

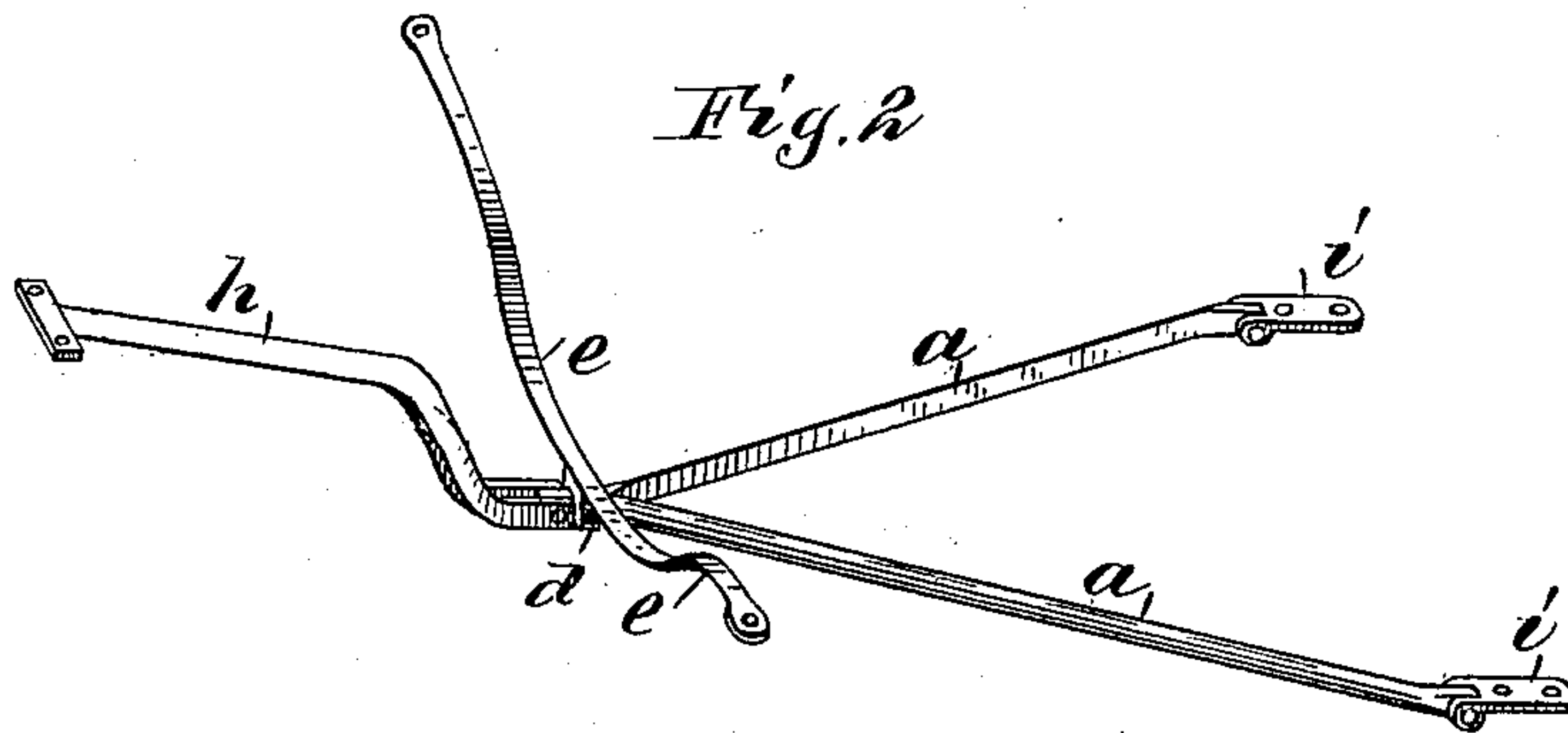
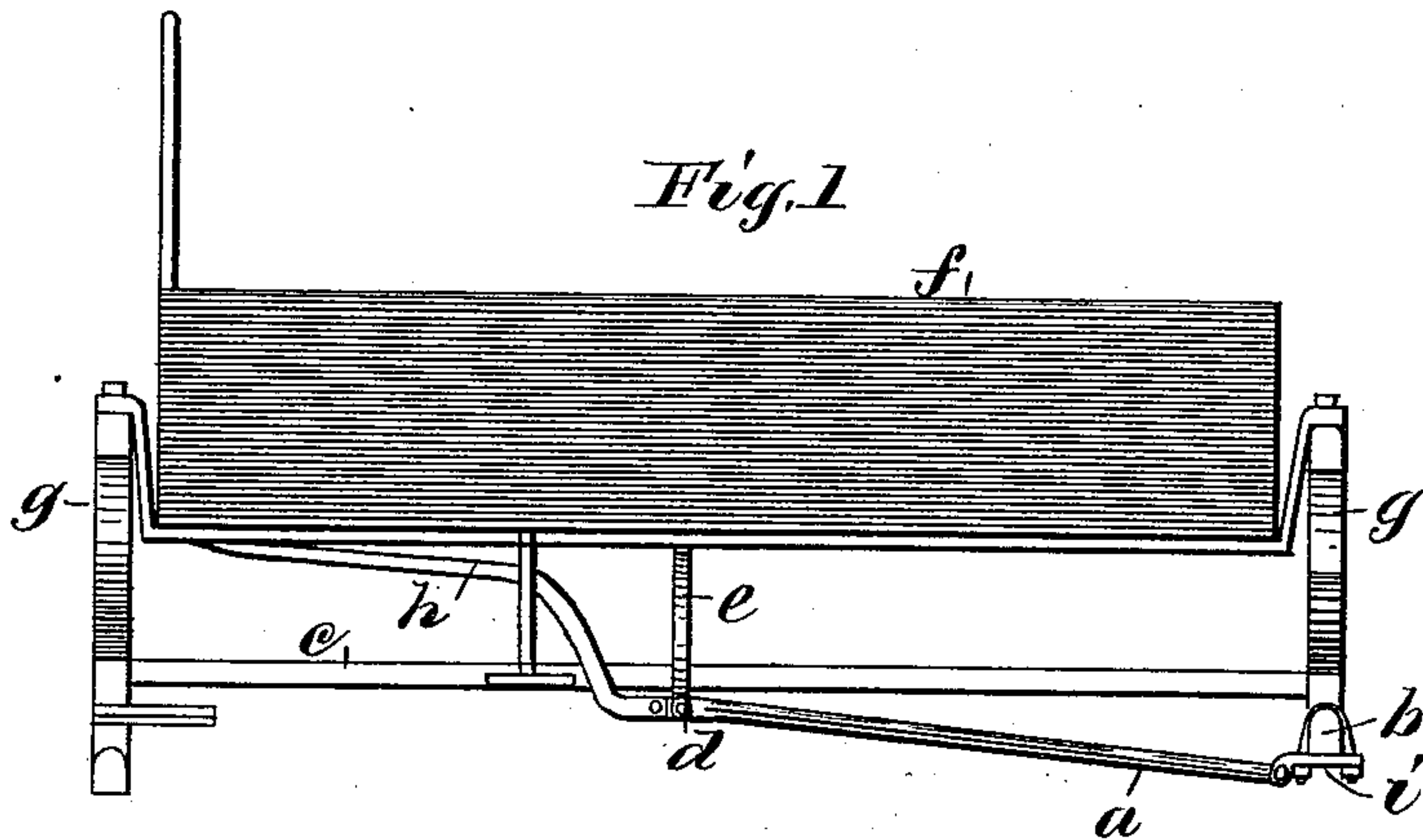
(No Model.)

