No. 659,985. Patented Oct. 16, 1900.

S. B. PARKER.

PENDULUM BEAT ADJUSTER.

(Application filed Aug. 2, 1900.)

(No Model.)

Fig. 1.

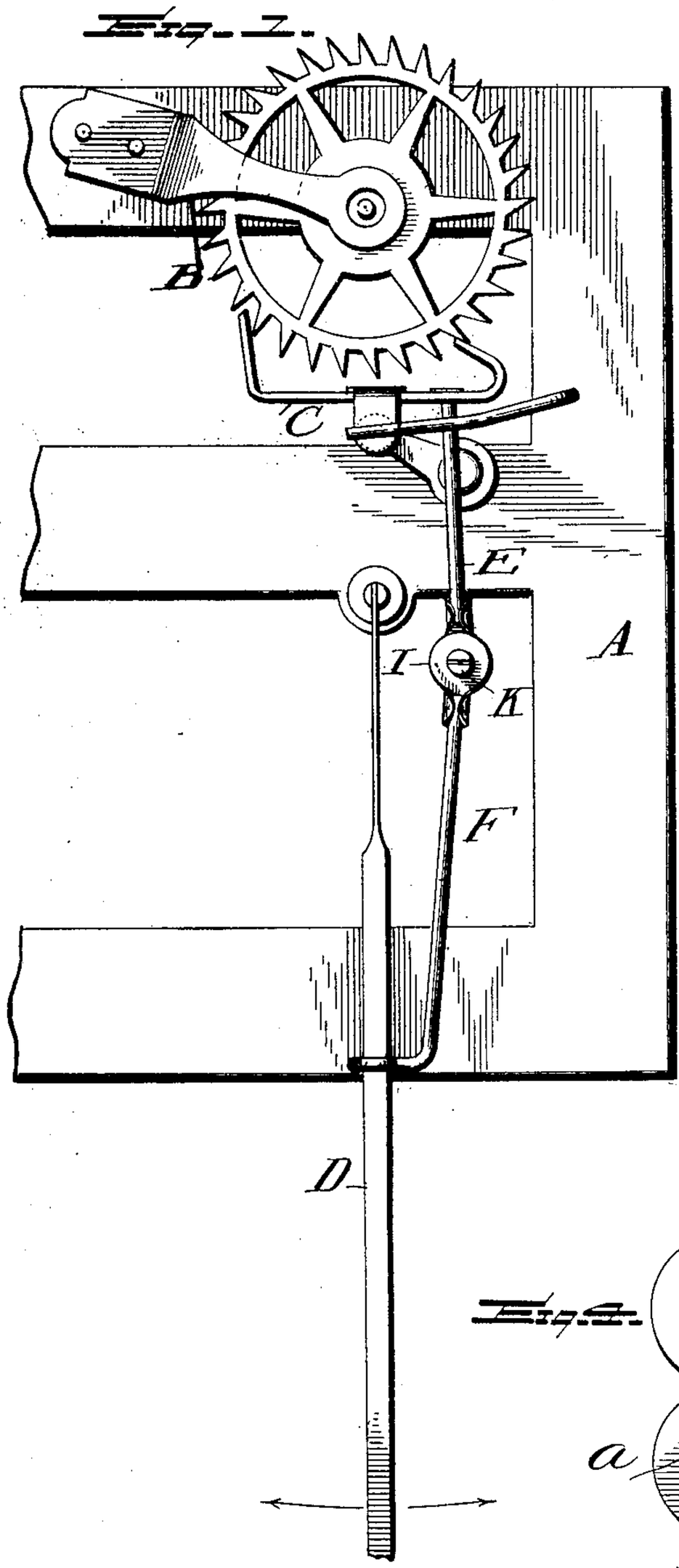


Fig. 2.

