

(No Model.)

T. BOETTCHER.
TWO WHEELED VEHICLE.

No. 316,002.

Patented Apr. 21, 1885.

FIG. 1.

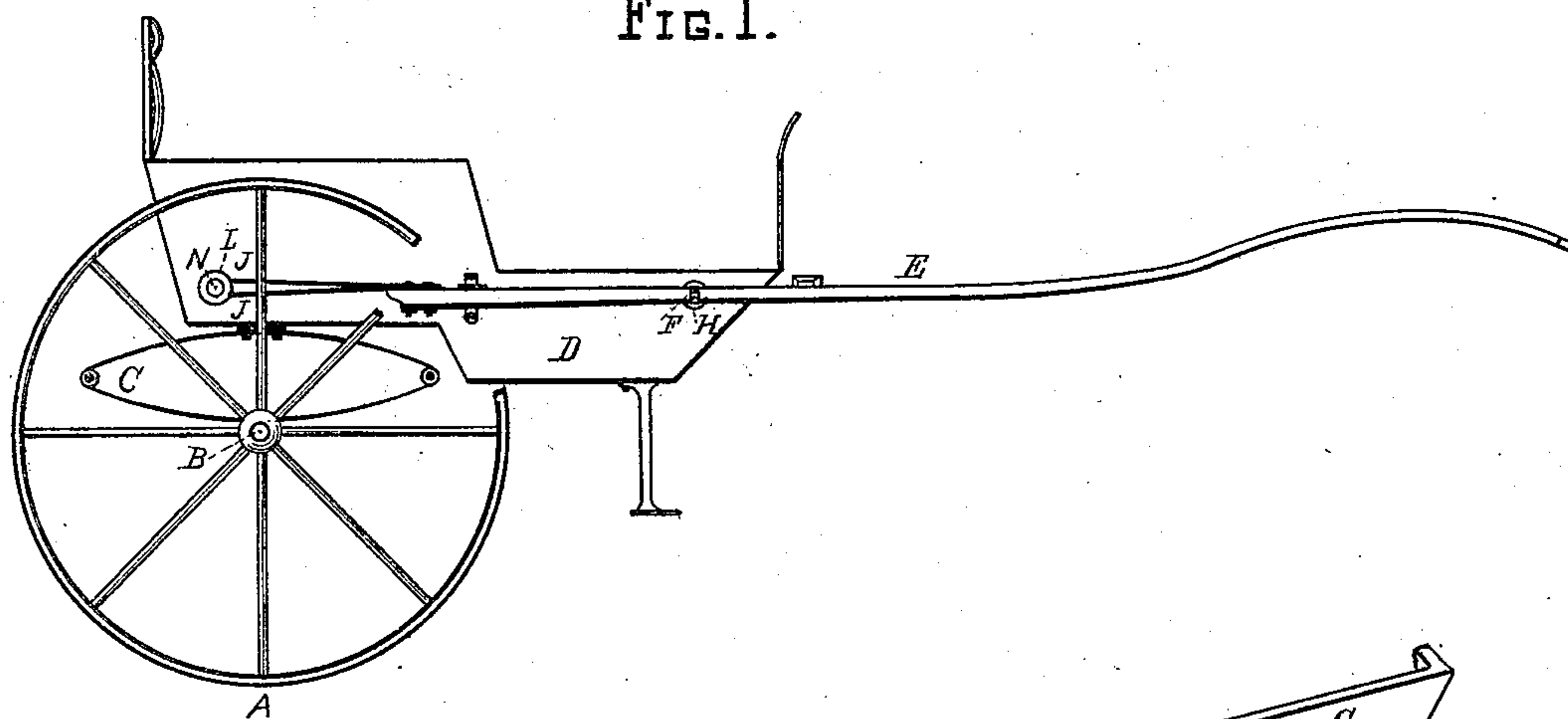


FIG. 2.

