

*D. H. Hall,  
Grain Cradle.*

No. 1211  
32215

Patented April 30 1861

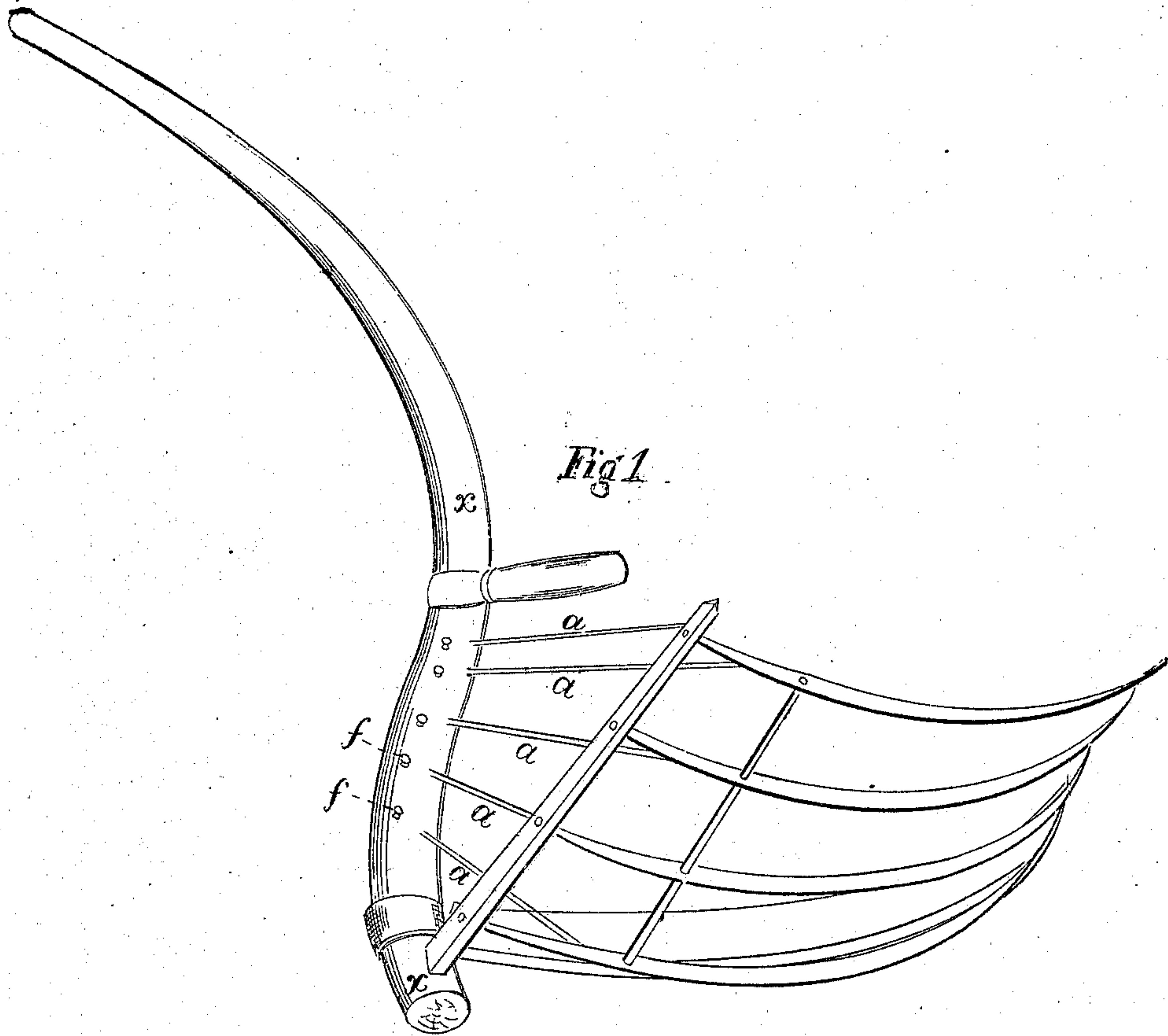


Fig. 2.

