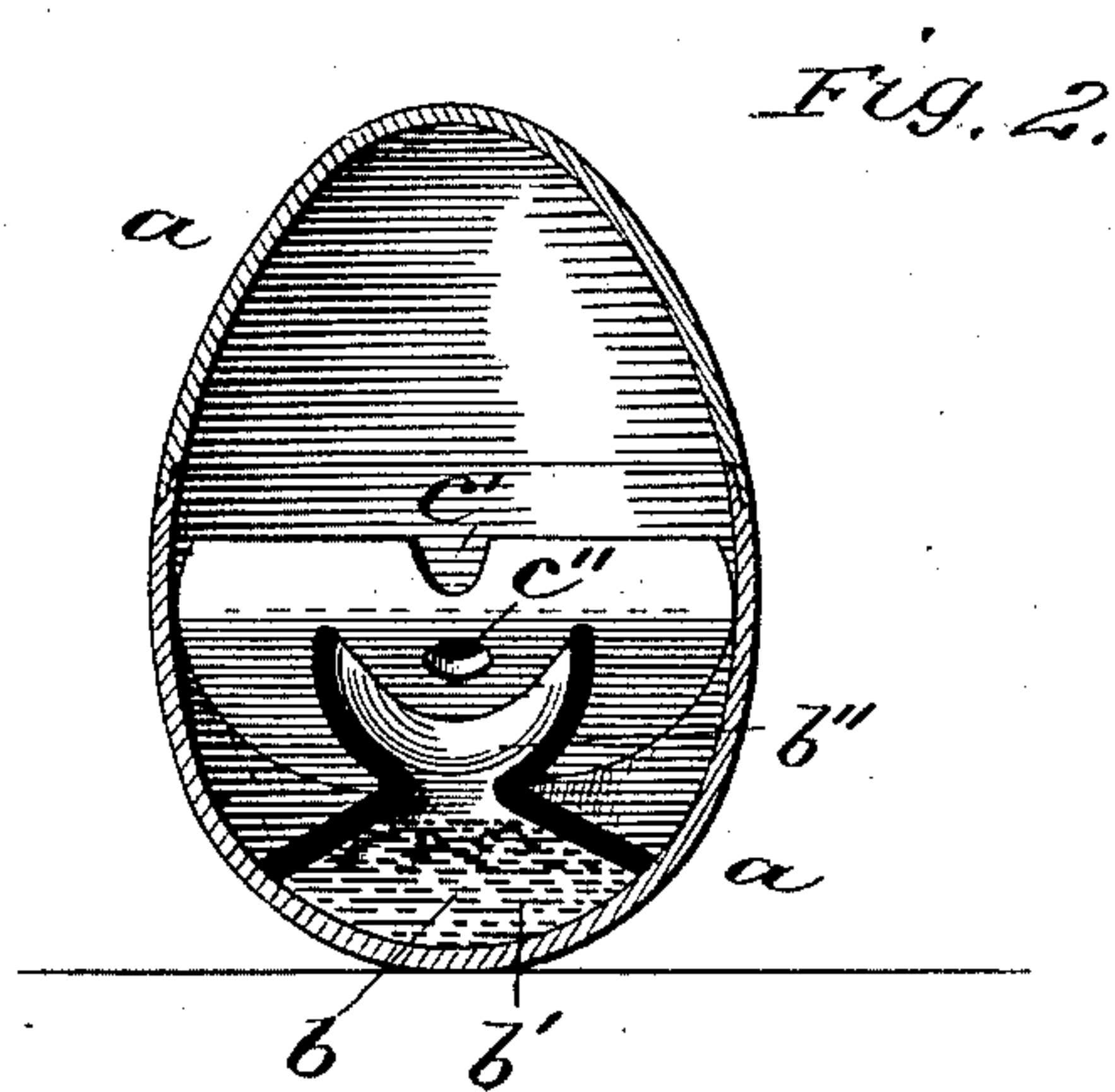
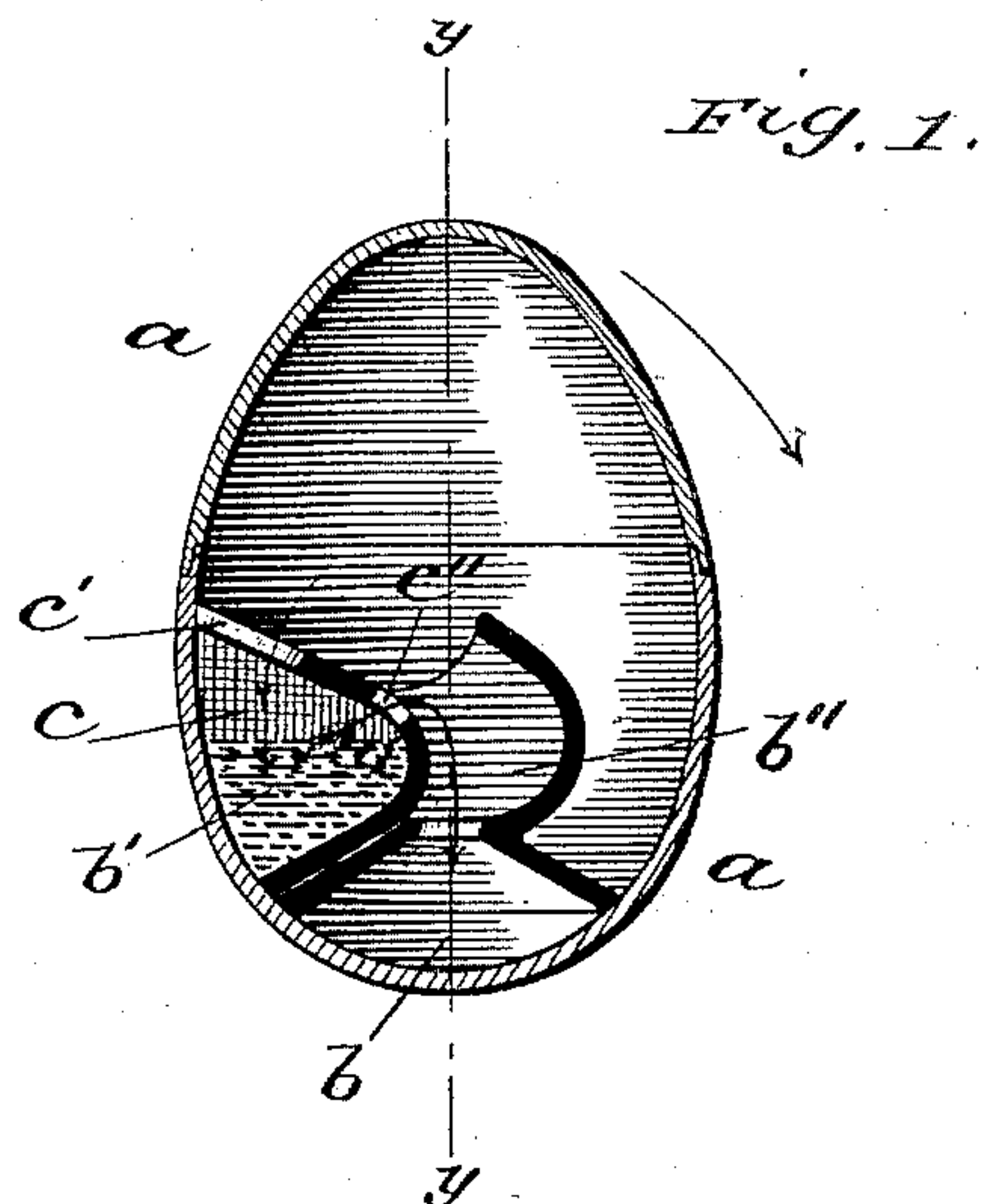


