No. 750,277. PATENTED JAN. 26, 1904.

E. S. HAMILTON.

SECTIONAL HUB FOR PULLEYS.

APPLICATION FILED MAR. 16, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

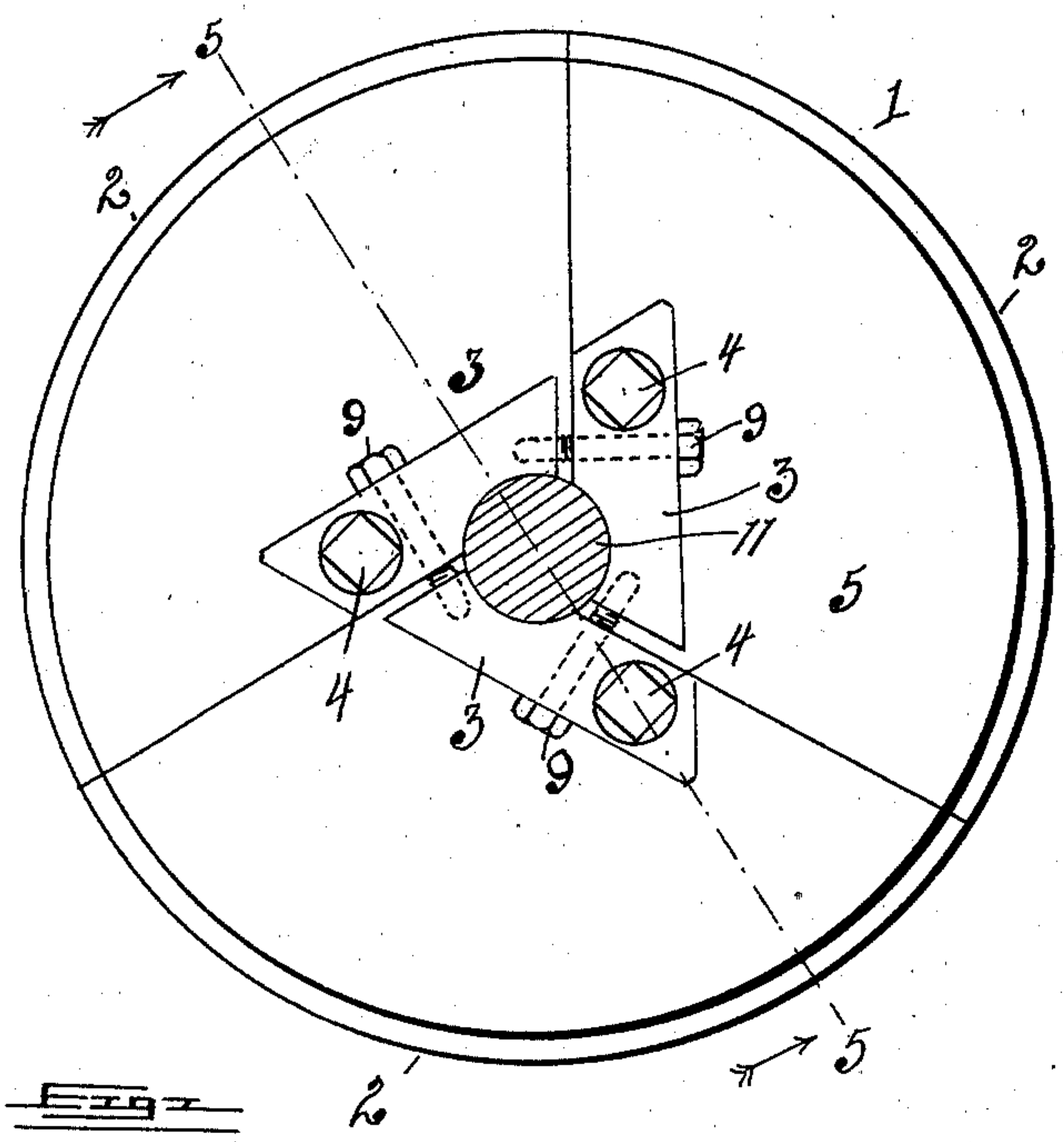


Fig 1.

