

(No Model.)

4 Sheets—Sheet 1.

F. REEVE.
CAR FENDER.

No. 566,225.

Patented Aug. 18, 1896.

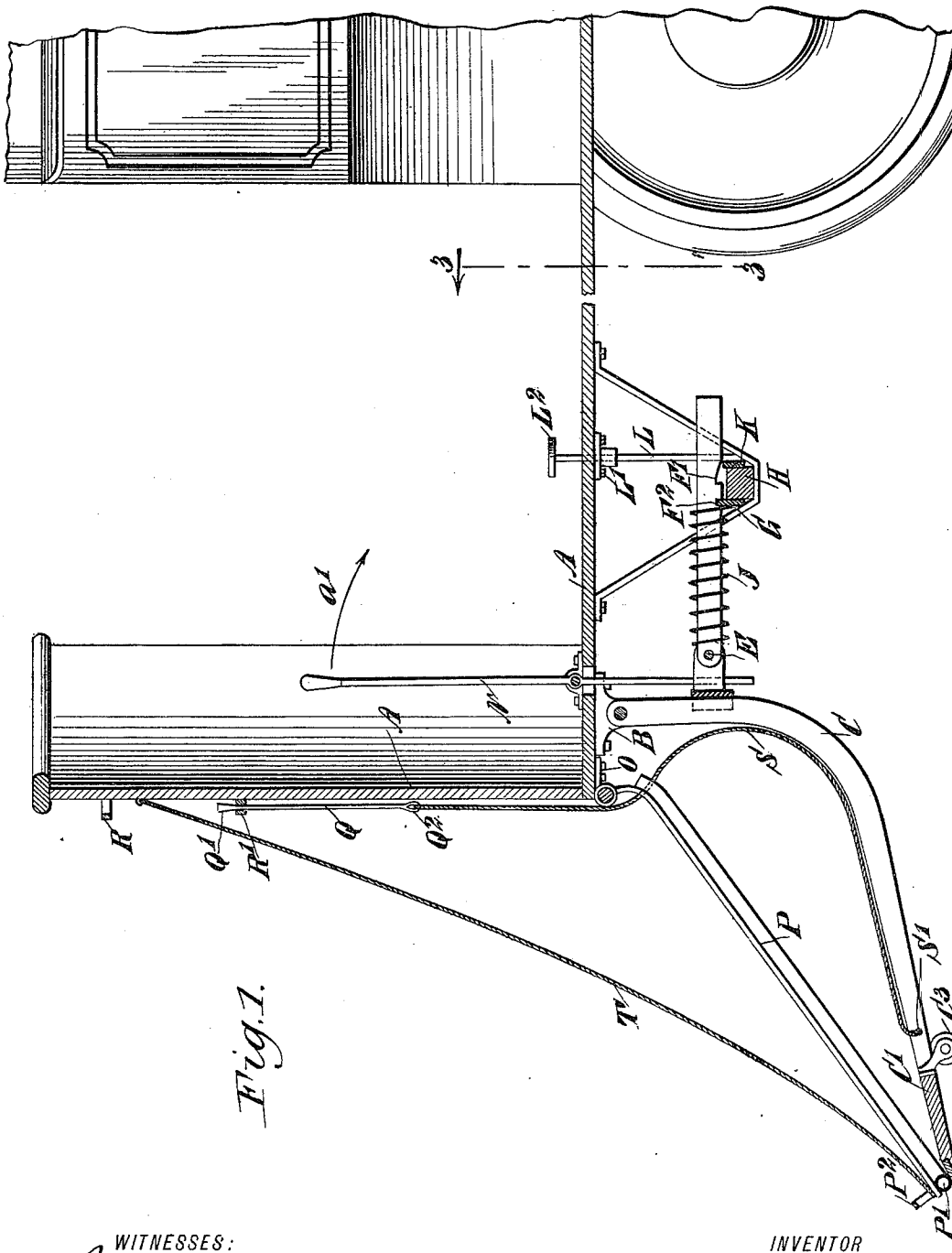


Fig. 1.

