

(No Model.)

A. N. GAUTHIER.
CANNON PINION FOR WATCHES.

No. 540,586.

Patented June 4, 1895.

Fig. 1.

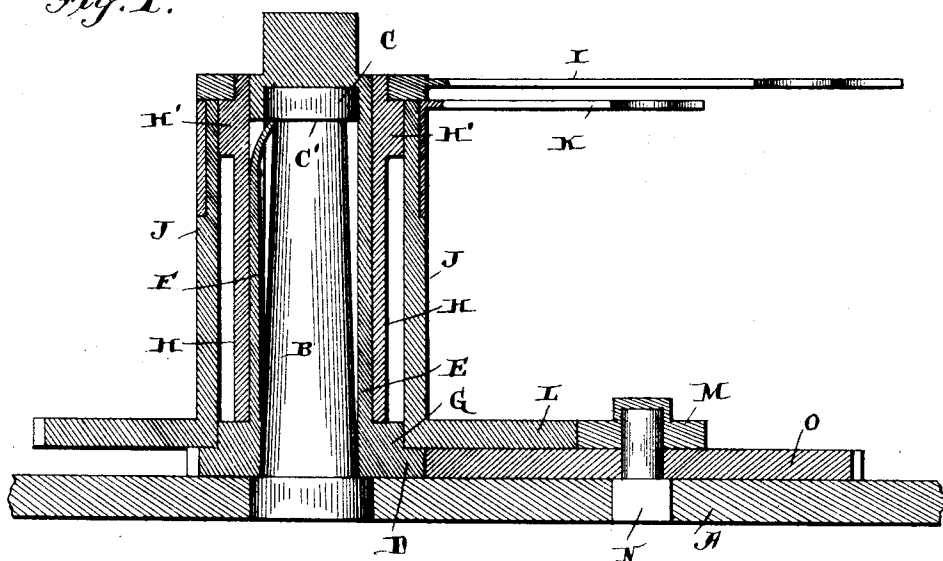
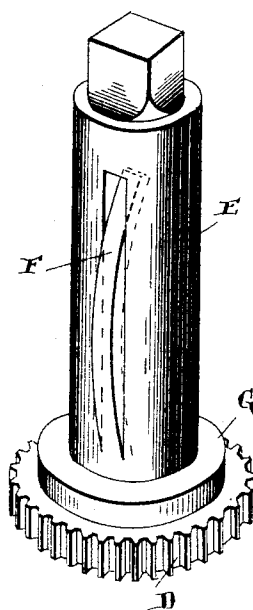


Fig. 2.



WITNESSES—

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CANNON-PINION FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 540,586, dated June 4, 1895.

Application filed August 30, 1893. Renewed April 11, 1895. Serial No. 545,402. (No model.)

To all whom it may concern:

Be it known that I, AGILE N. GAUTHIER, of New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new
5 and useful Improvements in Cannon-Pinions; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use
10 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in cannon pinions; and it consists in the novel
15 manner of securing the minute and hour hand carriers to the center staff, as will be fully described hereinafter, and especially referred to in the claims.

The object of my invention is to provide a
20 cannon pinion mechanism which is easily adjustable on and removable from the center staff, but which when in position is held positively from longitudinal movement. As
25 nearly all staffs are slightly conical and the cannon pinions also so formed to fit thereon the latter have a tendency to work off the former and out of position, especially so when the watch is subjected to sudden jars or when
30 the hands are being rapidly turned in setting the watch.

My invention is designed to obviate these difficulties by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view of my
35 improved mechanism. Fig. 2 is a detached perspective view of the cannon-pinion.

A designates the pillar plate of a watch movement and B the center staff projected
40 upward therethrough which is slightly tapering toward its outer end where it is provided with the head C which forms the shoulder C'.

D is the cannon pinion fitting tightly the staff B and extending therefrom to the outer
45 end of the staff is the encircling sleeve E. A spring arm F, is formed by slitting the said sleeve from near its upper end to its base and then cutting transversely the slitted portion at its outer end thus freeing the same. The

body portion of this spring arm is bulged out- 50
ward while its free end is sprung slightly inward.

Made integral with pinion D is the annular flange G and adapted to fit down over and around the sleeve E, and rest on the said 55
flange is the sleeve H to the upper end of which the minute hand I is secured. Now in pushing this sleeve H down into position the spring arm F, is forced inward with its free end beneath head C and engaged by 60
shoulder C' thereof. While the spring arm F impinges the sleeve H so as to hold it securely from longitudinal movement the sleeve E and the said arm are prevented from longitudinal movement owing to the engagement 65
of the latter with head C and by this arrangement the parts are most securely held in position.

The sleeve H is formed with an annular projection H' near its upper end which in di- 70
ameter is the same as shoulder or flange G and adapted to encircle the said flange and annular projection is the sleeve J carrying at its upper end the hour hand K and at its lower end the gear L. The latter meshes with 75
pinion M mounted on stud N and turning with this pinion is gear O which meshes with the cannon pinion D. As sleeve J has a slower movement than the cannon pinion and sleeve E the friction which would otherwise 80
exist between the same is removed to a great extent by the flange G and annular projection H' which present only a sufficient amount of bearing surface to hold the sleeve J in its proper position. 85

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

1. The combination of a center staff, the cannon pinion having the enlargement G, 90
sleeve H adapted to rotate with the staff and having enlargement H', sleeve J incasing the said enlargement, a minute hand carried by the sleeve H, an hour hand carried by the sleeve J, and an operating means, substan- 95
tially as shown and described.

2. The combination of the central staff having shoulder C', a cannon pinion, sleeve E

carried by the pinion and constructed with
a closed cut to form arm F which is integral
at its lower end with the sleeve and at its up-
per end engages shoulder C', and an hour
5 hand sleeve encircling sleeve E and held in
place by the outward bulge in arm F, substan-
tially as shown and described.

In testimony whereof I affix my signature
in presence of two witnesses.

A. N. GAUTHIER.

Witnesses:

E. BOISSON,
LEON LUCHOT.