

(No Model.)

E. HORTON.

METHOD OF ORNAMENTING METAL SURFACES.

No. 278,552.

Patented May 29, 1883.

fig. 1

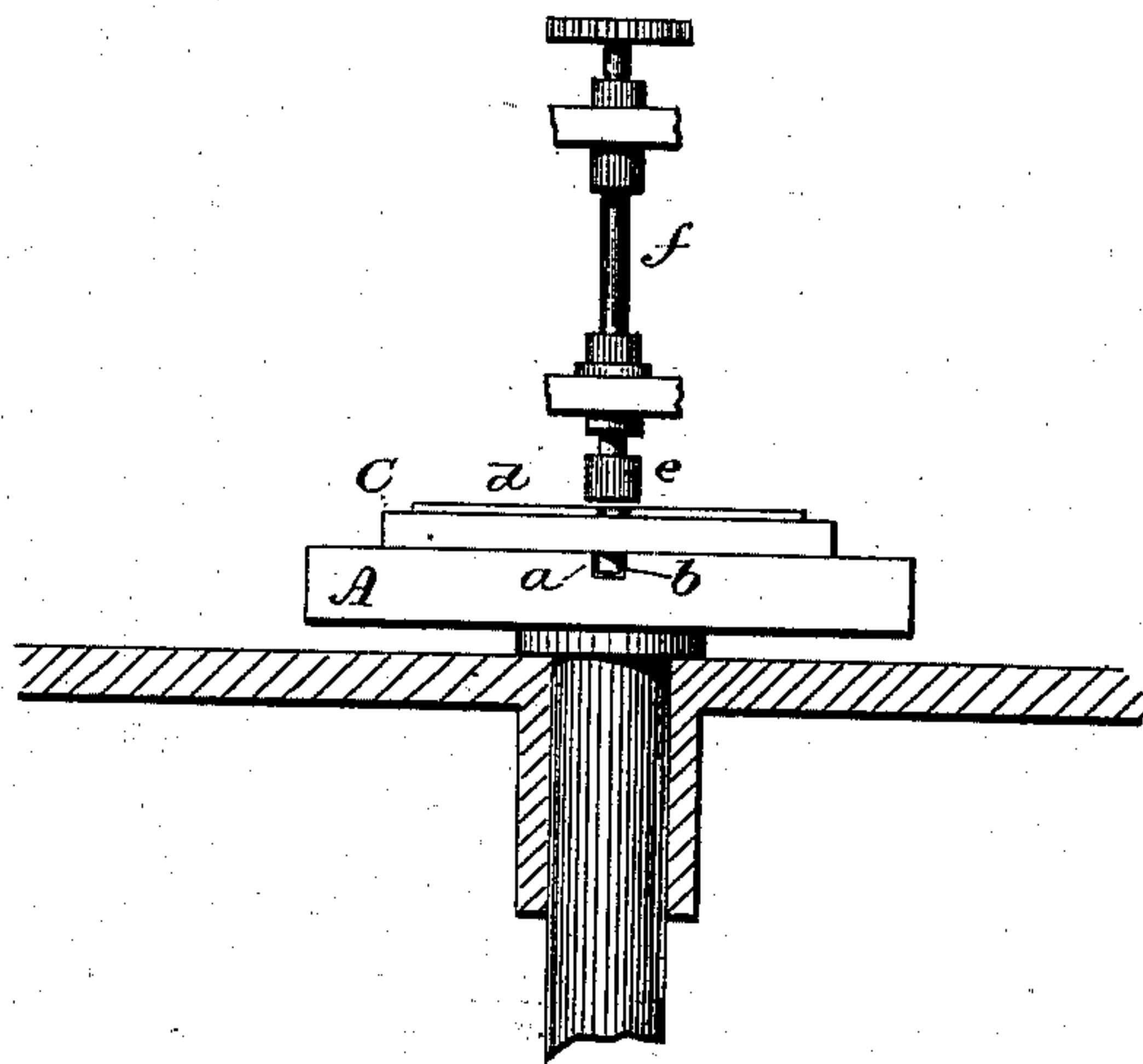
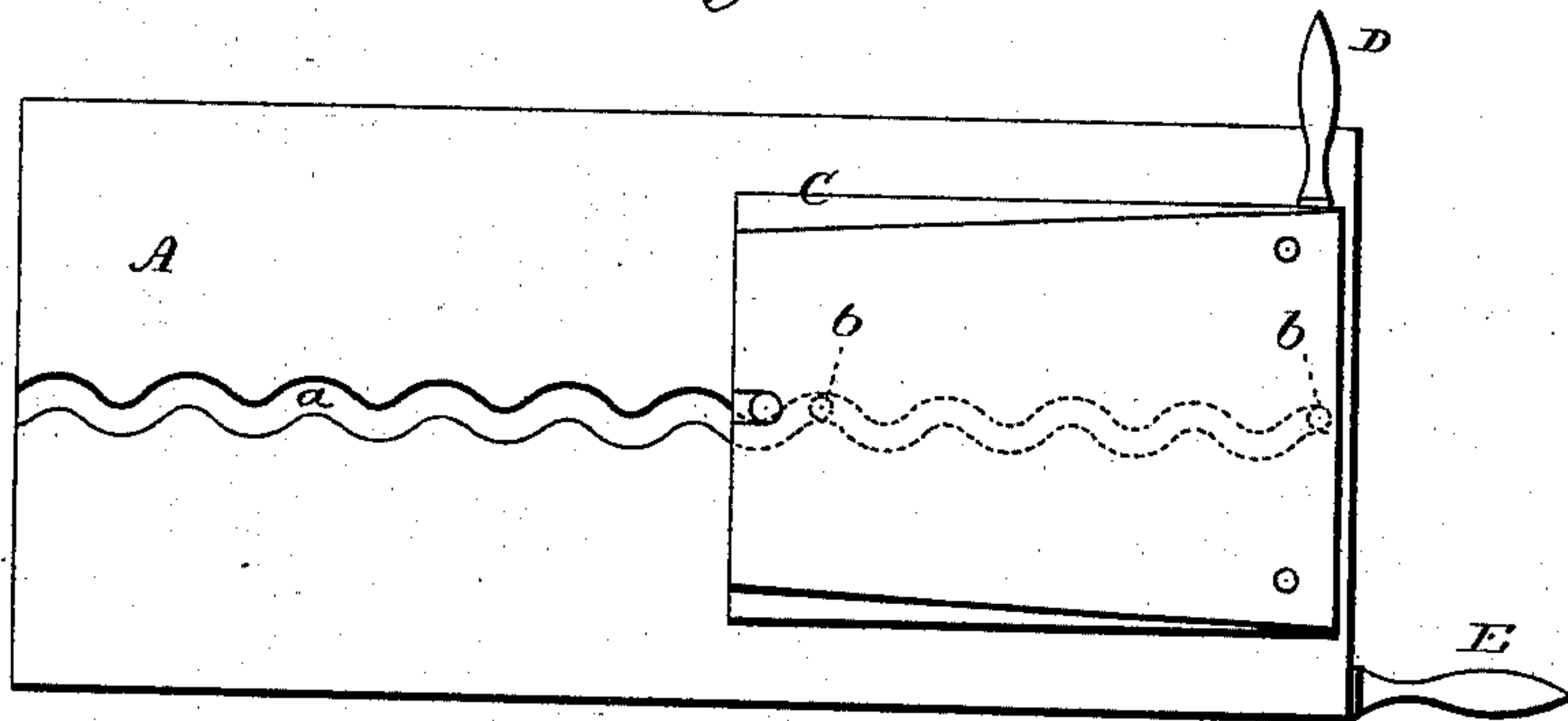