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ATTORNEYS

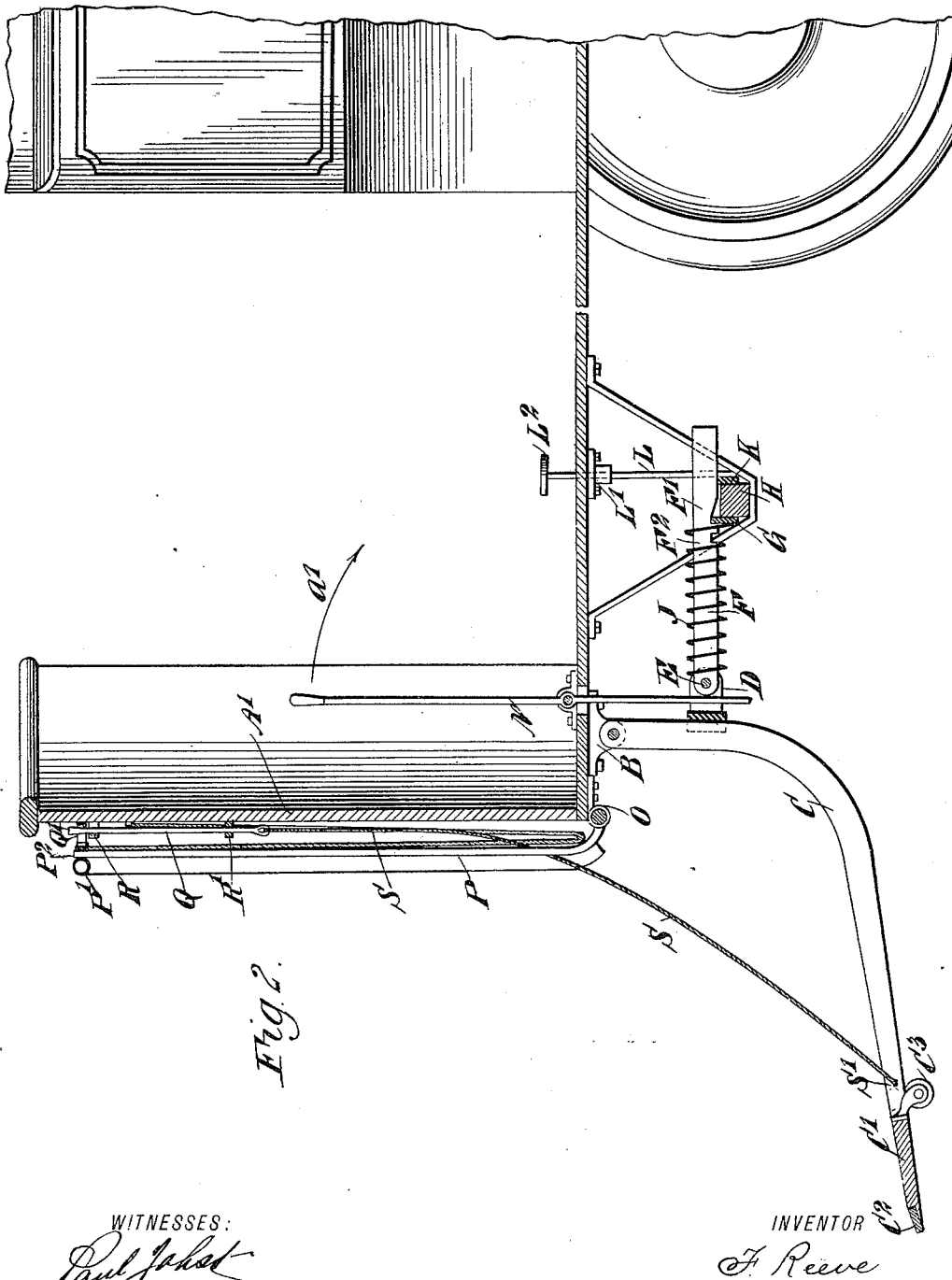
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Patented Aug. 18, 1896.



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(No Model.)

