

(No Model.)

C. L. BARRETT.

ROAD CART.

No. 375,979.

Patented Jan. 3, 1888.

Fig. 1.

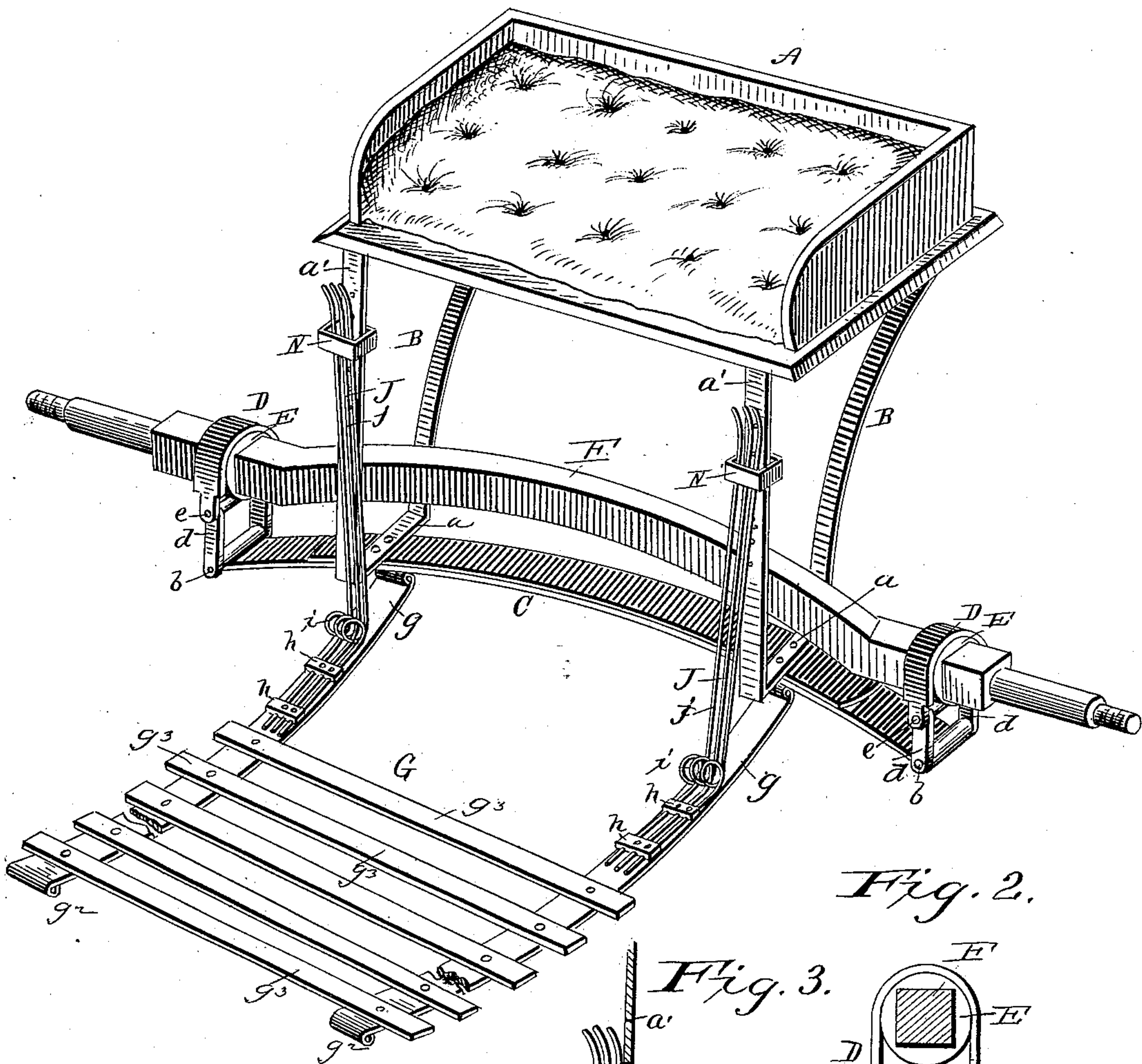


Fig. 2.