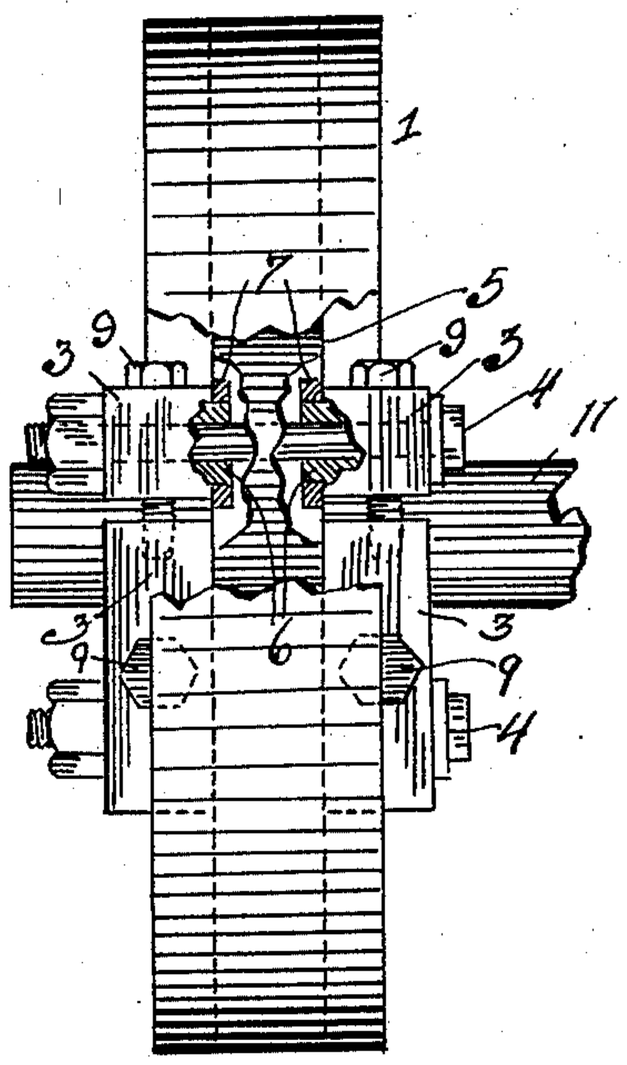
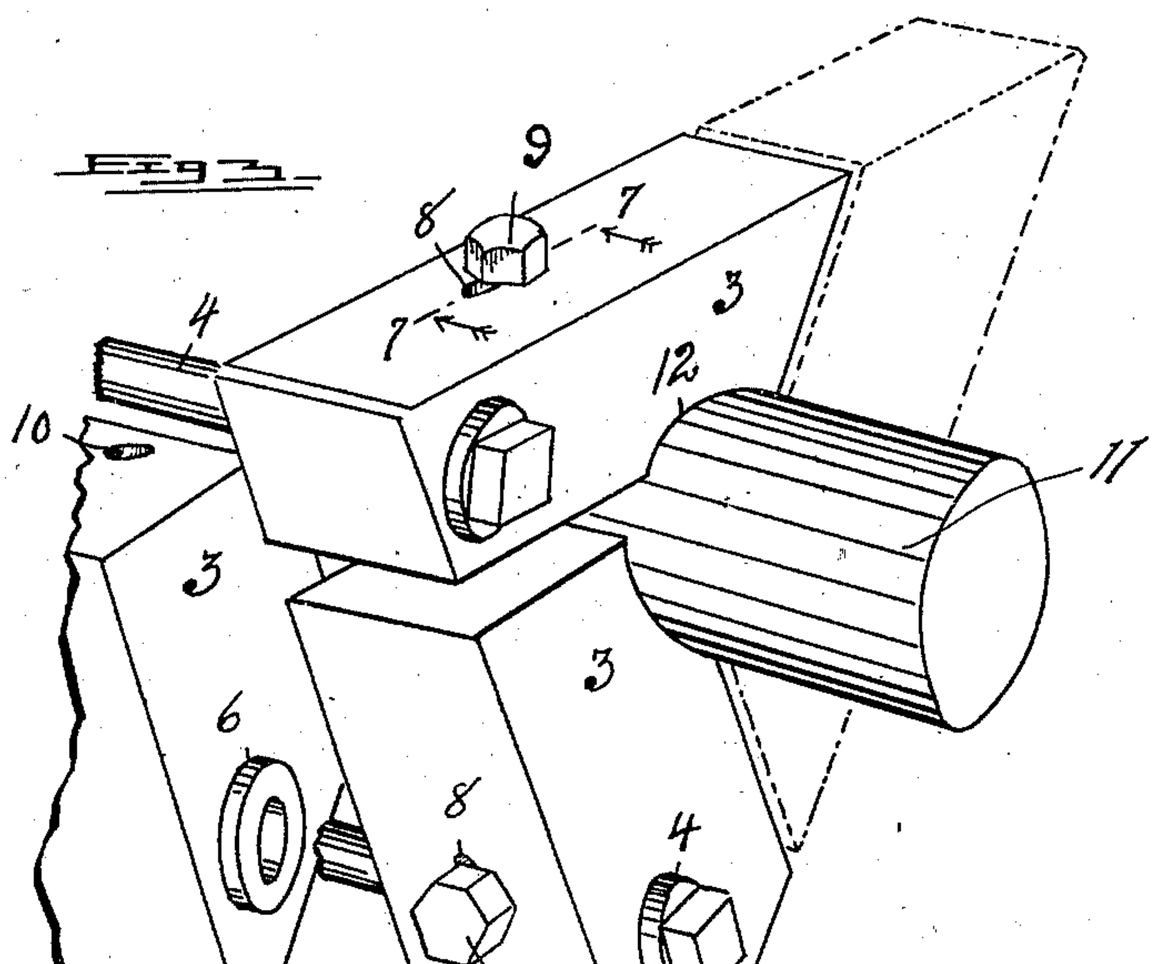


