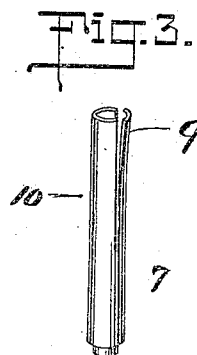
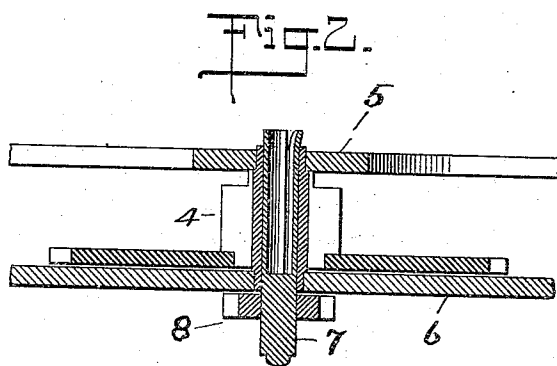
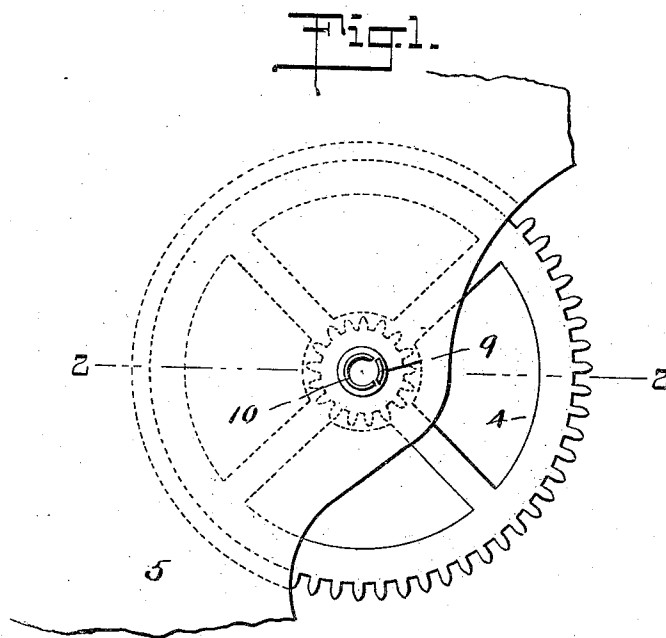


951,139.

W. B. MEHL.
CANNON PINION SHAFT.
APPLICATION FILED AUG. 6, 1909.

Patented Mar. 8, 1910.



WITNESSES:
Parker Cook
W. Stuart Roe.

INVENTOR
Walter B. Mehl
BY *Henry Brown*
ATTORNEY

UNITED STATES PATENT OFFICE.

WALTER BIRD MEHL, OF WALTHAM, MASSACHUSETTS, ASSIGNOR TO PHILADELPHIA
WATCH CASE COMPANY, OF RIVERSIDE, NEW JERSEY, A CORPORATION OF NEW
JERSEY.

CANNON-PINION SHAFT.

951,139.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed August 6, 1909. Serial No. 511,485.

To all whom it may concern:

Be it known that I, WALTER BIRD MEHL, a citizen of the United States, and a resident of Waltham, in the county of Middlesex and State of Massachusetts, have made and invented certain new and useful Improvements in Cannon-Pinion Shafts, of which the following is a specification.

This invention relates to an improvement in watch movements, and more particularly to a novel construction of a cannon pinion shaft. Heretofore in forming this shaft it has been the practice to construct the same of solid metal throughout its entire length, and to slit the same down through the center, part way of its length, thereby forming two spring fingers of equal proportions or dimensions. It has been found, however, that such form of shaft has been unsatisfactory, in that in many instances, the alinement of the shaft through the center pinion has been destroyed, one of the spring arms having more resiliency than the other.

The purpose of my invention is to overcome this objection and to provide a shaft, the alinement of which will always be preserved, and with this and other ends in view consists in certain novel features of construction and combination of parts as will be hereinafter fully described.

In the accompanying drawings Figure 1 is a plan view of a part of a watch movement, showing my improved cannon pinion as applied thereto. Fig. 2 is a sectional view thereof taken on the line 2—2 of Fig. 1. Fig. 3 is a detached view in perspective of a cannon pinion shaft constructed in accordance with my invention.

Referring to the drawings, 4 represents the center pinion, the ends of which have their bearings in the top plate 5, and dial plate 6. Through the center pinion 4 passes the cannon pinion shaft 7, on which is fric-

tioned the cannon pinion 8, this shaft 7 being hollowed out for a portion of this length, and slotted as illustrated in Fig. 3, whereby to form a spring tongue or arm 9 and a rigid arm 10, the length of the spring arm 9 being substantially equal to that of the hollowed out portion, and in circumference about one third that of the shaft. This form of shaft I have found in practice to be a great improvement over the old type, in that while the spring member 9 is of sufficient dimension to frictionally retain the shaft within the pinion 4, and otherwise perform its functions, the shaft as a whole will always retain its proper alinement by reason of the bearing surface contained within the two thirds of its unslitted circumference. It will also be understood that the tension of the spring member 9 will be increased or decreased by bending the same toward or away from the remaining rigid portion 10, and this without in anywise endangering the alinement of the shaft.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

In a watch movement, the combination with a top plate and a dial plate, of a center pinion mounted between said plates, and a cannon pinion shaft passing through said center pinion, said shaft being hollowed out for a portion of its length and slotted to form a spring tongue of approximately one third of the circumference of said shaft, substantially as described.

Signed at Waltham, in the county of Middlesex and State of Massachusetts, this 2nd day of August A. D. 1909.

WALTER BIRD MEHL.

Witnesses:

W. C. COOK,
R. SCHMIEDTZEN.