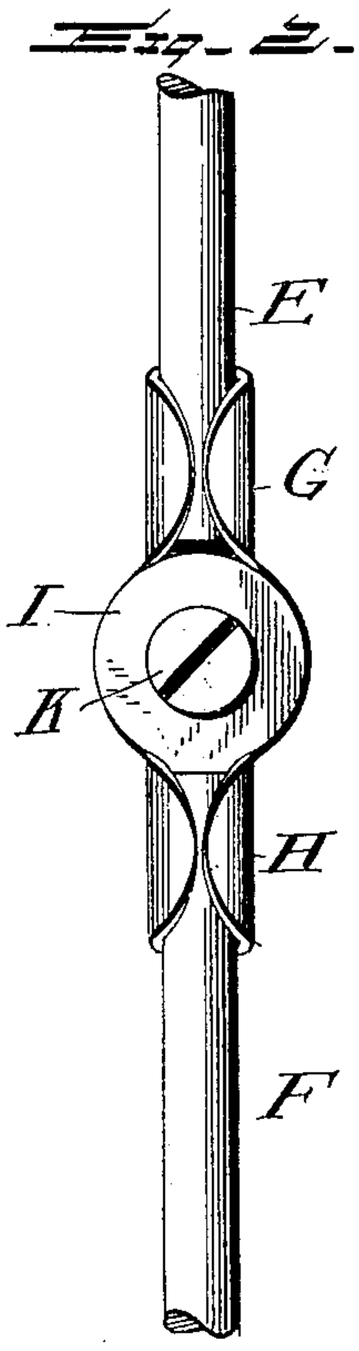


Fig. 3.

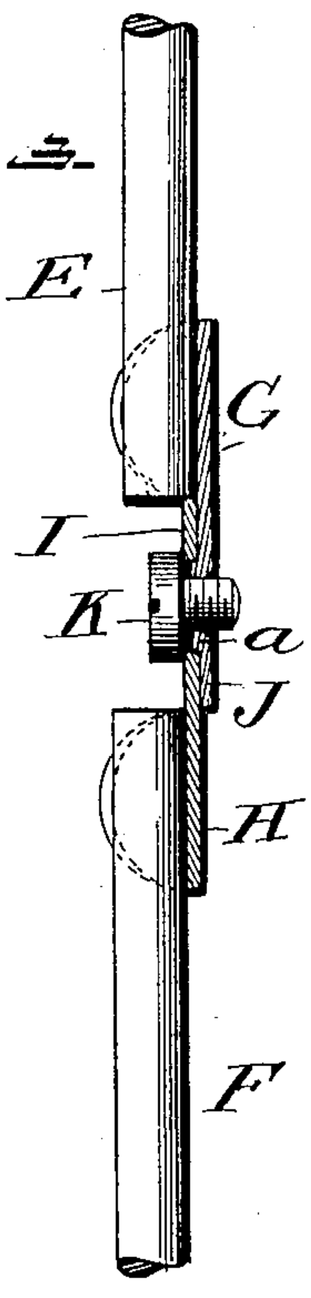
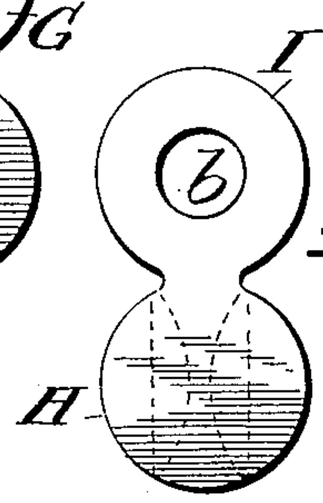


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

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PENDULUM-BEAT ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 659,985, dated October 16, 1900.

Application filed August 2, 1900. Serial No. 25,691. (No model.)

To all whom it may concern:

Be it known that I, SIMON B. PARKER, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Pendulum-Regulators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a simple and effective means for the adjustment or correction of the beat of a clock-pendulum and capable of being applied to any pallet or verge escapement without in any manner disturbing the rest of the movement; and the invention consists in the means substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a side elevation of a portion of the frame of a clock-movement, showing the relative positions of the escape-wheel, the pallet or verge, the pallet-rod, and the pendulum-rod; Fig. 2 a detail view, on an enlarged scale, showing the means employed in pivotally connecting the ends of the pallet-rod; Fig. 3, a similar view, partly in section; Fig. 4, a plan view of the outer pivot-plate; Fig. 5, a similar view of the inner pivot-plate.