Fig 2.

Fig 3.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig 6.

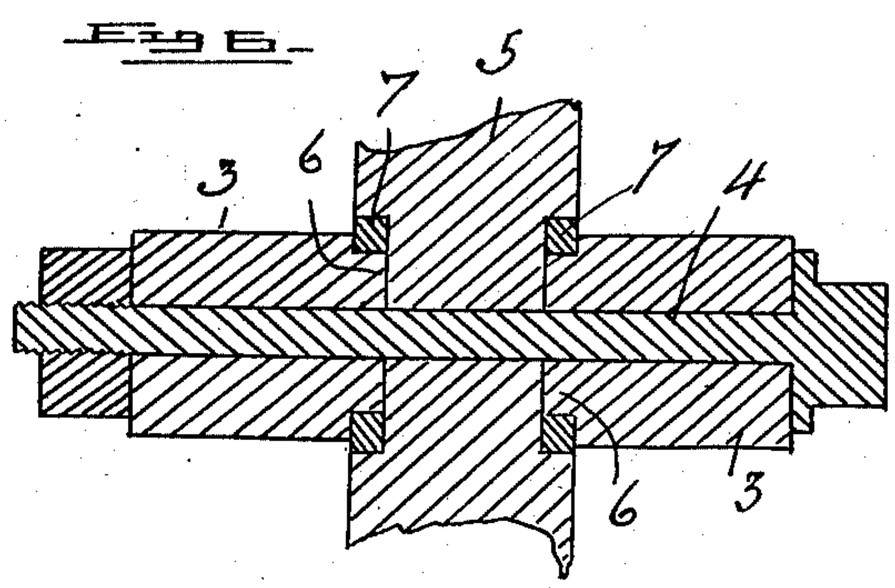
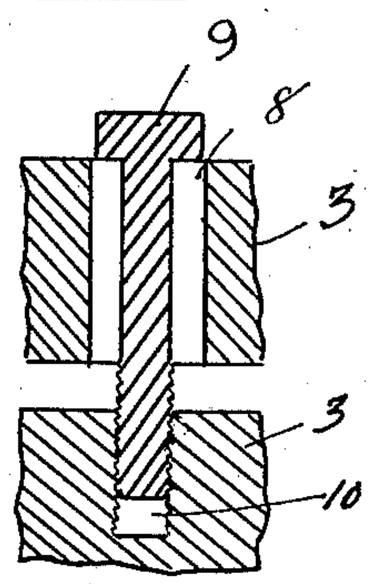


Fig 7.



