

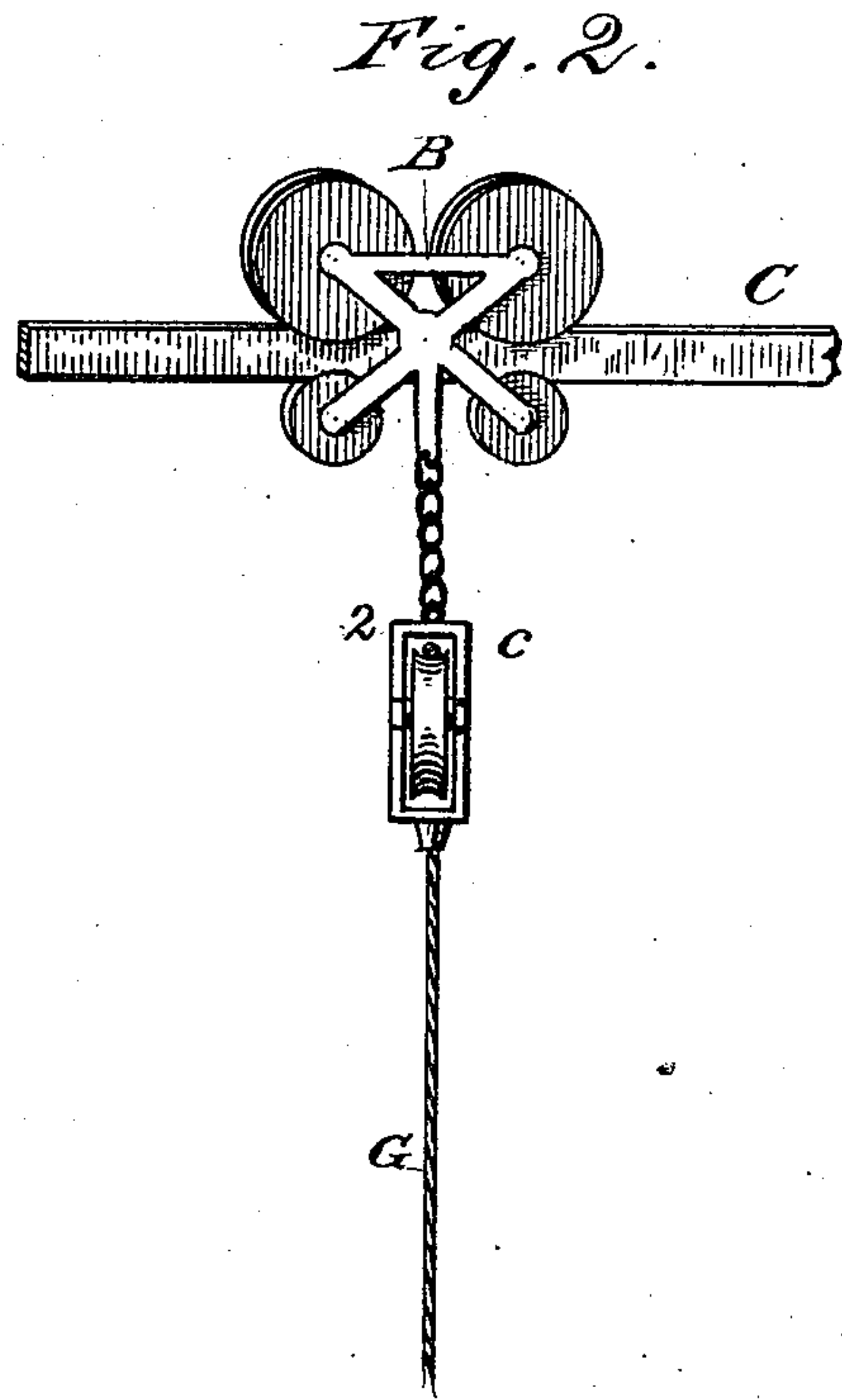
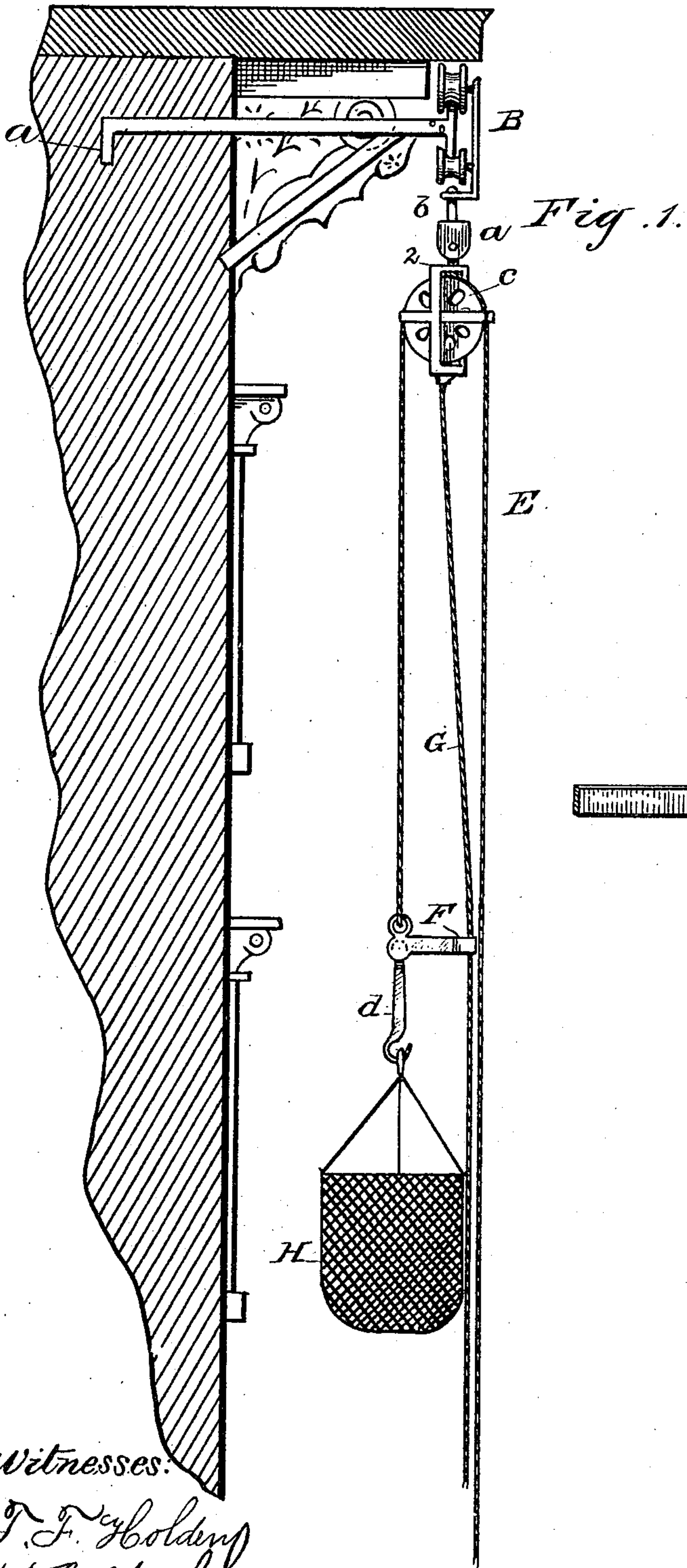
(No Model.)

