

A. McBURTH.  
Shell

No. 13,469.

Patented Aug 21, 1855.

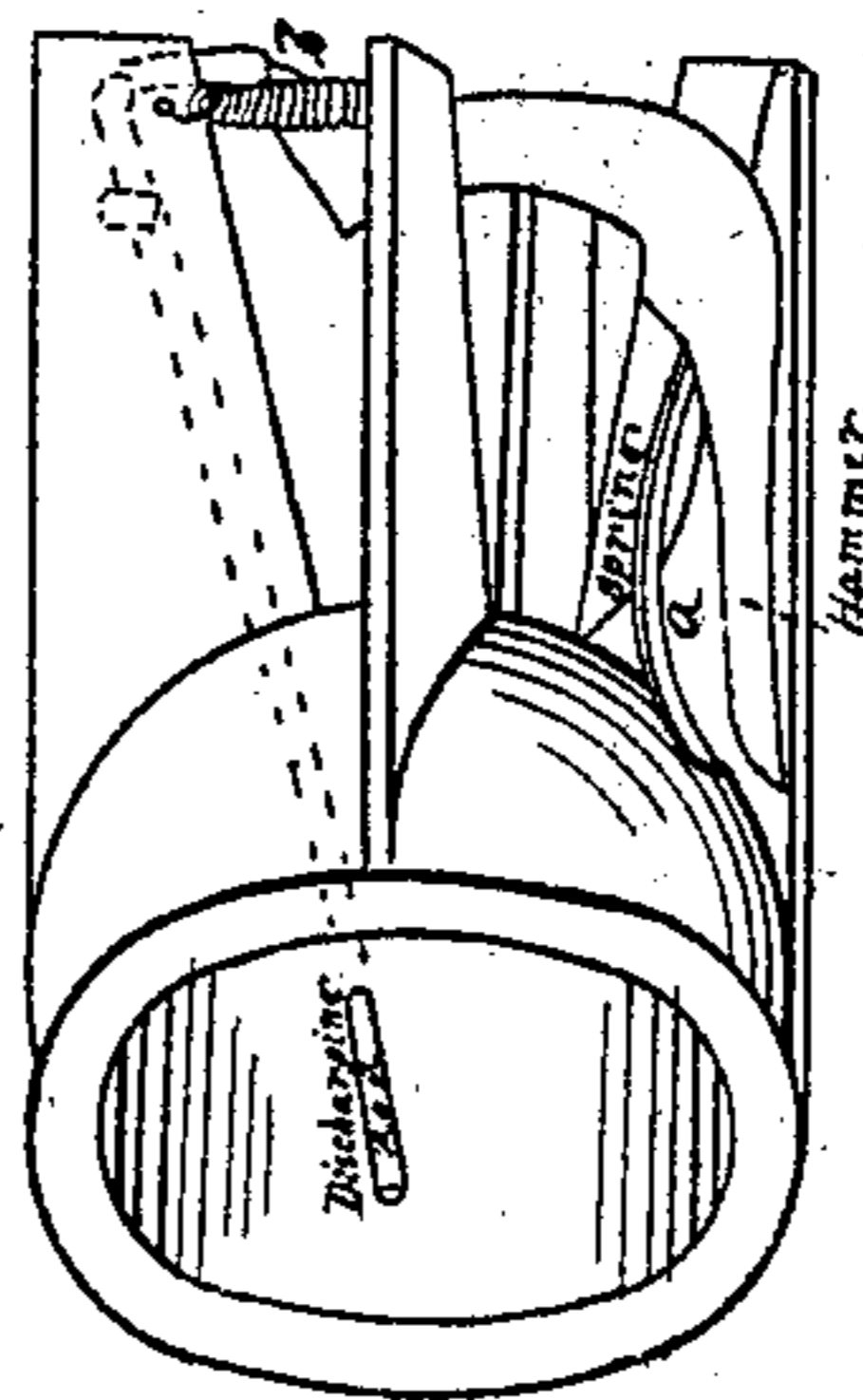
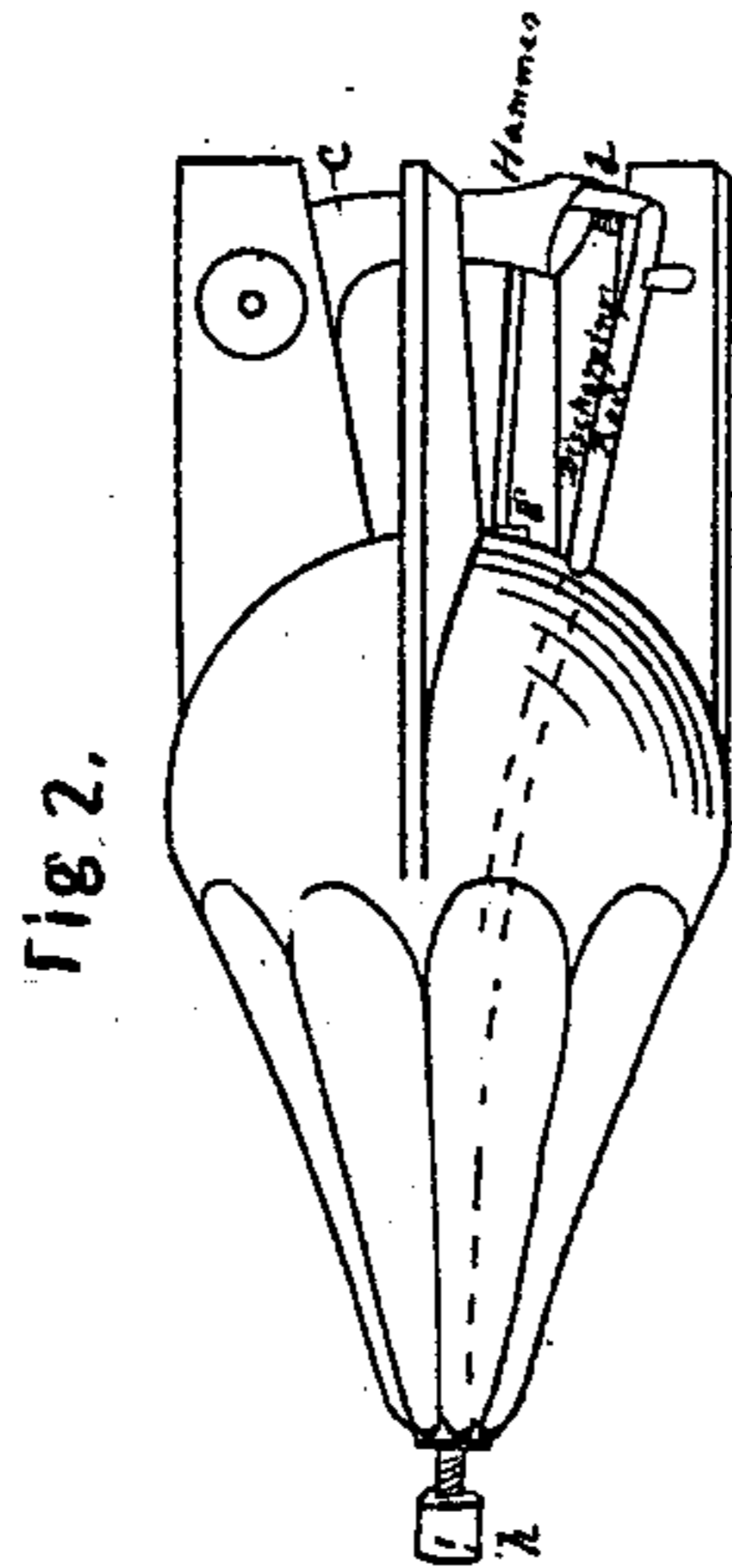