(No Model.)

J. F. HITCHCOCK & C. D. HAWLEY.  
PUZZLE.

No. 465,133.

Patented Dec. 15, 1891.



Witnesses:  
Wm. R. Davis.  
John M. Walsh

Inventors  
J. F. Hitchcock & C. D. Hawley  
By their Attorneys  
Alexander Davis.

# UNITED STATES PATENT OFFICE.

JAMES F. HITCHCOCK AND CHARLES D. HAWLEY, OF BERLIN, WISCONSIN.

## PUZZLE.

SPECIFICATION forming part of Letters Patent No. 465,133, dated December 15, 1891.

Application filed July 10, 1891. Serial No. 399,065. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES F. HITCHCOCK and CHARLES D. HAWLEY, citizens of the United States, residing at Berlin, in the county of Green Lake and State of Wisconsin, have invented certain new and useful Improvements in Egg-Puzzles, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a vertical transverse sectional view of the egg-shaped puzzle set upon end, and Fig. 2 a similar view taken on the line *y y* of Fig. 1.

The invention is designed to produce a puzzle consisting, essentially, of an egg-shaped shell or casing containing a quantity of mercury and having formed in its interior at its larger or base end a circular chamber having a small central opening, into which the mercury is capable of being directed only by adjusting the shell in certain positions, the object of such arrangement being to furnish an amusing toy puzzle, which is solved by discovering without opening the shell the manner in which the mercury is directed into the said chamber, the egg-shaped shell being maintained in an upright position on its larger end when the solver has succeeded in running the mercury into the chamber, as more fully hereinafter described. The shell *a* is egg-shaped and is preferably constructed of two sections secured together in a suitable manner. In this egg-shaped shell, preferably at its larger end, is formed by means of a conical partition or diaphragm a circular chamber *b*, the center of which corresponds with the longitudinal axis of the shell, the center or apex of the partition being provided with a small opening for the passage of the mercury *b'*. Across the interior of the shell at one side and above the same is formed a supplemental chamber *c*, whose upper and lower sides slope or converge inwardly and whose rounded inner edge terminates at or near the central opening in the lower chamber. The upper sloping side of the chamber *c* is provided adjacent to the shell with an ingress-opening *c'* and in the inner edge of the chamber midway between its ends is formed another opening

*c''*, through which the mercury passes on its way to the chamber *b* below. A hooded funnel or chamber *b''* connects the apex of the chamber *b* with the chamber *c*, so as to direct the mercury from the latter into the former when the shell is tilted in the proper direction. It will be observed that the only way to cause this shell, it being egg-shaped, to stand upon one of its ends is to direct the mercury into and confine it in the chamber *b*, which it, preferably, nearly fills. The mercury is directed into the cavity *b* by first adjusting the shell so that it may run into the chamber *c* through the opening *c'*, from whence it may be discharged into the hooded funnel through the opening *c''* by simply tilting the shell in the proper position, as is evident from the drawings.

This device will form a very amusing and interesting toy puzzle.

We have described and claimed mercury as the balancing medium, as that material is preferable; but it is evident that any other equivalent substance may be substituted without departing from our invention. For instance, shot or balls may be employed in lieu of the mercury.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

A puzzle consisting of an egg-shaped shell containing a quantity of mercury, a chamber formed in one end of the shell and having an opening, a supplemental chamber formed on the interior of the shell above the end chamber, this supplemental chamber being provided with an inlet and an outlet, and a conduit for conveying the mercury from the outlet of the supplemental chamber to the end chamber, substantially as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES F. HITCHCOCK.  
CHARLES D. HAWLEY.

Witnesses:

A. L. TUCKER,  
H. N. HOWE.