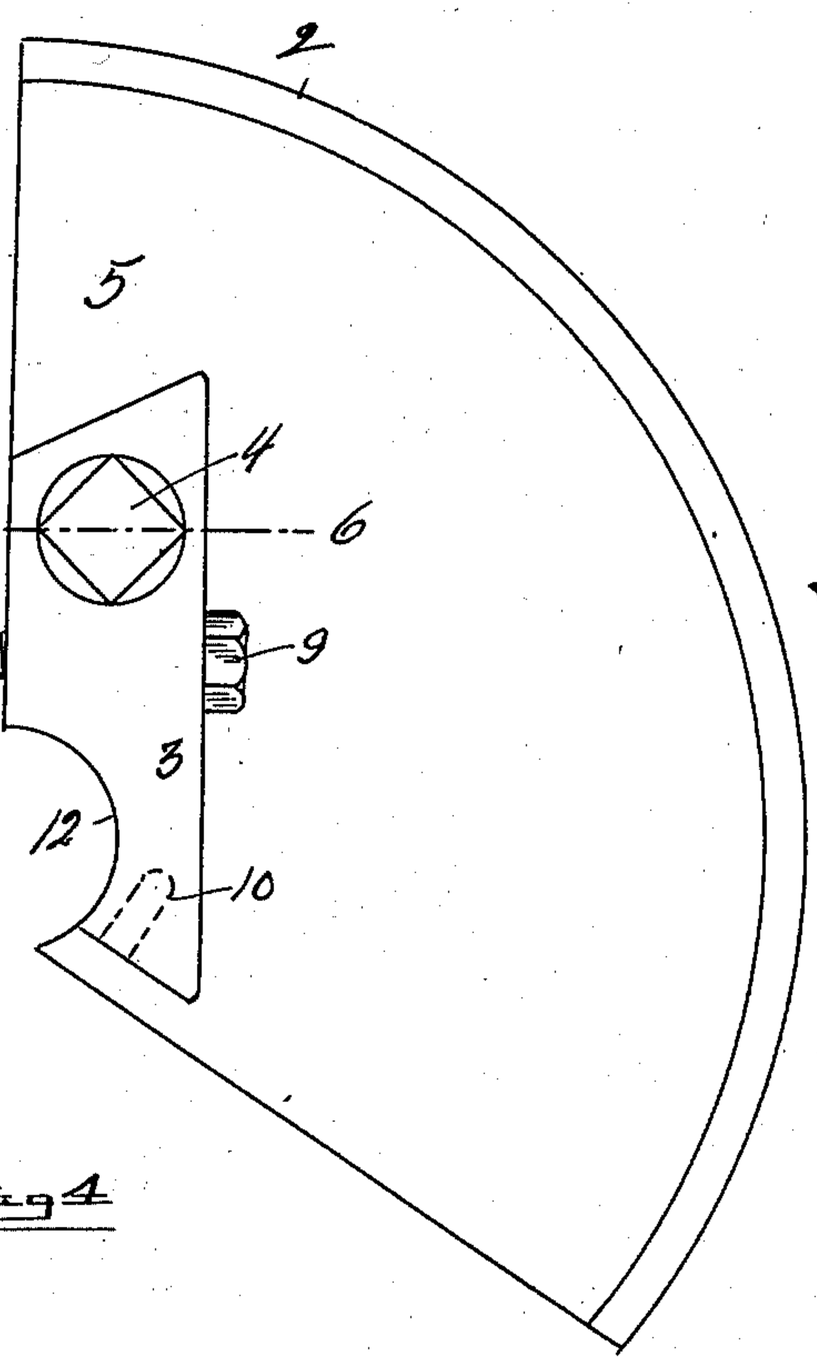


Fig 4

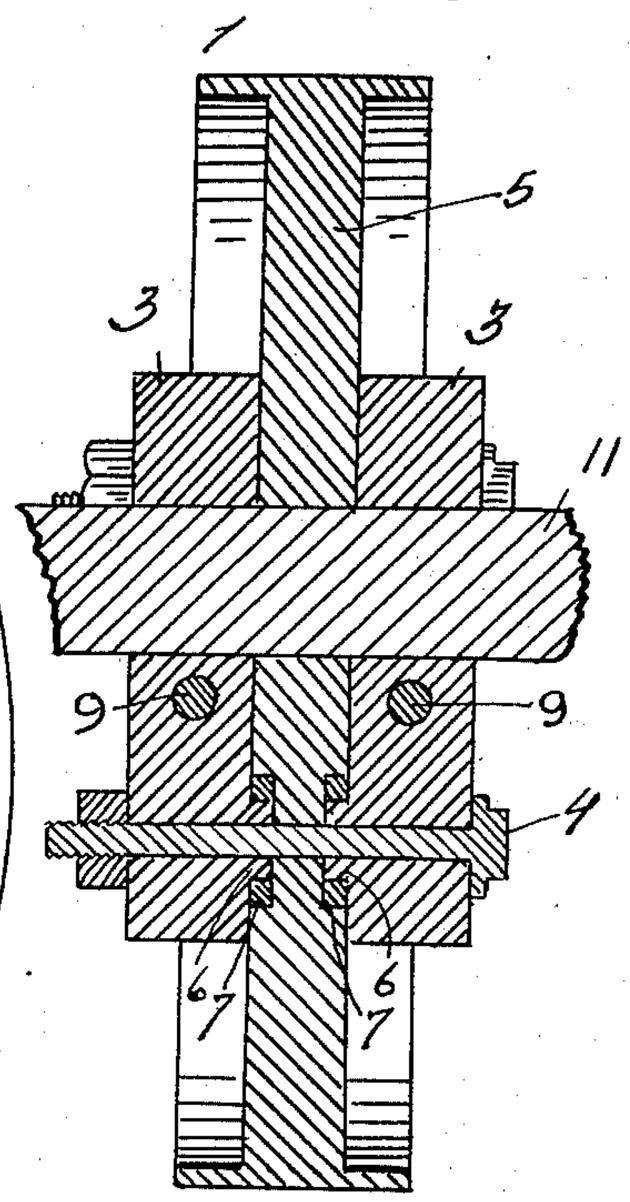


Fig 5.

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No. 750,277. Patented January 26, 1904.

UNITED STATES PATENT OFFICE.

EVLYN S. HAMILTON, OF ADRIAN, MICHIGAN.

SECTIONAL HUB FOR PULLEYS.

SPECIFICATION forming part of Letters Patent No. 750,277, dated January 26, 1904.

Application filed March 16, 1903. Serial No. 147,876. (No model.)

To all whom it may concern:

Be it known that I, EVLYN S. HAMILTON, a citizen of the United States, residing at Adrian, in the county of Lenawee, State of Michigan, have invented certain new and useful Improvements in Sectional Hubs for Pulleys; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to a sectional hub for pulleys more expressly designed for use in connection with split pulleys; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means for securing the pulley upon a shaft, so as to enable the hub to be readily secured to any size shaft and insure a perfect centering of the pulley, the arrangement being such as to enable the use of a solid web-pulley, thereby avoiding the objection of fanning where spoke-pulleys are used and run at a high speed.

The above object is attained by the structure illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a pulley embodying my invention mounted on a shaft which appears in section. Fig. 2 is a face view of Fig. 1, with parts broken away to more clearly show construction and arrangement. Fig. 3 is a perspective view in detail of the sectional pieces of the hub removed from the pulley, parts being omitted and other parts being broken away. Fig. 4 is a side elevation of a segment of a pulley, showing a hub-section mounted thereon. Fig. 5 is a diametrical section as on line 5 5 of Fig. 1. Fig. 6 is a fragmentary view in section as on line 6 6 of Fig. 4. Fig. 7 is a fragmentary view in section as on line 7 7 of Fig. 3.

This invention is illustrated herein in connection with a split wood pulley having a solid web; but it will be understood that it is applicable to iron pulleys and to other than split pulleys.