fig. 2



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METHOD OF ORNAMENTING METAL SURFACES.

SPECIFICATION forming part of Letters Patent No. 278,552, dated May 29, 1883.

Application filed March 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, EVERETT HORTON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in the Method of Ornamenting Metal Surfaces; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, an end view of the machine; Fig. 2, a top view.

This invention relates to an improvement in the method of ornamenting the flat surfaces of metal plates, with special reference to the plates of clock-movements, but applicable to other purposes, the object being to give to the surface a waved or what is sometimes called a "watered" appearance; and the method consists in subjecting the plate to the action of a revolving tool, the axis of revolution being at substantially right angles to the plane of surface to be ornamented, and, while the tool is operating upon the surface, imparting to the plate to be ornamented a combined advancing and oscillatory movement in a plane at substantially right angles to the axis of the revolving tool, and as more fully hereinafter described.

The machine by which this method is carried into operation constitutes the subject of an independent application for Letters Patent filed in even date herewith; but I show in the accompanying illustration so much of that machine as will enable those skilled in the art to carry out my new method of ornamenting metals. This machine consists of a bed, A, arranged upon a vertical spindle, B, and so that the bed may be oscillated upon the spindle B as its axis of oscillation. On the upper surface of the bed A a serpentine groove, *a*, is made, extending from end to end. Onto this bed a platen, C, is placed, having upon its under side two studs, *b*, one near either end. This platen C is movable longitudinally on the surface of the bed A, and in such longitudinal movement the studs *b*, working in the serpentine groove *a*, will impart to that platen an oscillatory movement corresponding to the path

or line of the groove *a*, independent of the movement of the bed itself. Onto this platen C the plate, *d*, to be ornamented is secured. Above the bed is a cutter, *e*, attached to a vertical spindle, *f*, supported in suitable bearings, and to which a revolving movement is given by the application of power thereto, the face of the cutter being substantially parallel with the surface of the plate to be ornamented, and is adjusted so as to just dress the surface. This cutting-surface may be that commonly known as a "mill;" or cutters may be applied in any known or convenient manner; or, instead of cutters, a mass of steel points may be inclosed in cylindrical form, the points acting upon the surface like cutters. The operator, having secured his plate, *d*, to be ornamented to the platen C, moves the platen C forward in a longitudinal line by a handle, D, and at the same time imparts an oscillatory movement to the bed A—say by means of the handle E. This combined oscillatory movement of the bed A, and the serpentine path imparted to the platen which carries the plate, produces such a path for the cutter on the surface that the circular cuts or marks produced by the cutter give to the surface a watered or laminated appearance, highly pleasing to the eye, and giving to the surface the appearance of a very expensive finish. One cutter having passed once over the surface on one line, the platen may be returned, the cutter passing near the first line of cut, but varying because of the necessarily varying movement of the plate, and so on until the entire surface of the plate has been treated.

I claim—

The method herein described of ornamenting the surface of metal plates, consisting in imparting to the plate an advancing movement in a serpentine path, combined with an oscillatory movement, independent of said serpentine path, beneath a tool revolving in a plane at substantially right angles to the plane of the surface to be ornamented, substantially as described.

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Witnesses:

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