4 Sheets—Sheet 3.

F. REEVE.
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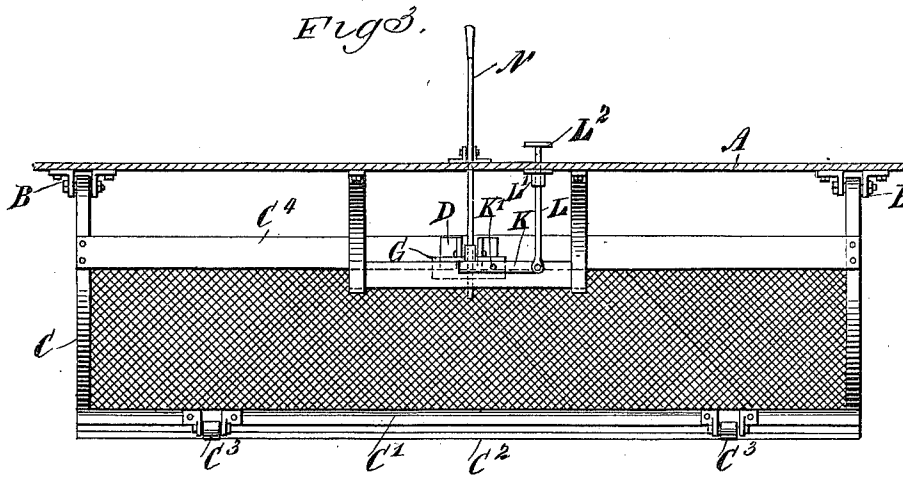
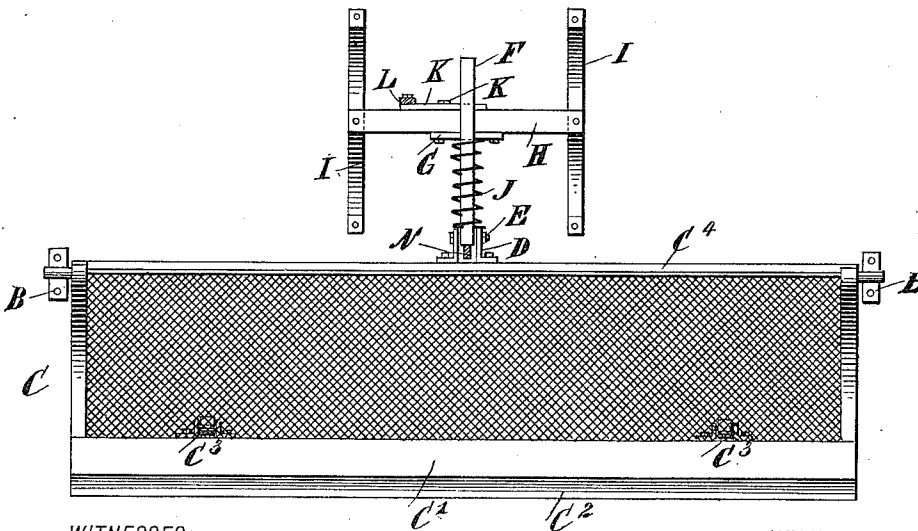


Fig. 4.



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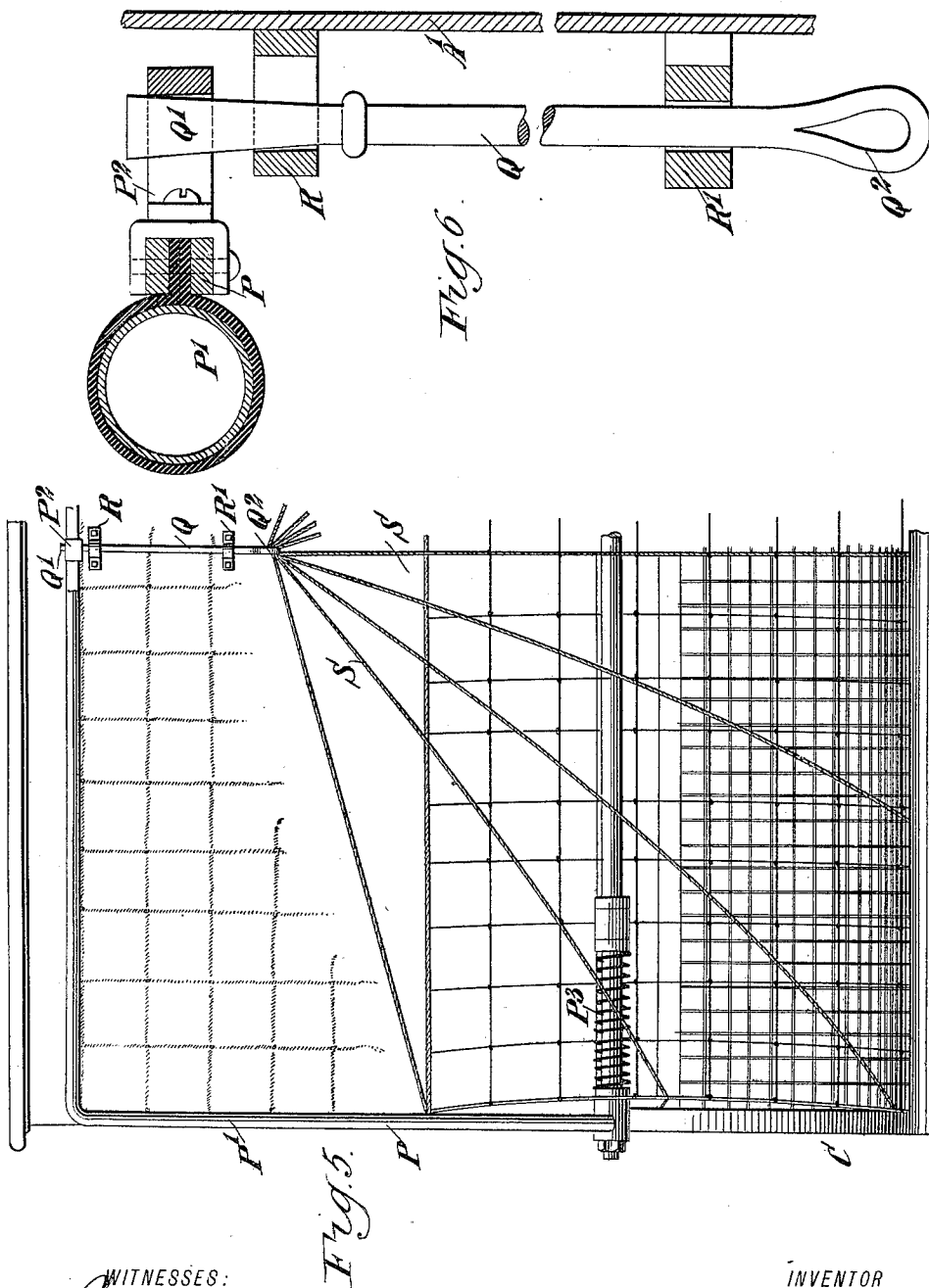
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4 Sheets—Sheet 4.