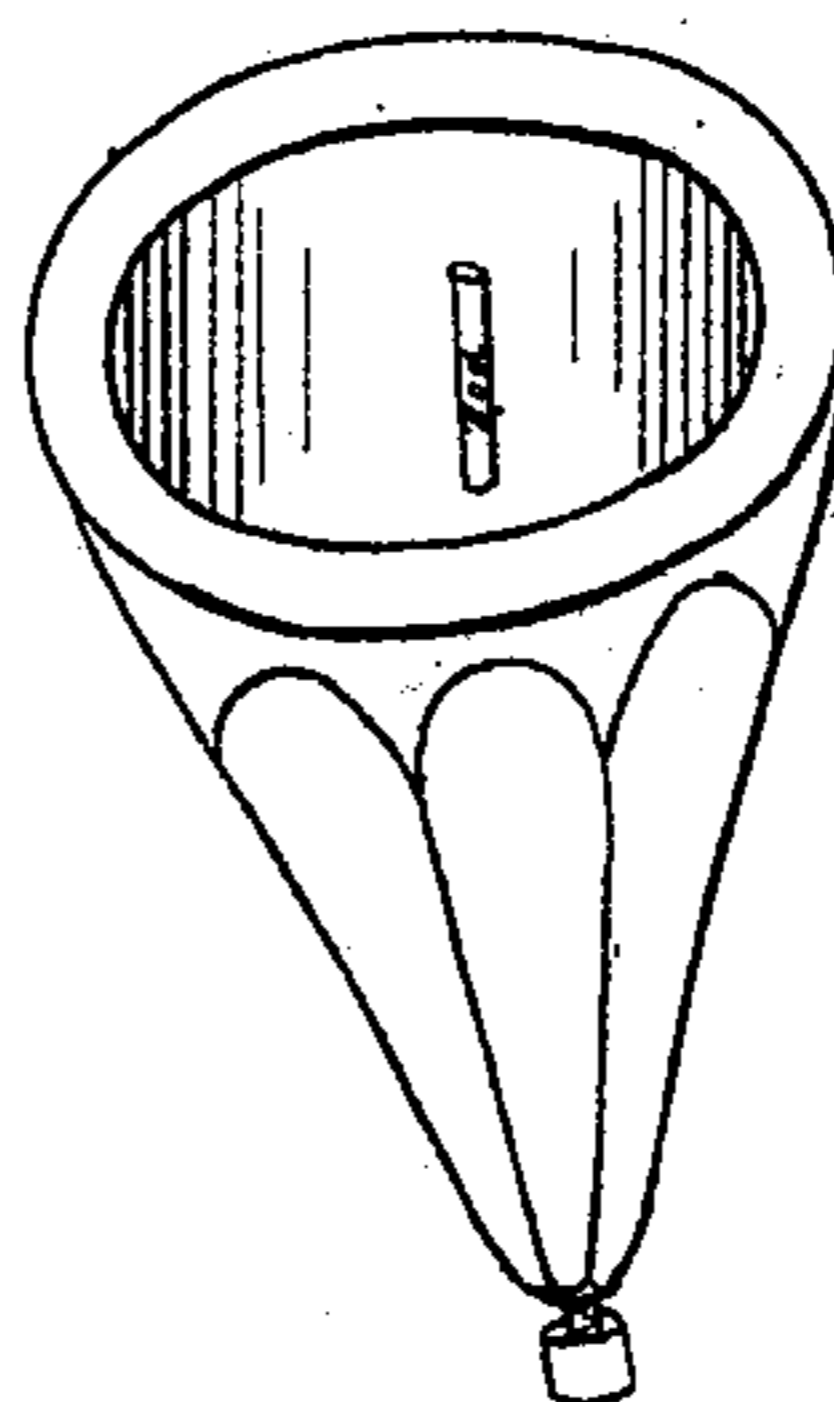
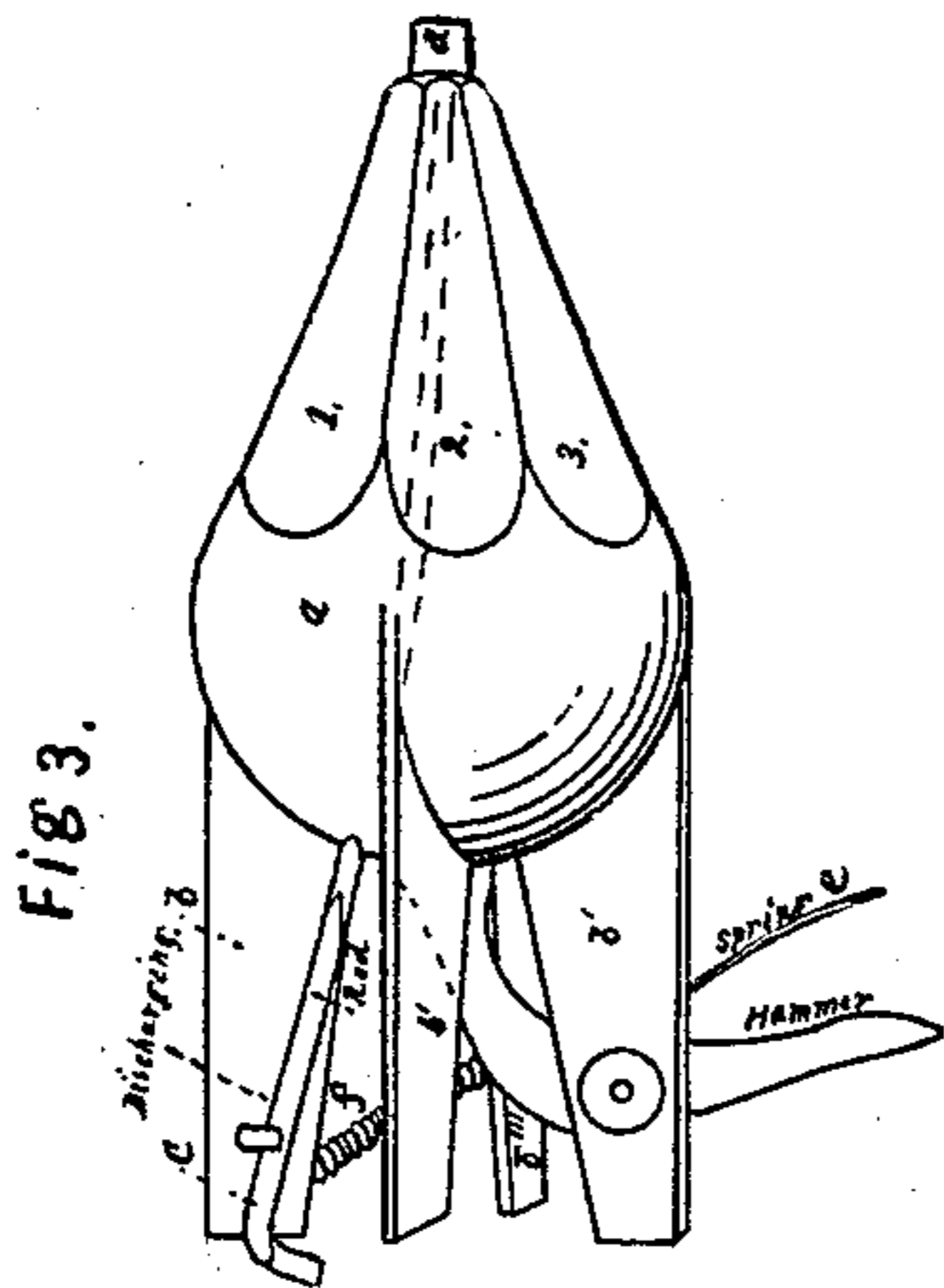


