

No. 662,446.

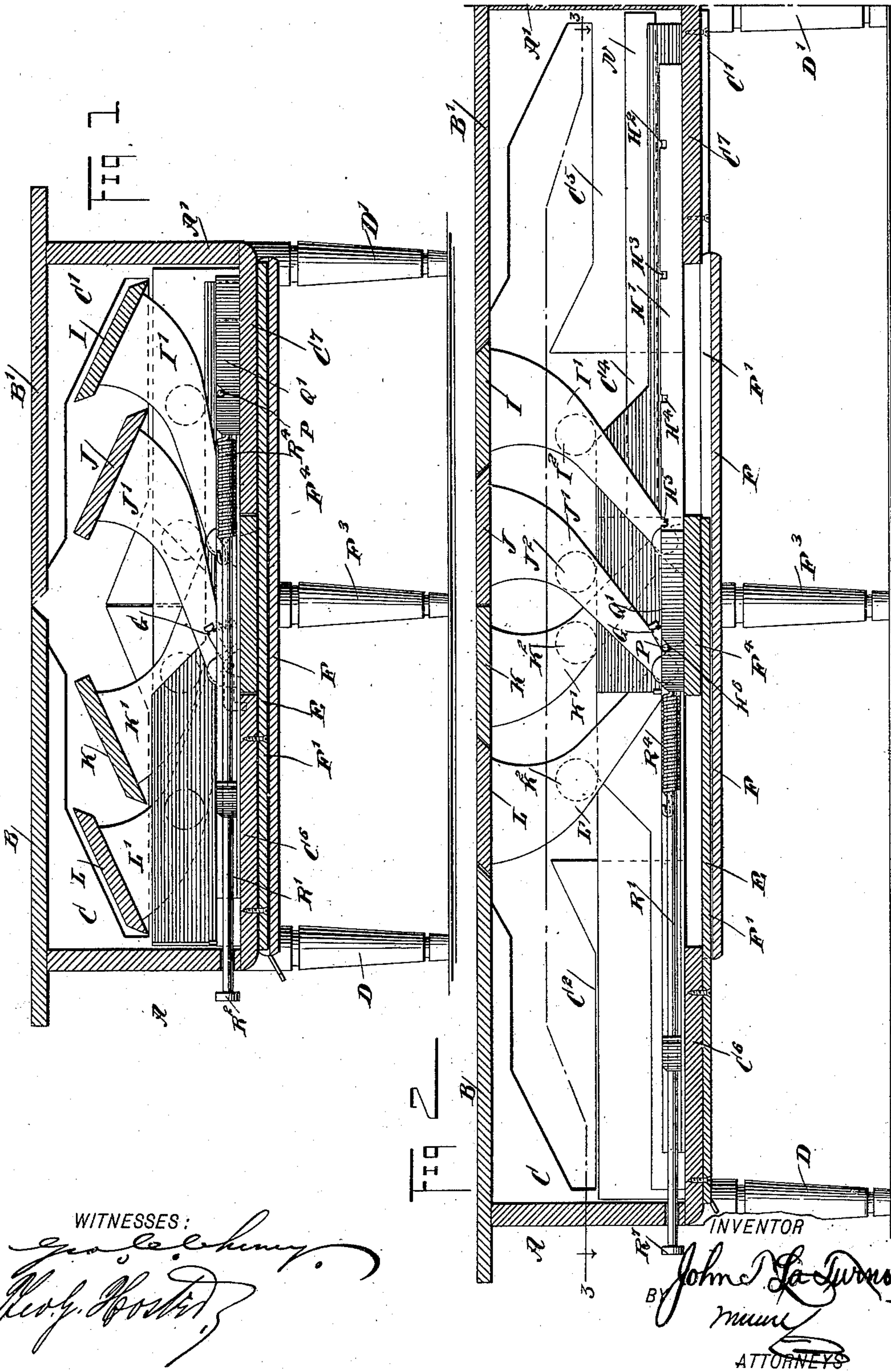
Patented Nov. 27, 1900.

J. T. LA TURNO.
EXTENSION TABLE.

(Application filed Feb. 27, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 662,446, dated November 27, 1900.