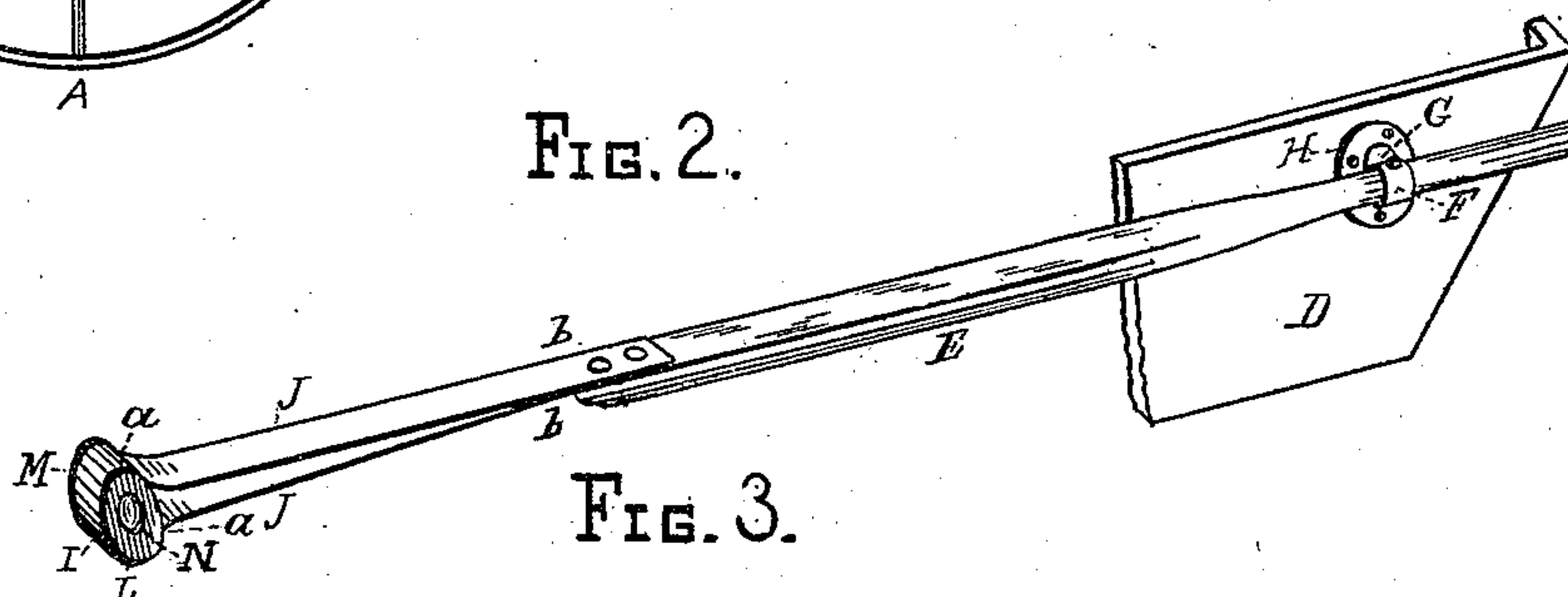


FIG. 3.

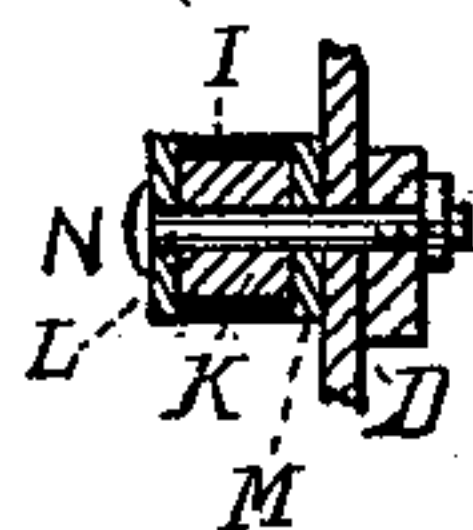
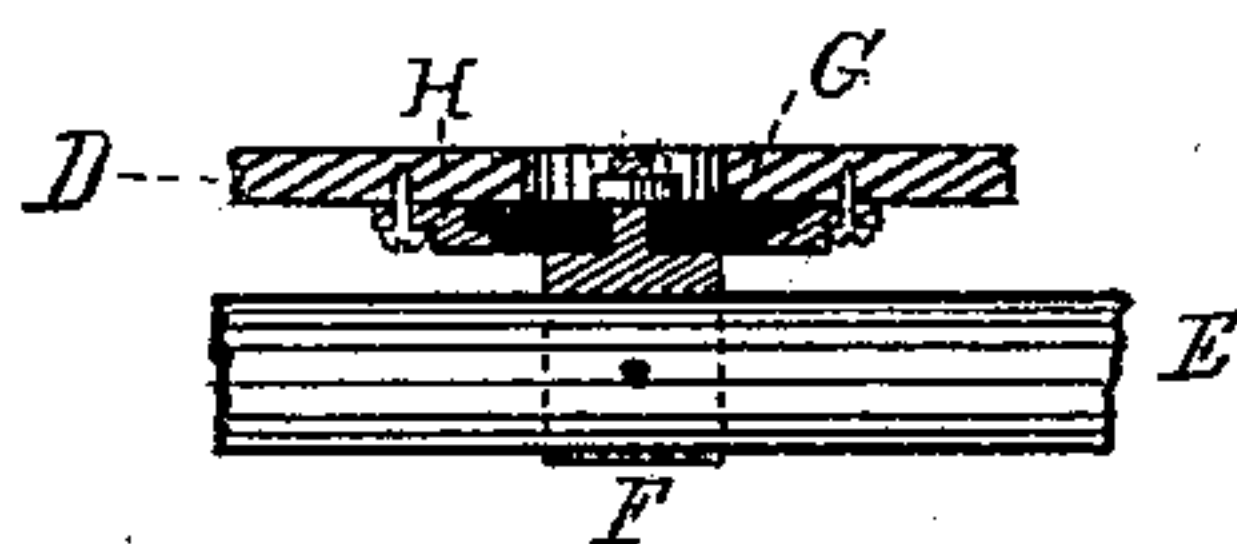


FIG. 4.