In the accompanying drawings, A represents a portion of the frame of a clock escapement or movement, to which is connected in the usual manner the escape-wheel B, engaging the verge or pallet C, which has a vibratory movement imparted to it through the vibratory motion of the pendulum-rod D, which connects with the pallet-rod in the usual manner.

I have shown and described one of many forms of clock-movements to which my invention may be applied, and therefore I do not wish to be understood as limiting the invention to any special form of movement, as said invention resides in the construction of the pallet-rod and means for rendering it adjustable to correct the beat of the clock-pendulum.

The pallet-rod is of the usual construction except that it is formed in two sections E F, the upper section being suitably connected to the verge or pallet C and the lower section to the pendulum-rod D in the usual manner. The inner ends of the pallet-rod sections E F are joined by two pivot-plates G H, which are secured thereto by bending the plates over and upon the ends of the rod-sections and soldering or otherwise securely fastening the plates thereto, as found most desirable. The two plates G H are pivotally connected together in the following manner, whereby a movable joint will be formed, so that the lower rod-section F can be moved at any desired angle to the upper rod-section E to regulate the beat of the pendulum. The fastening-plates G H are constructed of sheet metal and are formed with pivot-disks I J, respectively, the disk I having an interiorly-screw-threaded collar *a* to receive a clamping-screw K, said collar engaging a hole or opening *b* in the disk J. When the fastening-plates G H have been secured to the ends of the two pallet-rod sections E F, the screw-collar *a* is engaged with the hole or opening *b* in the disk J, and then the screw engaged with the collar and screwed tight, which will draw the two disks together and hold them by frictional contact with each other. When it is desired to adjust the position of the rod-section F with relation to the rod-section E, the screw K is loosened and the disk I, with its rod-section, moved to the right or left as required, and afterward the disks brought in frictional contact with each other by again tightening up the screw.

In place of the fastening-plates G H any suitable means may be employed for securing the ends of the rod-sections E F to the disks I J, as found best adapted to the purpose.

It should be understood that the two disks I J are not permanently connected together, but on the contrary are separable, and the clamping-screw K is also detachable. The disks being separable and the clamping-screw detachable therefrom, it enables each disk to be connected to the end of the rod-section independent of the other, and when both the disks are thus secured the screw-collar of one disk is engaged with the opening in the other disk and the clamping-screw engaged with the collar. Should it be required to separate the

two rod-sections for any purpose, it is readily accomplished by removing the clamping-screw and separating the disks. The separable disks are considered of material importance for many reasons in repairing the works of the clock, especially when it is desired to separate the two sections of the pallet-rod.

An important and decided advantage is obtained in the employment of the adjustable disks I J in that the device can be applied to the pallet-rods of old clocks without altering any part of the escapement by simply dividing the rod and securing the two ends to their respective fastening-plates or any other means that may be employed for forming a juncture between the pivoted disks and the ends of the rod-sections.

By means of the adjustable or pivotal connections between the ends of the rod-sections the automatic working of the device by the vibratory action of the pendulum-rod is obtained, as proper friction may be given to the disks by the adjustment of the screw, so that by simply starting the pendulum sufficient for the pallet to bank on the escape-wheel, which will force the disks right and left until the pendulum swings within its normal arc distance, when the adjustment will keep in place. The escapement will beat evenly and remain so until again disturbed, when by giving the pendulum full motion again it will return automatically to its former regular beat, this advantage in the automatic working of the device being attained by the two disks and the tightening and adjusting screw for connecting them together.

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

1. A device for adjustably connecting the two inner ends of the sections of a pallet-rod for clock-movements, consisting of two separable metal disks provided with means for securing them to the ends of the rod, one of said disks formed with a central opening and its fellow disk having an interiorly-screw-threaded collar adapted to enter and engage said opening, and a removable clamping-screw engaging the collar, whereby the two disks may be separated, substantially as and for the purpose set forth.

2. A sectional pallet-rod for clock-movements, and means for connecting the inner ends of the rod, consisting of two separable metal disks, one of which has a central opening and its fellow disk provided with an interiorly-screw-threaded collar adapted to engage the opening, and a removable clamping-screw engaging the collar, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SIMON B. PARKER.

Witnesses:
JEROME W. HYDE,
FRANK BOLLES.