P. E. JEANMAIRET.

ESCAPEMENT WHEEL.

APPLICATION FILED AUG. 9, 1905.

898,479. Patented Sept. 15, 1908.

Fig. 1.

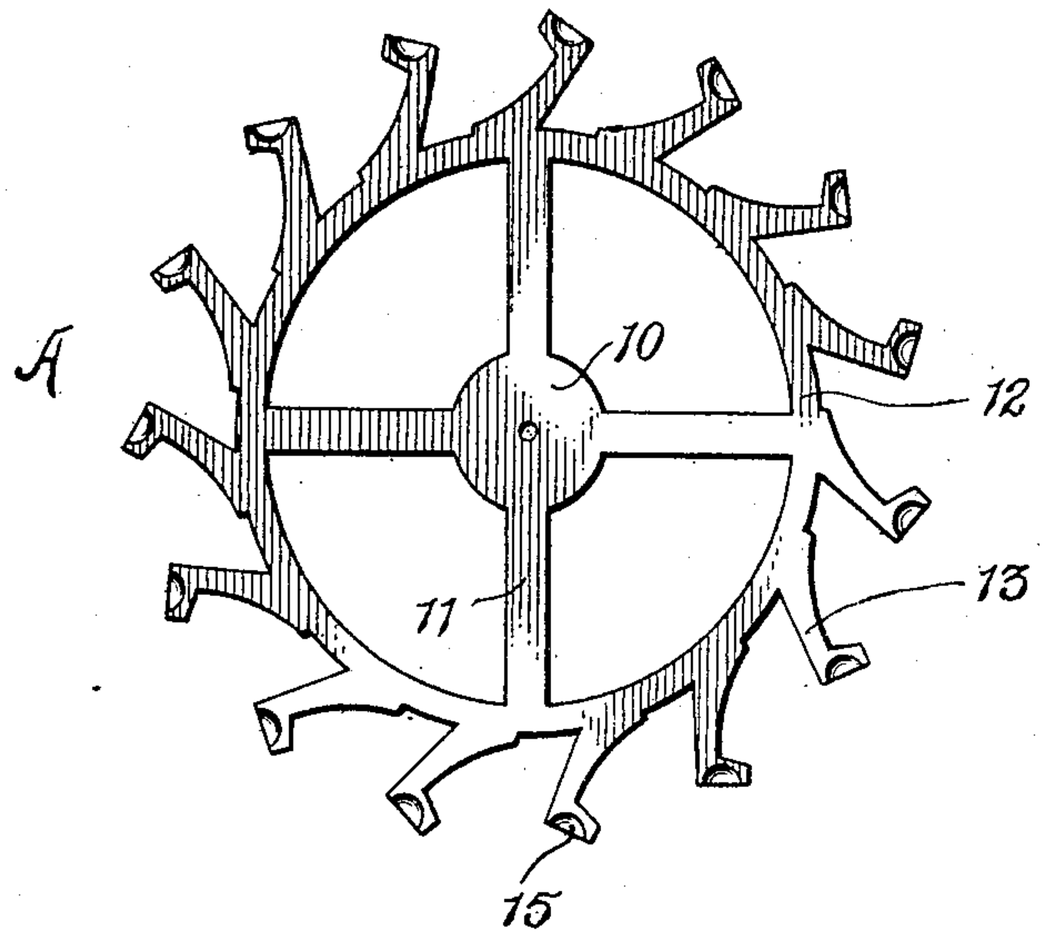
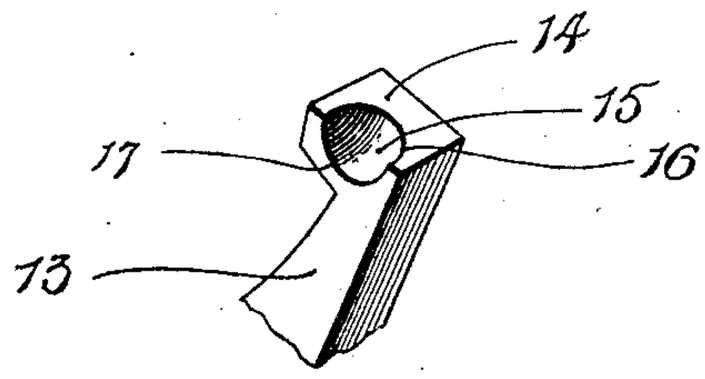


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

PAUL EMMANUEL JEANMAIRET, OF MOUNT CARROLL, ILLINOIS.