Application filed February 27, 1900. Serial No. 6,719. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMAS LA TURNO, a citizen of the United States, and a resident of Commerce, in the county of Scott and State of Missouri, have invented a new and Improved Extension-Table, of which the following is a full, clear, and exact description.

The invention relates to extension-tables such as shown and described in Letters Patent of the United States No. 625,173, granted to me on May 16, 1899.

The object of the present invention is to provide a new and improved extension-table arranged to permit of extending the table by one or more auxiliary leaves and securely locking the table in place when extended by one or more of said auxiliary leaves.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement in a closed position. Fig. 2 is a similar view of the same with the auxiliary leaves in place and the table extended to its full capacity, the section being on the line 2 2 in Fig. 3. Fig. 3 is a sectional plan view of the same on the line 3 3 in Fig. 2. Fig. 4 is a transverse section of the same on the line 4 4 in Fig. 3. Fig. 5 is a longitudinal sectional elevation of the sliding hinge for the auxiliary table-leaves. Fig. 6 is a transverse section of the same on the line 6 6 in Fig. 5, and Fig. 7 is a sectional side elevation of a modified form of the improvement.

The improved extension-table is provided with two main end sections A A', having table-tops B B', respectively secured on frames C C', carrying legs D D', respectively. The sections A A' are slidably connected with each other to permit of drawing the sections apart, as shown in Fig. 2, for extending the table or moving the sections together, as indicated in Fig. 1. For this purpose each side rail C² of the frame C of the section A is provided with a grooved extension C³, engaged in its groove by a bar C⁴, projecting longitudinally from

the side rail C⁵ of the frame C' for the other section A'. (See Figs. 3 and 4.)

On the under sides of the bottoms C⁶ C⁷ of the frames C C' are secured longitudinally-extending bars E E', respectively engaging grooves F' F², formed in the top of a bar F, carrying a leg F³ for supporting the table at its middle when it is closed or when extended. (See Figs. 1 and 2.)

On the top of the bar F is secured a transverse beam F⁴, on the top of which is pivoted a catch G, (see Figs. 3 and 4,) adapted to engage a keeper G', secured on the bottom C⁶ of the frame C, said catch being provided with an upwardly-extending arm G², pressed on by a spring for holding the catch normally in engagement with the keeper G' and locking the beam F⁴, and with it the leg F³, firmly to the frame C of the section A. When the sections A A' are drawn apart, the beam F⁴, owing to the catch G engaging the keeper G', moves with the section A until the sections are drawn apart about half the distance of the full extension, and at this time a transverse releasing-arm H, projecting from a rail H', attached to the bottom C⁷ of the frame C', engages the arm G² and swings the same so as to move the catch G out of engagement with the keeper G'. During the remaining half of the extension the beam F⁴, and with it the leg F³, moves with the frame C' and stands in the middle of the table when it is fully extended, as shown in Fig. 2.

Auxiliary leaves I, J, K, and L are normally arranged under the table-tops B' B, as illustrated in Fig. 1, the leaves I and J being under the top B' and the leaves K and L under the top B. The leaves I and J are rigidly mounted on longitudinally-extending arms I' and J', pivoted to the top surface of the beam F⁴, one in front of the other, as is plainly illustrated in the drawings. The arms I' and J' are provided at their outer sides with friction-rollers I² J², mounted to travel on longitudinally-extending tracks N, formed with inclines N', the tracks being secured to the top of the bottom C⁷ of the frame C'. The other leaves K and L are likewise provided with arms K' and L', extending longitudinally and pivoted on a slide O, having a limited longitudinal sliding movement on the top of the transverse beam F⁴. (See Figs. 5 and 6.) The

arms K' and L' are also provided on their outer sides with friction-rollers K²L², adapted to travel on tracks C⁸, forming part of the side extension C³, each track C⁸ having an incline C⁹ similar to the inclines N' on the tracks N.

