal section. Fig. 2 is a cross section of the frame and roll holder. Fig. 3 is a detail perspective view showing the end formation of the spindle which surrounds the core rod. Fig. 4 is a detail longitudinal sectional view showing the end formation of said spindle.

Similar characters of reference designate corresponding parts throughout the several views.

The supporting frame, as 1, may be of any desired form and, as shown, includes end bars, as 2, having provision for supporting a core rod 3, the ends of the latter being removably fitted in slotted brackets, as 4, which are secured to the bars 2.

The end bushings are designated by the numeral 5 and are fitted in the ends of the central opening of the paper roll 6 to center the same with respect to the core rod, in the usual manner.

The novel means for holding the end bushings against axial play comprises a hollow

spindle, as 7, which rotatably surrounds the core rod and which has its end portions passed through the central openings of the bushings 5 and abutting the brackets 4, which thereby hold the spindle against axial play, the latter in turn holding the bushings against axial play. For this purpose the spindle has its end portions constructed with projecting spurs, as 8, which may be formed thereon in any suitable manner. As shown and preferred, the end portions of the spindle 7 are formed with a number of suitably spaced annular grooves, as 9, and the spurs 8 are upset from the material forming the walls of the grooves. This method of forming the spurs is convenient and inexpensive.

The bushings 5 loosely surround the end portions of the spindle 7 and the spurs 8 bite into or otherwise take a grip on the material of the bushings, thereby holding the latter against displacement with respect to the spindle, in order that the roll may always be accurately centered, that it may be rotated easily, and that its edges may not be mutilated or irregularly cut.

The means for holding the bushings against axial displacement is characterized by simplicity and inexpensiveness.

The structure may be as readily set up and dismantled as those now known to the art and which lack the advantages herein set forth.

Having fully described my invention, I claim:

In a paper roll holder, the combination with end bushings and a core rod, of a hollow spindle rotatably surrounding the core rod without axial movement thereon and having its end portions fitted in the bushings and provided with means to hold the latter against axial play.

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

WILLIAM H. HOELL.

Witnesses:

F. A. HOELL,  
F. C. HOELL.