Fig 1.



Witnesses:  
A. J. M. Elmer  
James P. M. Lane

Inventor:  
Augustus M. Burth

# UNITED STATES PATENT OFFICE.

AUGUSTUS MCBURTH, OF ELIZABETH, NEW JERSEY.

## IMPROVEMENT IN PERCUSSION-PROJECTILES.

Specification forming part of Letters Patent No. 13,469, dated August 21, 1855.

*To all whom it may concern:*

Be it known that I, AUGUSTUS MCBURTH, of the city of Elizabeth, in the county of Essex and State of New Jersey, have invented a new and useful improvement in the construction of bomb-shells (or missiles) to be used as implements of war; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, lettered to correspond with and made a part of this specification.

In order to enable others to use my invention, I will go on to describe it.

My invention consists in the construction of a bomb-shell (or missile) that contains all the properties of the cannon-ball, together with a more destructive and certain effect than the bomb-shell.

Figure 1 is a transverse sectional drawing, showing the interior of the shell or fluted cone-shaped missile, showing the discharging-rod, which passes in a longitudinal course through the shell, as shown by dotted lines. It also shows the flat hammer-spring *a* and spiral spring *b*.

Fig. 2 is a side view, showing the discharging-rod while holding the hammer *e* previous to the point *h* striking the ship or any other substance. Letter *g* represents the percussion-cap ready to be discharged by the hammer *e* when set free by the collision of the point of the discharging-rod *h* with a ship or any other hard substance. *d* is a spiral spring that prevents the hammer from striking the cap (or other fulminating substances which are used to explode gunpowder) previous to the point of the rod coming in contact with the ship, &c.

Fig. 3 is also a side view, showing the position of the hammer after having discharged the cap. Letter *a* is the round portion or body of the missile. *b b' b'' b'''* are the arms that act as rudders, and have a great tendency to prevent the ball changing its course after leaving the mouth of the cannon.

Figures 1 2 3 represent the flutes having sharp edges to enable them to pass more readily through the air.

From the peculiar form or construction of the point of my missile or ball, and it being fluted, it has a greater tendency to pass through the air with less resistance and greater impetus than any other ball or bomb-shell ever used.

I am aware that bomb-shells have been constructed after various plans, some having spiral projections or arms in order to give the ball or missile a rotatory motion. Others have pointed the ball, having a rod to pass lengthwise into it (the ball or shell) through the point, and having a percussion-cap upon the inner end of this rod, so that when the point strikes the ship (or other body) it drives the rod containing the cap (upon its inner end) against the inner surface of the shell, and thus explodes the missile. Neither of these is either practicable or useful. Therefore

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The improvement in bomb-shells or missiles having four arms, *b b' b'' b'''*, and eight flutes with sharp edges, 1 2 3, Fig. 3, in the manner and for the purposes substantially as described.

2. A rod, *h*, Fig. 2, to pass through the shell in a longitudinal course, for the purpose as above set forth.

3. A hammer with a flat spring attached, together with a spiral spring, *d*, as substantially shown and described in the foregoing specification.

In testimony whereof I have hereunto subscribed my name in the presence of two witnesses.

AUGUSTUS MCBURTH.

Witnesses:

APOLLOS M. ELMER,  
JAMES P. MCLEAN.