

M. HOWLES.  
Dampers.

No. 152,800.

Patented July 7, 1874.

Fig: 1.

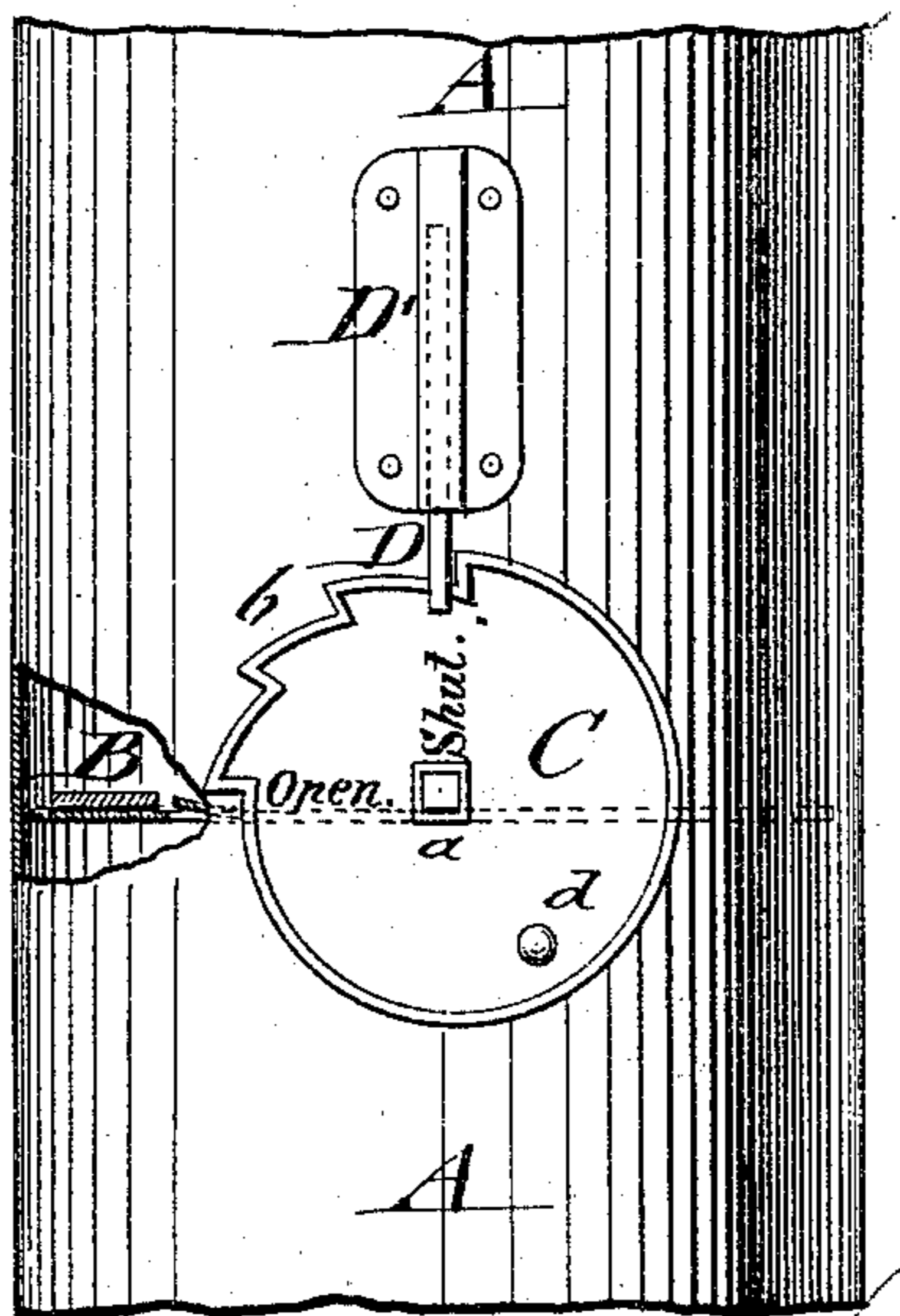
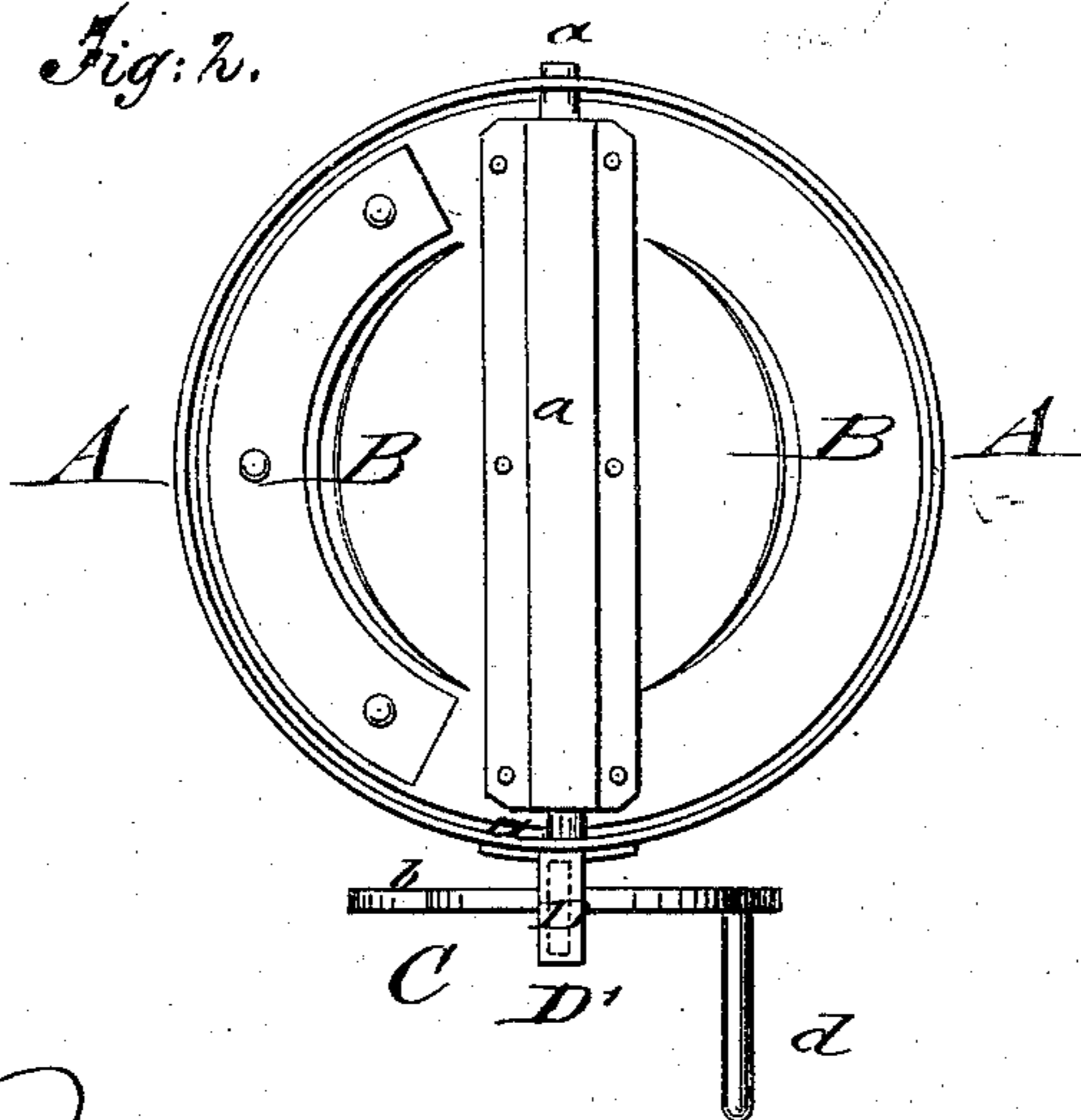