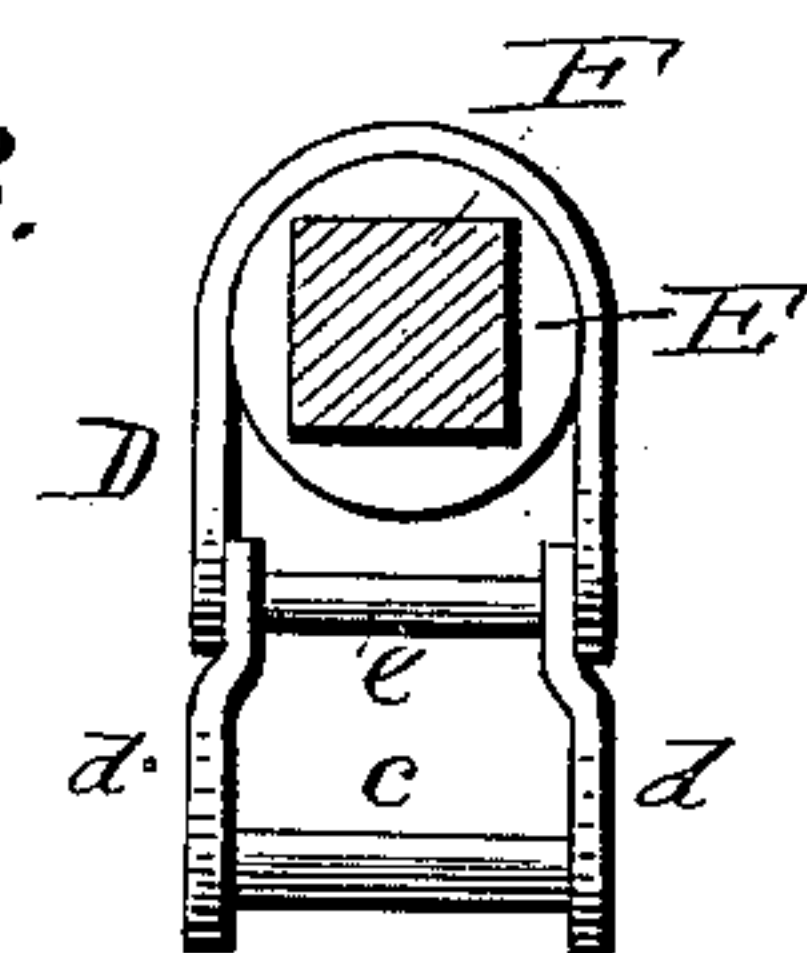
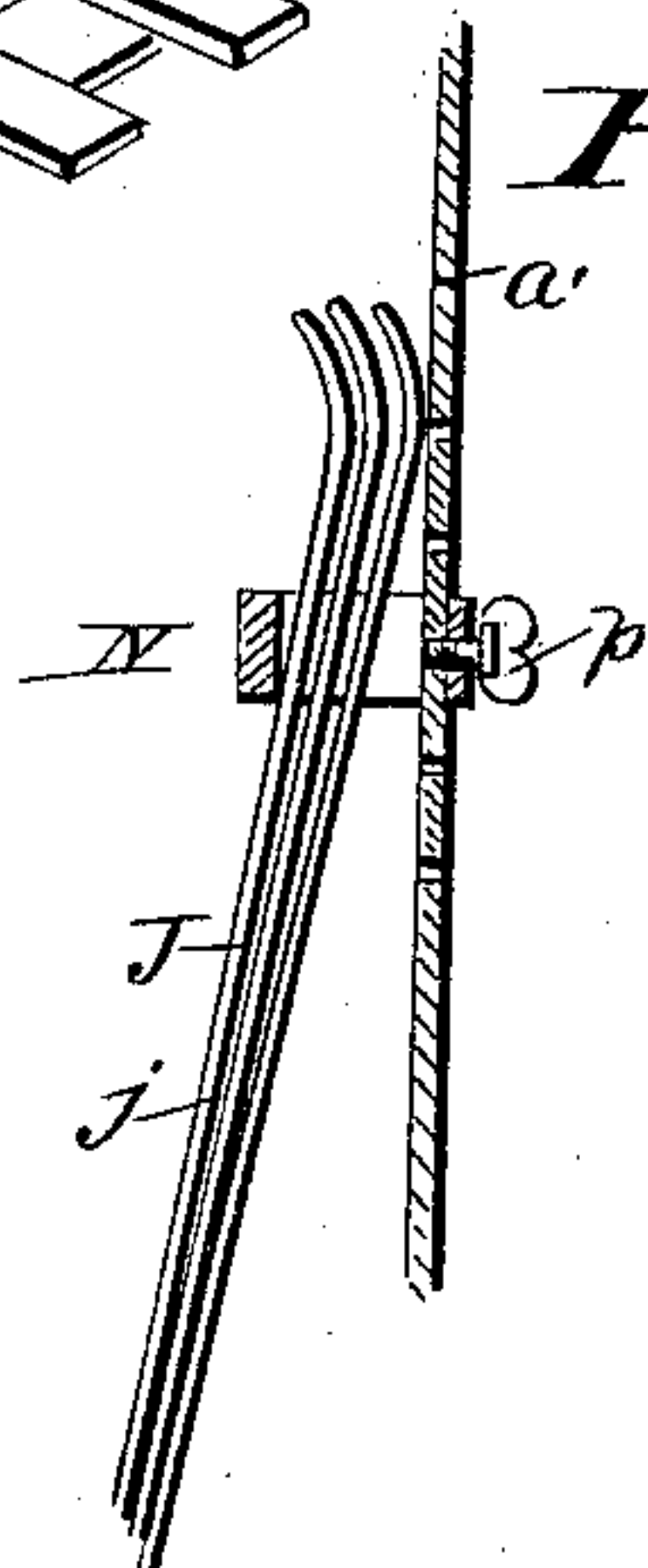