N. WILLMES.

BRACE FOR SPRING VEHICLES.

No. 329,798.

Patented Nov. 3, 1885.



Witnesses
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UNITED STATES PATENT OFFICE.

NICKOLAS WILLMES, OF CHICAGO, ILLINOIS.

BRACE FOR SPRING-VEHICLES.

SPECIFICATION forming part of Letters Patent No. 329,798, dated November 3, 1885.

Application filed August 10, 1885. Serial No. 173,925. (No model.)

To all whom it may concern:

Be it known that I, NICKOLAS WILLMES, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Device for Staying Carriage-Bodies; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention, to be hereinafter distinctly claimed, is of a device for steadying or staying carriage-bodies, and is adapted especially for supporting and staying a carriage-body so that it will not tip or be depressed sidewise when a greater load is placed on one side than there is on the other side, as occurs when a person gets in or out of the carriage over the side in the usual way.

In the accompanying drawings, Figure 1 is a side view of a carriage or buggy box and so much of the buggy running-gear as is necessary to show my device, also connected and shown therewith. Fig. 2 is a perspective view of my device apart from the running-gear of the buggy. Fig. 3 is a detail.

Like parts are represented by the same reference-letters in all the views.

The horizontal branching arms *a a* are at their rear ends attached to the rear axle, *b*, at its lower front edge, near the wheels, in joints permitting vertical oscillation of the arms *a a*, and from said rear axle said arms project forward and converge, meeting at a point a little in front of the center of the buggy-box and beneath the reach *c*. At their front ends said arms, being united in one, are pivoted to the cross-arm *e* in a lug, *d*, rigid to said cross-arm *e*. This cross-arm *e* at its extremities is affixed rigidly to the side sills or outer under side of the buggy-box *f*. The cross-arm *e* is bent down centrally so far that the middle part is below and free from the reach when the box is in its highest position on the undepressed springs *g g*, the box *f* being supported on the axles by springs or otherwise in some one of the various ways common in the manufacture of vehicles.

The construction of this device permits the buggy-box to be depressed squarely on the springs as far as the springs will permit, the front ends of the arms *a a* and the cross-arm *e* being merely carried down thereby, they being also below the reach, and there being nothing to impede such movement; but if by any means a weight is placed on one side of the box, as by a person getting into the buggy, which in buggies without this device would tip the box down on that side, this device supports the box on that side and holds the entire box level.

In the larger class of buggies and in buggies where for any reason the device should be particularly strong and stiff, I add a brace-rod, *h*, attached at its front end to the front end or sill of the box, and at its rear end to the cross-arm *e*, either rigidly or by a pivoted connection, as preferred. This rod, near its rear end, is made bifurcate, so as to straddle the reach and permit the vertical movement of the box by compression and expansion of the springs.

In the drawings the arms *a a* are shown as attached to the axle by means of plates *i i*, to which the arms are pivoted, which plates are affixed to the axle by means of clips or stirrups around the axle and bolted to the plates; but any other of the known methods of constructing a hinge-joint and attachment may be used instead.

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

The arms *a a*, pivoted to the axle *b*, the cross-arm *e*, affixed at its extremities to the box *f* and centrally pivoted to the front ends of arms *a a*, and the brace-rod *h*, affixed at its front end to the front end of the box *f* and at its rear end attached to the arm *e*, in combination with the axle *b* and box *f*, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

NICKOLAS WILLMES.

Witnesses:

C. T. BENEDICT,
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