Fig: 2.



WITNESSES:

Chas. Nida  
Edgworth

INVENTOR:

M. Howles

BY

Wm. H. H. H.

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

MATTHEW HOWLES, OF HAMILTON, CANADA.

## IMPROVEMENT IN DAMPERS.

Specification forming part of Letters Patent No. **152,800**, dated July 7, 1874; application filed May 16, 1874.

*To all whom it may concern:*

Be it known that I, MATTHEW HOWLES, of Hamilton, Province of Ontario, Canada, have invented a new and Improved Stove-Pipe Damper, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation, partly in section, of my improved adjustable stove-pipe damper; and Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

My invention relates to an adjustable damper for regulating, readily and conveniently, the draft in stove and furnace pipes, which also indicates instantly the position of the damper, and retains the same securely in the required position.

My invention consists of a damper which is weighted at one side, and provided, at the outside of the pipe, with a notched disk keyed to the projecting end of the shaft. A sliding bar is guided in a case above the disk, and engages the notches of the same, so that the damper is retained securely in any desired position thereby.

In the drawing, A represents a stove, furnace, or other pipe, of the usual construction and material; and B, the damper, pivoted to the same by the projecting shaft ends *a*. The damper B is suitably weighted at one side of the shaft, so as to be carried thereby into vertical direction for the passage of the draft. A

disk, C, is keyed to one end of the shaft *a*, and provided, along one quadrant of its circumference, with any desired number of notches *b*, as indicated in Fig. 1. A button or pin, *d*, of disk C, serves to turn the same, and thereby the damper, readily into any required position under any angle in pipe A. The damper B is locked by a drop rod or piece, D, which slides in a case or sleeve, D', attached to the stove-pipe above disk C.

The weighted part of the damper B presses the notch of the disk firmly against the drop-piece D, and secures thereby the damper firmly in any position, so as to regulate the draft as required.

By indicating the words "open" and "shut" on the disk, near the outer notches of the quadrant, the damper may be set without the least difficulty in an instant, and the position of the same indicated at a glance by the relative position of the notches to the locking drop-piece.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The adjustable damper B, provided with perpendicular key, dropping, by its own gravity, into position whenever the disk-handle is moved, as and for the purpose specified.

MATTHEW HOWLES.

Witnesses:

THOMAS C. CROSS,  
N. H. BUCHNER.