Fig. 3.



Witnesses:

C. D. Davis
Jno. S. Finch Jr.

Inventor:

Chas. L. Barrett
By *C. M. Alexander*

Attorney

UNITED STATES PATENT OFFICE.

CHARLES L. BARRETT, OF ALLEGAN, MICHIGAN.

ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 375,979, dated January 3, 1888.

Application filed September 12, 1887. Serial No. 249,456. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. BARRETT, a citizen of the United States, residing at Allegan, in the county of Allegan and State of Michigan, have invented certain new and useful Improvements in Road-Carts, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain novel improvements in two-wheel vehicles known as "road-carts;" and it consists in the devices which will be fully understood from the following description, taken in connection with the annexed drawings, in which—

Figure 1 is a perspective view illustrating my improvements, the thills and wheels being omitted. Fig. 2 is a vertical cross-section through the axle, showing the boxing at one end and the clip and spring-pintle. Fig. 3 is a sectional view in detail of the front portion of the seat standard, the adjustable loop, and the upper ends of a compound spring.

Referring to the drawings by letters, A designates the seat of the improved vehicle, which is mounted upon and rigidly secured to the upper ends of two-strap-metal standards, B B. The rear limbs of these standards are curved backwardly and the front limbs are straight and are integral with horizontal longitudinal portions *a a*. Thus it will be seen that each standard is of a U shape. The front vertical or straight portions, *a'*, of the standards are perforated, for a purpose hereinafter explained.

C designates a semi-elliptic spring arched upwardly and made of one or more leaves. To this spring the horizontal portions *a* of the seat-standards are rigidly riveted, as clearly shown in Fig. 1. The ends of the major portion of this spring C are suitably pivoted at *b b* to the pintles *c c* of links *d d*, which are pivoted to pintles *e e*, attached in a suitable manner to the ears of clips D D. These clips depend from cylindrical portions E E of the axle F, and these portions may or may not be formed integral with this axle.

The object of this part of my invention will be hereinafter explained.