It is evident that when the table-sections are drawn apart the beam F⁴ will move with the section A, as previously explained, so that the friction-rollers J² first come in contact with the inclines N' and travel up the same, thus imparting a swinging motion to the arms J' to swing the auxiliary table-leaf J into the space between the adjacent inner ends of the table-tops B and B'. On a further movement of the table-sections the friction-rollers I² will travel up the inclines N' and move the auxiliary leaf I into the space between adjacent edges of the table-top B' and the leaf J, already in place. At this time the releasing-arm H has released the catch G from the keeper G', so that upon a further outward pull of the sections A A' the friction-rollers K² will travel up the inclines C⁹ of the tracks C⁸ to move the section K into the space between adjacent inner edges of the table-top B and the auxiliary leaf J. On a further movement the friction-rollers L² travel up the inclines C⁹ to swing the last auxiliary leaf L into the space between adjacent inner edges of the top B and the leaf K, already in position. The adjacent inner edges of the leaves J and K are square, while their outer edges are beveled, and both edges of the leaves I and L are beveled to fit corresponding bevels on the leaves I and K and those of the corresponding sections of the table-tops B and B'.

The slide O, previously referred to and forming the fulcrum or pivot for the arms K' and L', is formed with longitudinal slots O', through which extend pins O², secured in the transverse beam F⁴ and held on a plate O³, covering the top of the slots O'. A spring O⁴ is secured at one end to the transverse beam F⁴ and at its other end to the pivot of the arm K' on the slide O, (see Figs. 5 and 6,) so that the spring O⁴ normally holds the slide O in the position shown in Figs. 5 and 6. Now when the leaves K and L are in an extended position, as shown in Fig. 2, and a slight discrepancy exists between the joints in adjacent section-leaves then by slightly pushing the table-sections A A' toward each other causes the slide O to yield against the tension of the spring O⁴ to allow of moving the auxiliary leaves closer together to complete the table-top.

In order to lock the table when in a closed position or when either of the leaves or a number thereof are in position to extend the table, I provide the following device: The rail H', which is preferably made L-shaped or of angle-iron, has its vertical member formed with a series of spaced notches H² H³ H⁴ H⁵ H⁶, adapted to be successively engaged by a bolt or pin P, held on the free end of a spring P', secured in the head Q' of a rail Q, attached

to the upper side of the bottom C⁶ of the frame C. A wedge R is mounted to slide in the head Q' under the free end of the spring P', so as to impart an upward swinging motion to the spring P' to lift the pin or bolt out of register with the corresponding notch H², H³, H⁴, H⁵, or H⁶ to allow of moving the table-sections apart or of pushing them together, as the case may be. The pin or bolt P is also adapted to register with a notch Q² in the head Q', so that when the bolt engages the corresponding registering notch H², H³, H⁴, H⁵, or H⁶ then the sections cannot be moved apart or pushed together. The wedge R referred to is secured on a rod R', mounted to slide on the rail Q, and extends to the end of the frame C to carry at its outer end a knob R², adapted to be taken hold of by the operator to push said rod R' inward so as to move the wedge R in engagement with the free end of the spring P' to lift the pin or bolt P out of the registering notches to unlock the table-sections and to allow of drawing the same apart or pushing the same together. A spring R⁴ is attached at one end to the rail Q and at its other end to the rod R', so as to hold the latter normally in an outermost position, with the wedge R out of engagement with the free end of the spring P'. On the rod R' is arranged a collar R⁵, adapted to engage a projection Q³ on the rail Q to limit the outward movement of the rod R', caused by the spring R⁴. When the table is closed, the pin or bolt P engages the notch H², and thus locks the said table in a closed position. When it is desired to extend the table by the leaf J, the operator pushes the knob R² inward to cause the pin P to disengage the notch H², and then the two sections are drawn apart, as above explained, to cause the leaf J to swing into position, and at this time the pin P snaps into the notch H³, thus locking the table-sections in place, the leaf J being in an extended position. If the next leaf I is to be extended, the operator has again to press the knob R² to disengage the bolt P from the notch H³ before the table-sections can be drawn farther apart, and when the leaf I is in position at the table-top the bolt P snaps into the notch H⁴, thus again locking the table-sections in place. In a like manner the pin P engages the notch H⁵ when the leaf K is in place, and the pin P engages the notch H⁶ when the leaf L is in place, so that the table is locked when in a closed position or when either of the leaves is in an extended position.

Instead of using friction-rollers on the arms of the auxiliary leaves I, J, K, and L, I prefer to employ supporting pivoted legs or levers L⁵, normally lying on tracks V. (See dotted lines in Fig. 7.) When the table-sections are drawn apart, the leg L⁵ for a particular auxiliary leaf travels along the track and finally comes in contact with a shoulder V', so that upon a further moving apart of the table-sections a swinging motion is given to the arm L⁴ to move the leaf in position, as

shown in full lines in Fig. 7. Otherwise the construction is the same as above described.