J. A. JOHNSON.

FIRE ESCAPE.

No. 291,910.

Patented Jan. 15, 1884.



Witnesses:

T. F. Holding
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JOHN A. JOHNSON, OF CHICAGO, ILLINOIS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 291,910, dated January 15, 1884.

Application filed January 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. JOHNSON, of Chicago, county of Cook and State of Illinois, have invented certain Improvements in Fire-
Escapes, of which the following is a specification.

I am aware that fire-escapes have long been in use showing the rail or track with a traversing hanger thereon, and that baskets or
cars have, by means of a rope and pulley, been hoisted and lowered at will.

The object of my invention is to give additional security to fire-escapes, and to provide for their use at any angle from the point of suspension without liability of displacing the hanger from the track which it traverses or overturning the basket or car. I accomplish this by providing a double-face rail, a traversing hanger secured to the rail by an upper and lower set of guide-wheels, a free movement of the pulley-frame where it connects with the traversing hanger, a guide-rope attached to the bottom of the pulley-frame and running through a safety guide-ring connected with the car and hoisting-rope. This will more fully appear by reference to my drawings.

Figure 1 is a sectional view of the front of a building, with my improved fire-escape in position. Fig. 2 is a traversing hanger, with an upper and lower set of guide-wheels adjusted to the upper and lower edges of the rail or track.

In Fig. 1 A is a bracket, securely fastened into the wall below the eaves and above the line of the upper windows, its outer end forming a T-rail.

B is a traversing hanger, with an upper and lower set of guide-wheels adjusted to the upper and under edges of the rail C.

D is a pulley-frame connected with the traversing hanger by means of a hinge, *a*, and swivel-bolt *b*, or by a chain, as shown in Fig. 2.

E is the hoisting-rope running over the pulley *c*, and supporting the basket H by means of the hooked arm *d*, hinged to the arm of the safety guide-ring F.

G is a guide-rope fastened to the bottom of the pulley-frame and running through the safety guide-ring F.

H is the basket or car supported by the

hoisting-rope, and attached thereto by means of the arm hinged to the arm of the safety guide-ring F.

The pulley-frame may be connected with the traversing hanger by means of a chain, as shown in Fig. 2, instead of a hinge and swivel-bolt represented in Fig. 1, the object being to permit the guide-rope and pulley to operate in the same line of direction at any required angle.

It will be seen that my invention tends to prevent the displacement from its track of the traversing hanger, the upper and lower guide-wheels acting upon the track in such a manner as to equalize the strain of the guide-rope, come from whatever direction it may.

It will also be seen that the guide-rope and safety guide-ring tend to keep the basket or car in an upright position when worked from a point distant from the line of the burning building.

The safety guide-ring serves a double purpose. It prevents the overturning of the basket by preserving the line of gravity over its center, and in case the hoisting-rope should break it acts as a frictional brake by instantly throwing the opening of the guide-ring at right angles with the guide-rope, thus preventing the too rapid descent of the car or basket. The same effect will be produced if the car is overloaded.

The track should be of wrought-iron or other suitable metal, and may be extended around the entire building, the corners being turned by curves, so formed as to permit the free movement of the traversing hanger.

The car or basket should be made of wire or other non-combustible material, with an upper bail having a ring in its center for the attachment of the hoisting-hook.

The ropes may be of hemp or wire, the latter being preferable.

I claim—

1. In a fire-escape, the combination of a horizontal arm having an eye at one end acting as a guide for a rope passing vertically through said eye, a supporting hook or arm hinged to and dependent from the opposite end of said horizontal arm, a hoisting-rope connected with said horizontal arm above and in a line with the supporting-hook, and a bas-

ket or cage supported from said hook, substantially as set forth and described.

2. In combination with the bracket, rail, and traversing hanger of a fire-escape, a guide-rope passing through a guide-ring and secured to the base of a pulley-frame, a pulley connected by a chain to the base of the hanger, a hoisting-rope supporting a basket by means of

a horizontal arm with guide-ring in end, and a supporting-hook hinged to said arm, substantially as set forth and described. 10

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Witnesses:

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