WITNESSES:

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THEODOR BOETTCHER, OF MENDOTA, ILLINOIS.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 316,002, dated April 21, 1885.

Application filed November 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, THEODOR BOETTCHER, of Mendota, in the county of La Salle and State of Illinois, have invented new and useful Improvements in Road-Carts, of which the following is a specification, reference being had to the accompanying drawings, illustrating the invention, in which—

Figure 1 is a side elevation of a road-cart embodying my invention; Fig. 2, an enlarged perspective view of a portion of the body and shaft with the spring and pivot connections; Fig. 3, an enlarged vertical section of the spring and its pivot on line *x*, Fig. 1; Fig. 4, an enlarged horizontal section of the mechanism by which the shafts are pivoted to the body.

This invention has for its purpose the employment of better means for overcoming the usual oscillating movement which the horse gives to the body of the road-cart where the shafts are attached to its sides. I attain this end by a sleeve and disk-plates for pivoting the shafts to the body and by rear bearings consisting of two-pronged eye-springs, the eyes of which turn on a spool-bearing, and the prongs are brought together and forward and bolted to the rear ends of the shafts, so that the upward and downward movement of the forward ends of the shafts is not communicated to the body.

I am aware that certain devices have been employed to attain this end, one of which is to use two-part shafts with a spring-connection, and others have employed springs lying under the shafts and also beneath the body; but former devices are not found to meet all the requirements for the purpose, and particularly because the springs employed are not in tension where the shafts and body are in a normal position—that is, where they have no movement relative to each other; hence the body is not kept so steady as where my two-pronged springs tend to keep the shafts and springs in line, except where there is such plentitude of shaft motion as would tip the body were it not for easing afforded by the springs. There is a large demand for strong stylish road-carts, and it is very desirable that the shaft attachments should be strong, neat, and simple, and at the same time

be such that the motion be not communicated to the body.

A is the wheels, B the axle-tree, C the springs, D the body, and E the shafts, of a road-cart of ordinary construction. The means for pivoting the shafts to the body consist of a sleeve, F, which is made solid to a disk-pivot, G, and is held to the body by a collar-plate, H, the disk-plate and collar being rabbeted, respectively, so that a flange on the collar overlaps the disk, as shown at Fig. 4. This part I prefer to cast of malleable iron, and for stylish carts to silverplate them, or otherwise tastefully ornament them.

The springs each consist of an eye, I, and two prongs, J J. The eye forms more than a half-circle, so as to be held to turn on a spool, K, which in practice should be from four to six inches in diameter and of a length to correspond with the width of the spring, which to be neat should be the width of the shaft.

I find the use of a plate, L, in front of the eye I, and a plate, M, back of it, and a bolt, N, put through the plates and spool into the body, as shown at Fig. 3, is a very convenient means for holding the spring so that its eye I will turn on the spool, also giving a neat appearance. The two prongs of the springs are brought together and bolted to the shaft E either on their top or bottom sides.

No longitudinal yielding connection need be made with the spring and shafts, because in action the springs will alternately lengthen and shorten between the points *a b a b*, so as to allow the shafts to oscillate without communicating their motion to the body.

The sleeve F may be substituted by an ordinary attaching-plate projecting out from the disk, and the shaft attachment have all the essential features of my invention.

To prevent an abnormal movement of the shafts, ordinary shaft-stops are attached to both sides of the body, as at Fig. 1.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In improvements in road-carts, the pivot attachments consisting of disk-pivots G and collar-plates H, rabbeted together, as described, with the sleeves F, bolted solid to the

disks, in combination with the body D and shafts E, substantially as and for the purpose specified.

2. The springs consisting of the eyes I and
5 prongs J J, the eyes being hung to turn on spools K, and the prongs brought together so as to leave a wedge-shaped space between them, and combined with the shafts E and body D, as and for the purpose specified.

3. The combination of the spring I J J, in spools K, constructed as specified, in combination with the disk, sleeve, and collar attachment F G H, shafts E, body D, and stops O, substantially as and for the purpose specified.

THEODOR BOETTCHER.

Witnesses:

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