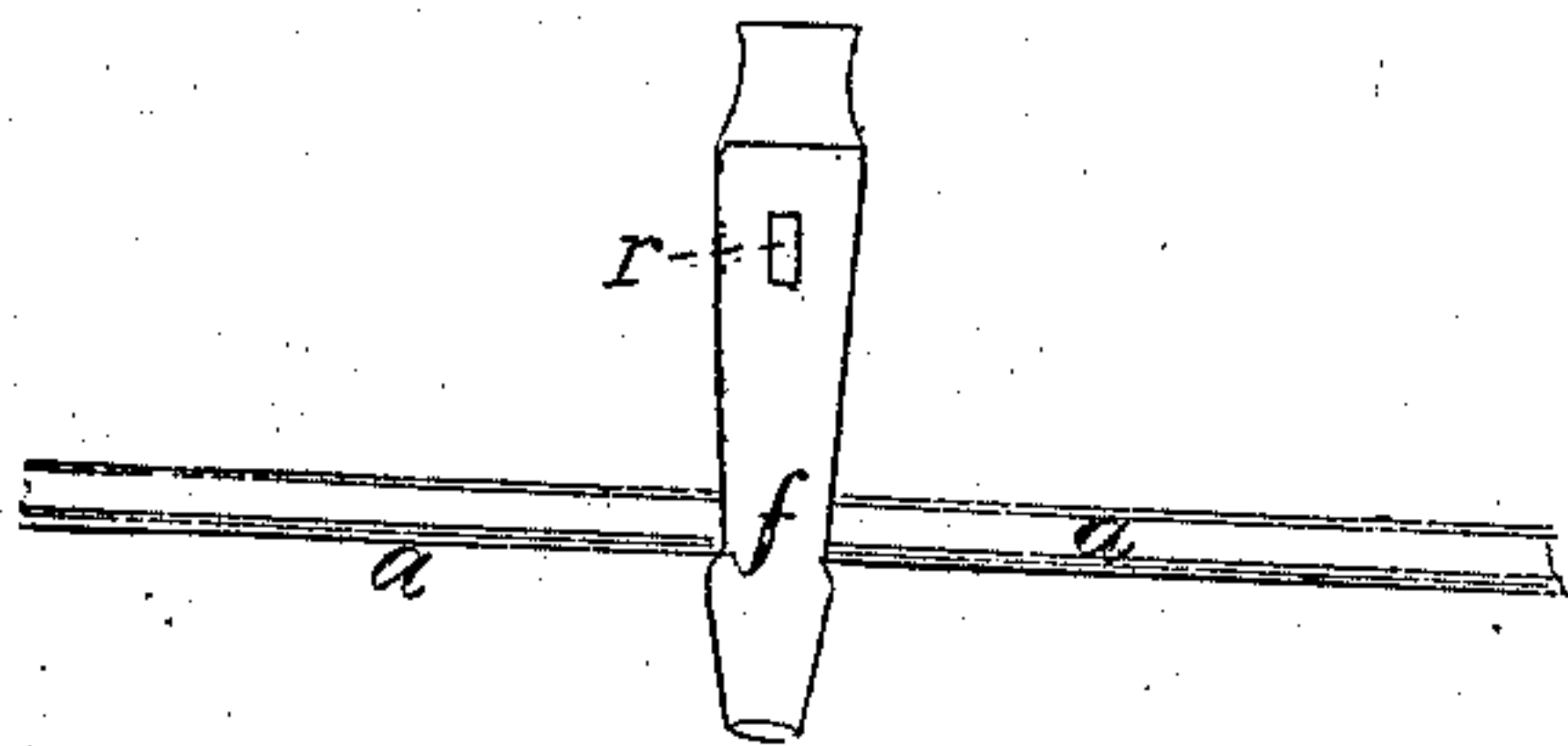


Fig. 3.