ESCAPEMENT-WHEEL.

No. 898,479. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed August 9, 1905. Serial No. 273,486.

To all whom it may concern:

Be it known that I, PAUL EMMANUEL JEANMAIRET, of Mount Carroll, in the county of Carroll and State of Illinois, have invented certain new and useful Improvements in Escapement-Wheels, of which the following is a specification.

My invention relates to the art of horology, and especially to escapements for watch and clock movements, and contemplates an escapement-wheel of novel construction whereby lubricant may be supplied in a constant and uniform manner to certain parts where needed.

To this end my invention consists of the novel form of escapement-wheel specifically described and claimed herein and illustrated in the accompanying drawings in which

Figure 1 is a face view of a practical embodiment of my invention and Fig. 2 is a detail perspective view of one tooth thereof.

My improved wheel A has the body portion or hub 10, spokes 11, and rim 12 of any suitable or approved design or construction, the features embodying my invention not being dependent upon any particular form of the aforesaid parts. On the rim 12 I form a number of teeth for coöperation with the pallet in the usual manner. Each of the teeth 13 is provided with a broadened or flaring outer end instead of being pointed, and thus forming at the extreme outer end a substantially flat surface 14 the plane of which is parallel to the axis of the wheel and substantially perpendicular to the tooth and over which plane the edge of the pallet passes in the operation of the escapement. I have found by practical experience that the greatest friction in a time-piece is at the escapement, and in order to lessen such undesirable condition to the greatest possible extent, I provide at the end of the tooth a lubricating means, such means being shown as a cavity or pocket 15 formed in a side of the tooth at the lateral edge of and in communication with the aforesaid plane surface, and extending only partially across the surface 14, the said surface thereby being left continuous or unbroken in one direction.

The pocket 15 is comparatively broad and shallow and has a rounded and smooth unbroken bottom, the shape being such as to retain a maximum quantity of lubricant relative to the size of the tooth. Being thus formed, each pocket is bounded by two curved lines 16 and 17, the former of which lies wholly within the aforesaid plane surface 14, and the latter in a face of the tooth. It will also be noted that the pocket has its greatest depth adjacent the plane surface 14 where the lubricant is required, and its least depth remote therefrom along the boundary line 17, whereby there is no tendency for the lubricant to be conveyed by capillarity or otherwise to any undesirable part of the wheel.

From the foregoing detail description of the structure of my wheel, the following brief statement of its operation will be appreciated: Lubricant of a suitable consistency is supplied to the pockets and as the teeth pass successively beneath the pallet the edges of the latter glide across the surfaces 14 thereof. The contacting portions of the pallet and teeth, therefore, will be effectively lubricated by reason of the contact of the pallet with said end surfaces and without the spread of oil to such surfaces or parts of the delicate mechanism as are desired to be kept free from oil and dust.

I claim:

As a new article of manufacture, an escapement-wheel embodying radial teeth, each of said teeth being formed with a transversely enlarged outer end portion, each tooth being further formed in a side thereof and at its outer extremity with a U-shaped pocket arranged radially relative to the axis of the wheel, the tapering inner terminal of said pocket being located adjacent to that of the transverse enlargement of the tooth, the depth of the pocket aforesaid gradually increasing towards its outer terminal which merges into the outer edge of the tooth, whereby a maximum quantity of lubricant is retained in the pocket to supply the terminal of the tooth that coöperates with the pallet.

PAUL EMMANUEL JEANMAIRET.

Witnesses:

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