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

5 Patent—

1. An extension-table, comprising two separable connections, arms pivoted to swing in the arc of a circle at the central portion of the table and carrying auxiliary leaves rigid
10 with the table-arms, so as to be capable of moving from an inclined position to a horizontal position, means for moving said leaves into position as the table-sections are moved apart, a locking device for locking the sections in position when the table is closed or
15 extended by one or a plurality of leaves, the said locking device comprising a notched rail secured to one of the table-sections, a bolt for engaging the notches in the rail, a spring carrying said bolt at its free end and secured at the other end to the other table-section, and a spring-pressed rod under the control of the operator and having a wedge at one end adapted to slide under the free end of the spring to
20 work the said bolt, substantially as shown and described.

2. An extension-table, comprising two separable sections, auxiliary leaves, arms rigidly carrying said leaves, a spring-pressed slide on
30 which the arms are pivoted, to allow the arms to swing in an arc of a circle at the central portion of the table, and to move the said leaves from an inclined position to a horizontal position, the slide being free to move to closely join the leaves and the tops of the
35 table-sections when the latter are slightly pushed toward each other, substantially as shown and described.

3. An extension-table, comprising two separable sections, tracks on said sections, arms pivoted to swing in the arc of a circle at the central portion of the table and carrying auxiliary leaves rigid with said arms, so as to be
40 capable of moving from an inclined position to a horizontal position movable means carried by said arms and adapted to travel on said tracks to raise said auxiliary leaves as the sections are moved apart, and means whereby sundry of said auxiliary leaves,
45 when in the horizontal position have a limited movement, for the purpose set forth.

4. An extension-table provided with sections slidably connected with each other, to permit of drawing the sections apart, arms
50 pivoted to swing in the arc of a circle, and carrying auxiliary leaves rigid with the said arms, levers pivoted on the said arms, stops adapted to engage the free ends of the levers when the sections are drawn apart, to impart a swinging motion to the said arms to
55 move the auxiliary leaves into position between the table-sections, and means whereby sundry of said auxiliary leaves when in posi-

tion have a limited movement, for the purpose set forth.

5. An extension-table having a slide forming the fulcrum or pivot for the arms with longitudinal slot, provided with a spring to admit of the auxiliary leaves yielding and moving closer together when the edges of the
65 leaves come to the end of the slot in the side of the table-sections.

6. An extension-table provided with separable sections, arms pivoted to swing in the arc of a circle at the central portion of the
75 table and carrying auxiliary leaves rigid with the said arms, levers pivoted at one end on the said arms, and adapted to impart a swinging motion to the arms to move the auxiliary leaves into position on drawing the sections
80 apart, tracks for the levers to travel on, shoulders at the ends of the tracks for the free ends of the levers to abut on, means whereby the auxiliary leaves when swung into position can be moved to closely join the
85 auxiliary leaves and the tops of the table-sections, and a locking device for locking the table-sections in position, substantially as shown and described.

7. An extension-table comprising two separable sections, auxiliary leaves arms pivoted to swing and carrying said leaves, and a slide having a limited longitudinal sliding movement and on which sundry of said arms are
90 pivoted, for the purpose set forth.

8. An extension-table provided with separable connections, table-arms pivoted to swing in the arc of a circle at the central portion of the table and carrying auxiliary leaves rigid with the table-arms, a slide forming the fulcrum or pivot for the arms, the said slide being spring-pressed and having longitudinal slots, and pins extending through said slots, whereby the slide has a limited longitudinal sliding movement, for the purpose set forth.
105

9. An extension-table, comprising two separable sections, arms pivoted to swing in the arc of a circle and carrying auxiliary leaves rigid with the table-arms, means for moving said auxiliary leaves into position as the table-sections are moved apart, and a locking device for locking the sections in position, the said locking device comprising a notched rail secured to one of the table-sections, a spring secured to the other table-section and carrying a pin or bolt at its free end for normally engaging the notches in the rail, a spring-pressed rod having a head for moving the spring to disengage the pin or bolt, and means for limiting the outward movement of the rod,
115 120 substantially as described.

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Witnesses:

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