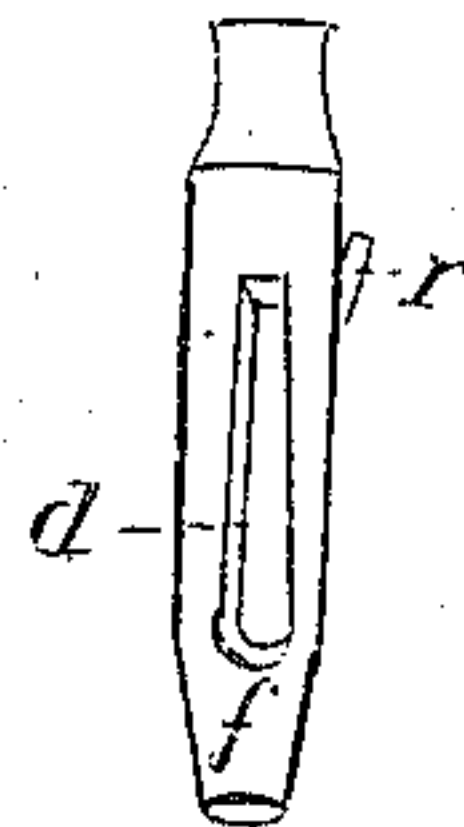
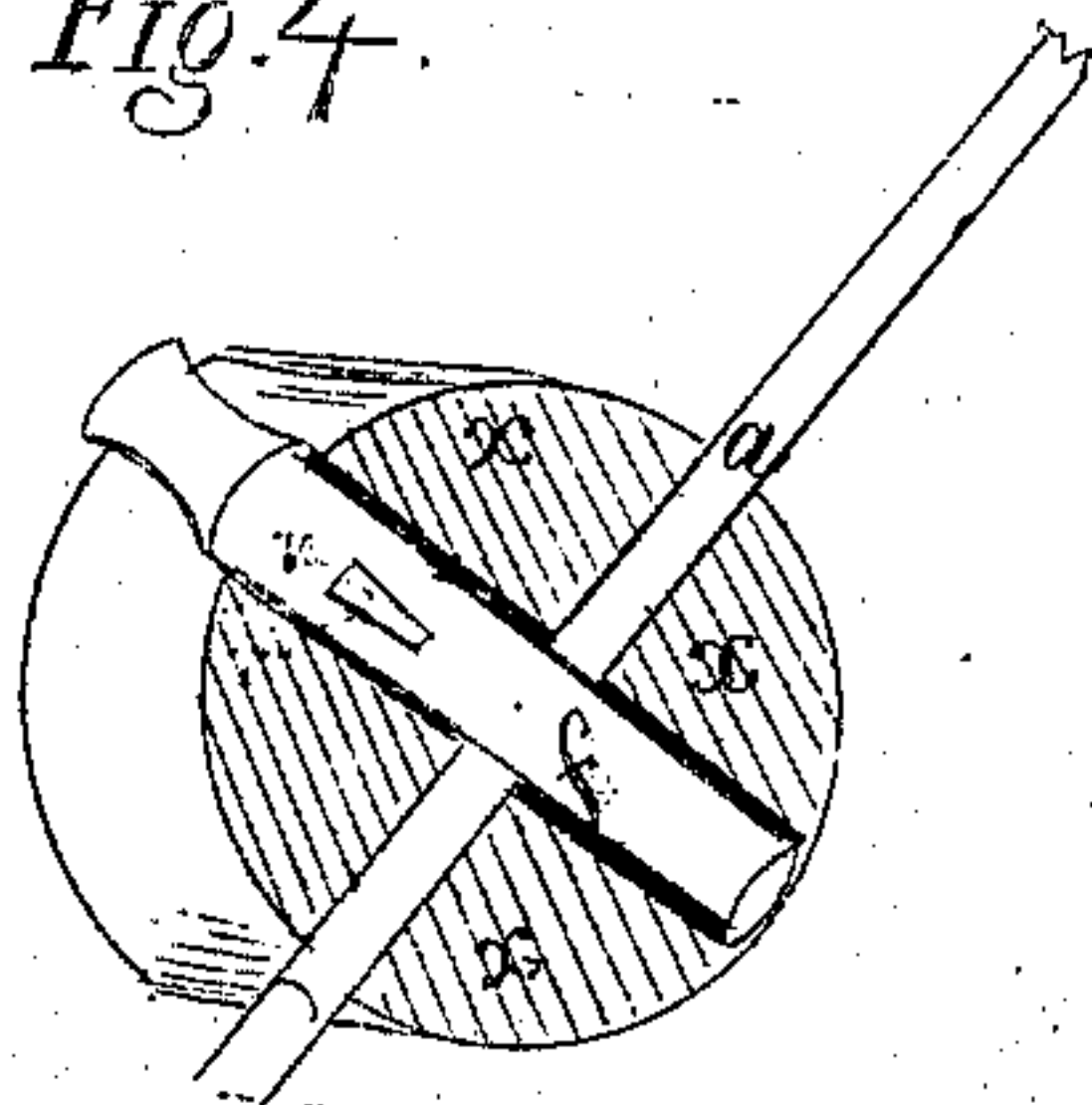