F. REEVE.
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UNITED STATES PATENT OFFICE.

FREDERIC REEVE, OF STOCKTON, CALIFORNIA.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 566,225, dated August 18, 1896.

Application filed January 4, 1896. Serial No. 574,320. (No model.)

To all whom it may concern:

Be it known that I, FREDERIC REEVE, of Stockton, in the county of San Joaquin and State of California, have invented a new and Improved Car-Fender, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved car-fender which is simple and durable in construction, very effective in operation, and arranged to permit the basket to swing into a lowermost position to be automatically locked therein after the guard is once released by the operator in charge of the car, and when the object is struck by the fender a cover or net is lowered automatically to prevent the object from rebounding.

The invention consists of a hinged guard or scoop, a notched bar pivotally connected with the said guard and pressed on by a spring, a fixed plate adapted to be engaged by the said notched bar, and a foot-lever for raising the said bar to lift it out of engagement with the said plate and permit the guard to swing down.

The invention further consists in a hinged frame and net, spiral springs to throw said frame down, a locking device to hold said frame in an upright position, and a net to open said locking device when the said net is struck by an object.

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

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement as applied. Fig. 2 is a similar view of the same with the guard in a normal or raised position. Fig. 3 is a reduced cross-section of the same on the line 3 3 of Fig. 1. Fig. 4 is a reduced sectional plan view of the same. Fig. 5 is a front elevation showing part of the fender and nets in a raised position, and Fig. 6 is an enlarged sectional side elevation showing the netted frame and bar for releasing the same.

On the under side of the car-platform A and near the front thereof are arranged the bearings B, in which is hinged a guard or

scoop C, extending upwardly and rearwardly, so as to pick up a person or obstruction in the path of the car. On the front lower bar C' of the scoop C is secured a transversely-extending strip C², of rubber, leather, or like soft material, to prevent serious injury to a person at the time the front end of the scoop strikes the same. On the cross-bar C' are secured rollers C³, adapted to travel on the track whenever the scoop or guard C swings into a lowermost position, as illustrated in Fig. 1.

The scoop or guard C is provided near its upper pivot end with a cross-bar C⁴, carrying rearwardly-extending lugs D, in which is held the pivot E of a bar F, extending rearwardly in an approximately horizontal position, as plainly illustrated in Figs. 1 and 2. This bar F is supported at its rear end on a plate G, secured on a transversely-extending beam H, carried by hangers I, attached to the under side of the car-platform A.

The bar F is provided with two notches F' and F², adapted to engage the plate G to hold the guard or scoop C in an uppermost position, as shown in Fig. 2—that is, with the free end of the guard raised a suitable distance above the track—or to lock the said guard in a lowermost position, as is illustrated in Fig. 1, the notch F² then engaging the plate G. A spring J is coiled on the bar F and is fastened at one end to the plate G, so as to pull on the said bar F in a rearward direction to insure a quick downward swinging of the scoop C whenever the bar F is lifted to disengage the notch F' from the plate G. For lifting the said bar F, I provide a lever K, extending transversely and fulcrumed on the beam H, (see Figs. 3 and 4,) the said lever K being pivotally connected with a vertically-disposed rod L, guided in suitable bearings L', held on the car-platform A, the said rod L extending upward above the platform, to be engaged at its top plate L² by the foot of the operator in charge of the car.