Referring to the characters of reference, 1 designates a pulley which is shown as composed of three segments 2, each of which carries on each side thereof a hub-section 3. It will be observed that there are three of said hub-sections on each side of the wheel arranged to form a triangular-shaped hub and that the corresponding sections of the hub on opposite sides of the wheel are arranged in pairs, each pair being pivoted on a transverse bolt 4, passing through the hub-sections and through the web 5 of the wheel. To relieve the strain upon the pivot-bolt 4 and to afford a firm bearing for the hub-sections in the web of the wheel, said sections are each provided on the inner face thereof with an annular boss 6, adapted to fit within a bushing 7, seated in a recess in the web 5, whereby the tilting of the hub-sections upon their point of pivot is obviated and a secure and firm connection is made between said sections and the wheel, which relieves the bolt 4 from undue strain.

Formed through each of the hub-sections 3 is a slot 8, extending longitudinally of said sections, through which passes a clamping-screw 9, whose threaded end portion is adapted to screw into a tapped aperture 10 in the end of the opposed hub-section, as clearly shown in Figs. 2 and 7.

It will be understood that the opening through the web of the wheel will be of such size as to readily receive the largest diameter of shaft. Where this sectional hub is applied to a split pulley, it is only necessary to disengage the clamping or uniting screws 9 to allow one of the segments 2 of the pulley to be removed, so as to enable said pulley to be placed upon the shaft. After the pulley has been placed upon the shaft and the removed segment replaced it is secured to the shaft by tightening the binding-screws 9, which pass through the slots 8 in each of the hub-sections and into the end of the adjacent hub-sections. Said screws being located between the pivot or fulcrum of the sections of the hub and their point of bearing upon the shaft 11, the tightening of said screws will force the concave

face 12 of said hub-sections onto the shaft, and thereby firmly lock the hub and wheel thereto.

It will be observed that the hub-sections afford a bearing at three points upon the shaft, thereby enabling the wheel to be perfectly centered by turning the three clamping-screws 9 the same number of turns, so as to swing each of the hub-sections the same relative distance upon their pivots. The slots 8 in the hub-sections, through which the binding-screws 9 pass, allow of a change in the position of said sections without cramping said screws. It will therefore be seen that through the medium of these pivoted hub-sections adapted to clamp the shaft the pulley may be readily centered upon a shaft of smaller diameter than the opening through the web of the pulley and at the same time firmly locked to the shaft.

The bearing-faces of the hub-sections upon the shaft may be as wide as desired, so as to afford sufficient contact to insure a rigid and positive mounting of the pulley, so as to avoid any possibility of slipping.

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

1. A pulley having a sectional hub, the members of which are mounted upon the outer faces of the web of the pulley and are independently movable in a plane eccentric to the axis of the pulley and means for moving said hub members in said plane to engage and clamp the shaft.

2. A pulley having a sectional hub comprising a plurality of members mounted upon opposite sides of the web of the pulley and adapted to have movement at one end in a plane eccentric to the axis of the pulley, each of said members adapted to have a bearing upon the shaft and each having means for forcing it into contact with the shaft to lock the pulley thereto.

3. The combination with a pulley, of a sectional hub mounted thereon, said hub comprising a plurality of independent members arranged in pairs, the opposed members of each pair being located on opposite sides of the web of the pulley and adapted to have independent contact with the shaft, each of said members having a point of fulcrum, and a binding-screw passing through each of said members into another of said members.

4. The combination with a pulley, of a sectional hub comprising a plurality of movable members pivoted in pairs to opposite sides of the pulley and adapted at their free ends to engage the shaft, and binding-screws passing freely through each of said members and adapted to screw into another of said members to bind said members of the hub to the shaft.

5. The combination with a pulley, of a sectional hub mounted thereon comprising a plurality of members, transverse bolts passing through said members and the pulley, whereby said members are journaled in pairs upon said bolts, and means for moving the free ends of each of the members of the hub forcibly into contact with the shaft.

6. A pulley, having a hub divided into two opposed parts, located upon opposite sides of the web of the pulley, each part of said hub being divided into three members, and each member having a fixed point of fulcrum and a movable portion adapted to have a bearing upon the axle, and a screw passing freely through each of said members, and screwing into another of said members whereby each may be independently clamped upon the axle.

In testimony whereof I sign this specification in the presence of two witnesses.

EVLYN S. HAMILTON.

Witnesses:
GEORGE H. GREENE,
COLA BRUIN.