Fig. 4.



Attesting Witnesses  
Jesse H. Groat  
Alonzo Brooks

Daniel H. Hall

# UNITED STATES PATENT OFFICE.

DANIEL H. VIALL, OF SCHAGHTICOKE, NEW YORK.

## IMPROVEMENT IN GRAIN-CRADLES.

Specification forming part of Letters Patent No. 32,215, dated April 30, 1861.

*To all whom it may concern:*

Be it known that I, DANIEL H. VIALL, of Schaghticoke, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in the Grain-Cradle or Machine for Reaping Wheat or other Grain; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, marked "amended drawings," and the letters of reference marked thereon, making a part of this specification, in which—

Figure I is a perspective view of the grain-cradle aforesaid, to which my invention is intended to apply; and Figs. II and III, perspective views of a bolt with a wedge-shaped slot in it, with which to fasten and hold the finger-braces into the snaths of the said grain-cradle. Fig. IV represents a section of the snath of the said grain-cradle, with finger-brace and the slotted bolt aforesaid, and shows the connection of the fastening with said snath.

The said drawings may be described as follows:

*a* represents the said finger-brace.

*x* represents the said snath in Fig. I, and in Fig. IV it represents a section of the snath aforesaid.

*f* represents the slotted bolt, which is the improvement claimed, and in Figs. II and III and IV is drawn from nearly actual size.

*d* indicates an aperture or slot in the said bolt *f*, between the sides of which the said finger-brace *a* is held and fastened, as hereinafter described.

*r* represents a teat on the side of the said bolt *f*, which aids in holding the said bolt *f* firmly in the said snath *x*. The slotted bolt *f* is constructed of malleable iron or other metal, and its operation is as follows: Two holes are bored through the snath *x* at right angles with and crossing each other, the one of just sufficient size to admit of the entrance of the bolt *f*, and the other of sufficient size to admit of the entrance of the brace *a*. The bolt *f* is then made to enter the said aperture

in the said swath, as shown in Fig. IV, just far enough for the lowest and widest opening of the said slot *d* to come in range with the brace-hole aforesaid. The finger-brace *a* is then made to enter the aperture made, as aforesaid, for it, and caused to pass through the snath, as shown in Fig. IV, and in so passing it will also pass through the slot *d* at its lowest and widest opening, which is made of only sufficient size to admit of the entrance of the said finger-brace *a*, as aforesaid. A blow with a hammer upon the head or upper end of the said bolt *f* drives the said wedge farther into the snath *x*. The sides of the slot *d* descend and press upon the opposite sides of the finger-brace *a*, and the said finger-brace *a* is then firmly held and fastened, the sides of the said slot *d* being firmly fixed upon two opposite sides of the said finger-brace *a*. A blow with a hammer upon the lower or pointed end of the said bolt will instantly loosen the said finger-brace again.

I am aware that a single wedge has been used for the purpose of tightening the braces of a grain-cradle; but there is an important practical difference between that device and my own. Such a wedge acts unequally upon the brace and often bends it laterally or forces it into the wood of the snath, so as to make its extraction difficult. I lay no claim to any such device.

My invention is not strictly a wedge, but rather a bolt with a wedge-shaped slot in it, the sides of the slot pressing equally against the brace and holding it firmly without any tendency to bend it laterally or any possibility of forcing it into the wood of the snath.

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

The slotted bolt *f*, constructed as described, in combination with the brace of a grain-cradle, for the purpose set forth.

DANIEL H. VIALL.

Witnesses:

ISAAC T. GRANT,  
ALONZO BROOKINS.