In order to move the guard C into an uppermost position, I provide a lever N, fulcrumed on the platform A and adapted to engage the cross-bar C⁴ to permit the operator in charge of the car to press the said cross-bar forwardly by pulling the lever in the direction of the arrow a'. In doing so the guard C is swung from its lowermost po-

sition (shown in Fig. 1) into a forward or raised position, (illustrated in Fig. 2,) it being understood, however, that during this operation the rear end of the bar F is lifted by the lever K, so as to be clear of the plate G.

On the under side of the car-platform A and at or near the front end thereof are secured bearings O for a frame P, normally held in an uppermost position, as shown in Fig. 2, but adapted to swing downward to rest with its front end on the strip C² of the guard or scoop C, as shown in Fig. 1. The sides and front of the frame P are cushioned by a pneumatic or elastic rim P', and on the top of the frame is secured a loop or keeper P², adapted to be engaged by the wedge-shape head Q' of the bolt Q, held to slide vertically in the bearings R R', secured to the dashboard A'. The lower end of the bolt Q is formed with a loop Q², engaged by a net S, which hangs downward and outward and is fastened at its forward end to a transverse rod S', attached to the side bars of the scoop C. If any object strikes or falls onto the net S, it is pressed rearwardly and downwardly and pulls on the bolt Q to withdraw the head Q' thereof from the keeper P² to permit the frame to swing downward by the action of spring P³, coiled on the front of the said frame, as shown in Fig. 5. On the free end of the frame P is attached one end of a net T, secured at its other end to the dashboard A', near the upper end thereof. Normally the net T is doubled up between the frame P and dashboard; but when the frame P swings downward the net is stretched downwardly and forwardly, as indicated in Fig. 1.

The operation is as follows: When the several parts are in a normal position, as illustrated in Fig. 2, and the operator in charge of the car notices a person or other obstruction in the path of the car, then he presses the rod L with his foot to cause the lever K to swing the bar F upward out of engagement with the notch F'. The bar F is thus unlocked and the guard or scoop C can swing downward and rearward into the position shown in Fig. 1 by its own weight, assisted by the action of the spring J. The operator, upon releasing the rod L, permits the lever K to swing back to its normal position, so that the bar F engages with its notch F² the plate G to lock the said bar F and guard or scoop C in a lowermost position. By this arrangement it is impossible for a person or other obstruction on the track to pass under the car.

By the use of the net T a party falling into the same is prevented from rebounding forwardly, owing to the net coming down in front of the party, so that the latter is safely held between the nets S and T. This action of the net T takes place whether the scoop C is in a raised or lowered position.

Having thus fully described my invention,

I claim as new and desire to secure by Letters Patent—

1. A car-fender, comprising a hinged guard or scoop, a notched bar pivotally connected with the said guard, a fixed plate adapted to be engaged by the said notched bar, and means for raising the said bar, to lift it out of engagement with the said plate, to permit the guard to swing downward, substantially as shown and described.

2. A car-fender, comprising a hinged guard or scoop, a notched bar pivotally connected with the said guard, a fixed plate adapted to be engaged by the notches of the said bar, a lever adapted to lift the said bar out of engagement with the said fixed plate, and a rod under the control of the operator and connected with the said lever, to impart a swinging motion to the latter, substantially as shown and described.

3. A car-fender, comprising a hinged guard or scoop, a notched bar pivotally connected with the said guard, a fixed plate adapted to be engaged by the notches of the said bar, a lever adapted to lift the said bar out of engagement with the said fixed plate, a rod under the control of the operator and connected with the said lever, to impart a swinging motion to the latter, and a pull-spring on the said bar, substantially as shown and described.

4. In a car-fender, the combination of a pivoted scoop, a notched plate connected to the scoop, a rigid plate with which the notched plate coöperates, a lever capable of lifting the notched plate, and a second lever capable of swinging the scoop, substantially as described.

5. In a car-fender, the combination of a scoop, a hingedly-mounted frame having an eye, a net carried by the frame, a vertically-movable catch capable of engaging the eye, and means for moving the catch out of said eye to permit the frame to drop, substantially as described.

6. The combination with a car-platform and its dashboard, of a scoop, a hingedly-mounted frame having an eye, a vertically-movable catch carried on the dashboard and capable of passing into the eye, and means for moving the catch out of the eye to permit the frame to drop, substantially as described.

7. In a car-fender, the combination of a scoop, a hingedly-mounted frame having an eye, a vertically-movable catch capable of passing into the eye and of holding the frame in an elevated position, a net carried by the frame, and a connection between the scoop and the catch, substantially as described.

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Witnesses:

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