The axle F is constructed with straight horizontal extensions and an intermediate arched portion, as shown in Fig. 1. It will thus be observed that the seat A is mounted on a

spring arranged below the axle, and that the spring is suspended from the axle in such a manner that while it is free to vibrate endwise to prevent lateral shocks and concussions, the axle itself is free to oscillate in its clips or suspenders, so as to conform to the motions of the animal without transmitting undue jar to the seat and rider.

G designates the foot-rest of the vehicle, which consists of narrow longitudinal strips *g* *g*, secured to the spring C at or near its front edge, and provided at their front ends with eyes *g'* *g'*, and connected together by foot-slats *g''*, rigidly secured to them.

J J are springs, which, as represented in Figs. 1 and 2, are composed of wires *j*, forming compound springs. These springs are rigidly secured to the strips *g g* of the foot-rest G by clips *h*, coiled at *i*, and extended upward and curved at their upper ends, as clearly shown in Figs. 1 and 3. Near the upper ends of the outwardly-extended arms of these springs J J they pass through buckles N N, which are provided with screw or pin fastenings *p*, (shown in Fig. 3,) that pass through the perforations in the upright portions of the seat-standards and allow the buckles to be adjusted higher or lower, as may be required, to regulate the tension of the springs J J and the said standards, and, acting through these standards, on their bearings upon the spring C, which latter is hung from the axle.

It will be observed by reference to Fig. 3 that when there is little or no pressure of the springs J against the standards only one wire of each spring will be brought into action. Now, as the pressure and motion increase, other wires are brought into play. By this arrangement of the spring-wires I compensate for resistance, as the springs J act with greater or less force, according as the resistance increases or diminishes.

In lieu of the compound springs it is obvious that flat springs may be substituted; but I prefer the compound springs with intermediate coils.

The front ends of the foot-rest may be attached in the usual or any suitable manner to the thills, and the rear ends of the thills may be attached in any suitable manner to the axle.

Now it will be seen from the above that I support the seat upon the spring C, depending

from the axle, which is allowed to freely oscillate; also, that the jerking movements of the animal are fully compensated for by the use of the springs G, the tension of which can be regulated by adjusting the buckles, as described.

Having thus fully described my invention, I claim—

1. The combination, in a road-cart, of a seat mounted upon standards secured to a spring suspended from an axle by clips, with a foot-rest hinged to said spring and provided with one or more springs attached to the seat-standards, substantially as described.

2. The combination of a hinged foot-rest, the springs thereof and buckles adjustably attached to the seat-standards and receiving freely through them the said springs, whereby the tension thereof can be adjusted, substantially as described.

3. The combination, in a road-cart, of a hinged foot-rest, tension springs therefor, and a device for regulating the tension of the springs, the latter being attached to seat-standards which are mounted upon springs suspended from an axle, substantially as described.

4. The combination of compound compensating springs composed of independent wires with the seat-standards and foot-rest of a vehicle, substantially as described.

5. The combination, in a two-wheeled vehicle, of the axle provided with a cylindrical portion near each of its ends, the spring C, hung beneath and in line with the axle, the clips pivotally connected to the ends of the

said spring C and embracing the cylindrical portions upon the axle, whereby the said spring is loosely hung to the said axle, the standards attached to the spring C, and the seat secured upon the standards, substantially as described.

6. In a two wheel vehicle, the combination of the upright spring-standards, a seat rigidly secured to the upper ends thereof, an arched spring, C, arranged beneath the axle and in line therewith and having the said spring-standards rigidly secured to it, spring-clips loosely applied on cylindrical portions of the axle, and links suspended from the clips and having the ends of the spring C pivotally connected to them, substantially as described.

7. The combination of the seat, the U-shaped spring-standards, the spring C, arranged beneath the axle and suspended from it by clips which will allow it to oscillate freely, a foot-rest hinged to spring C, and springs connecting the foot-rest to the said spring-standards, substantially as described.

8. The combination of a transverse spring, C, suspended by oscillating clips and laterally-vibrating links from cylindrical enlargements on the axle, and U-shaped spring-standards mounted on said spring, substantially as described.

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

CHARLES L. BARRETT.

Witnesses:

DAVID STOCKDALE,
WILLIAM C. WALTER.