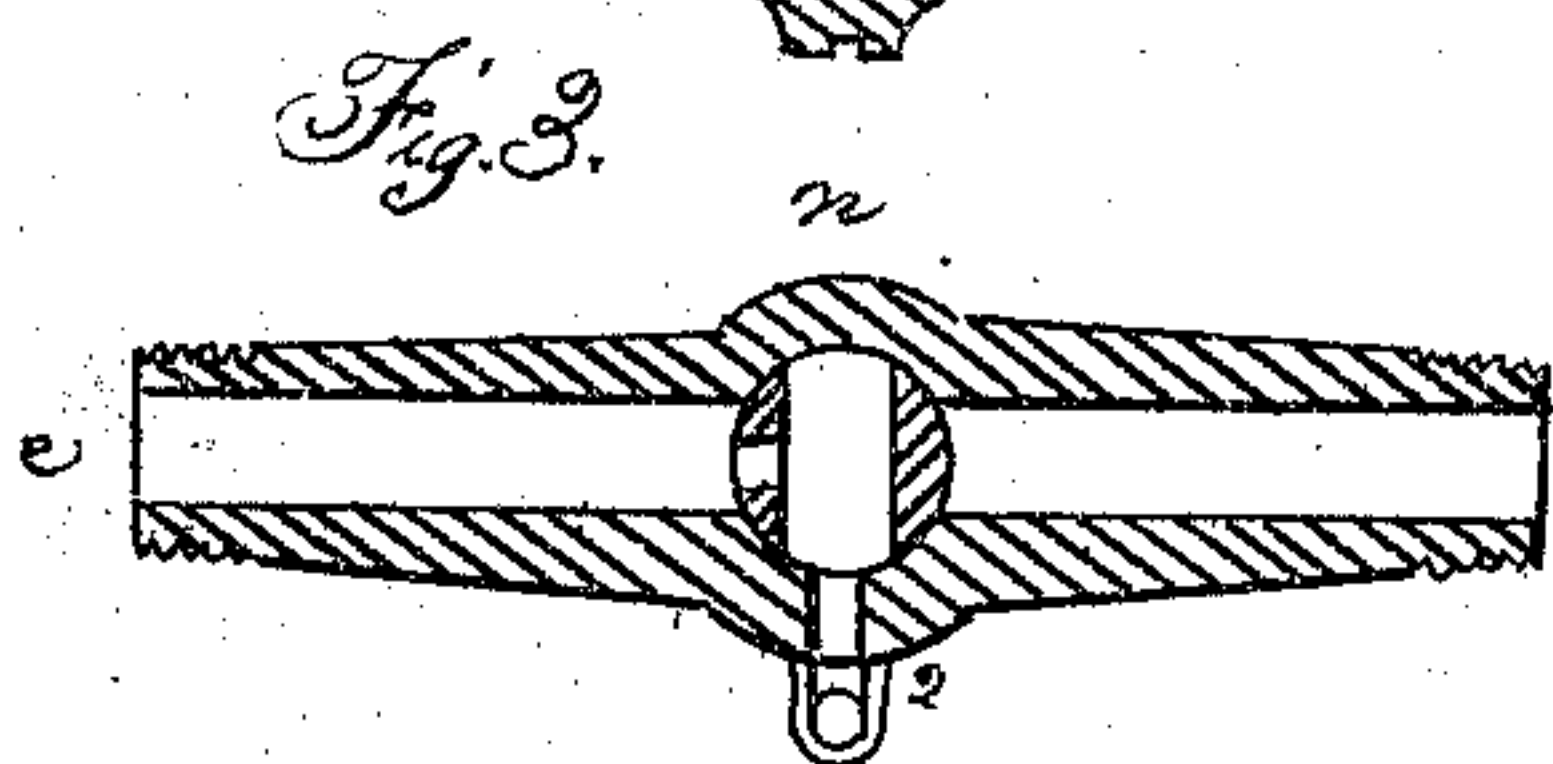
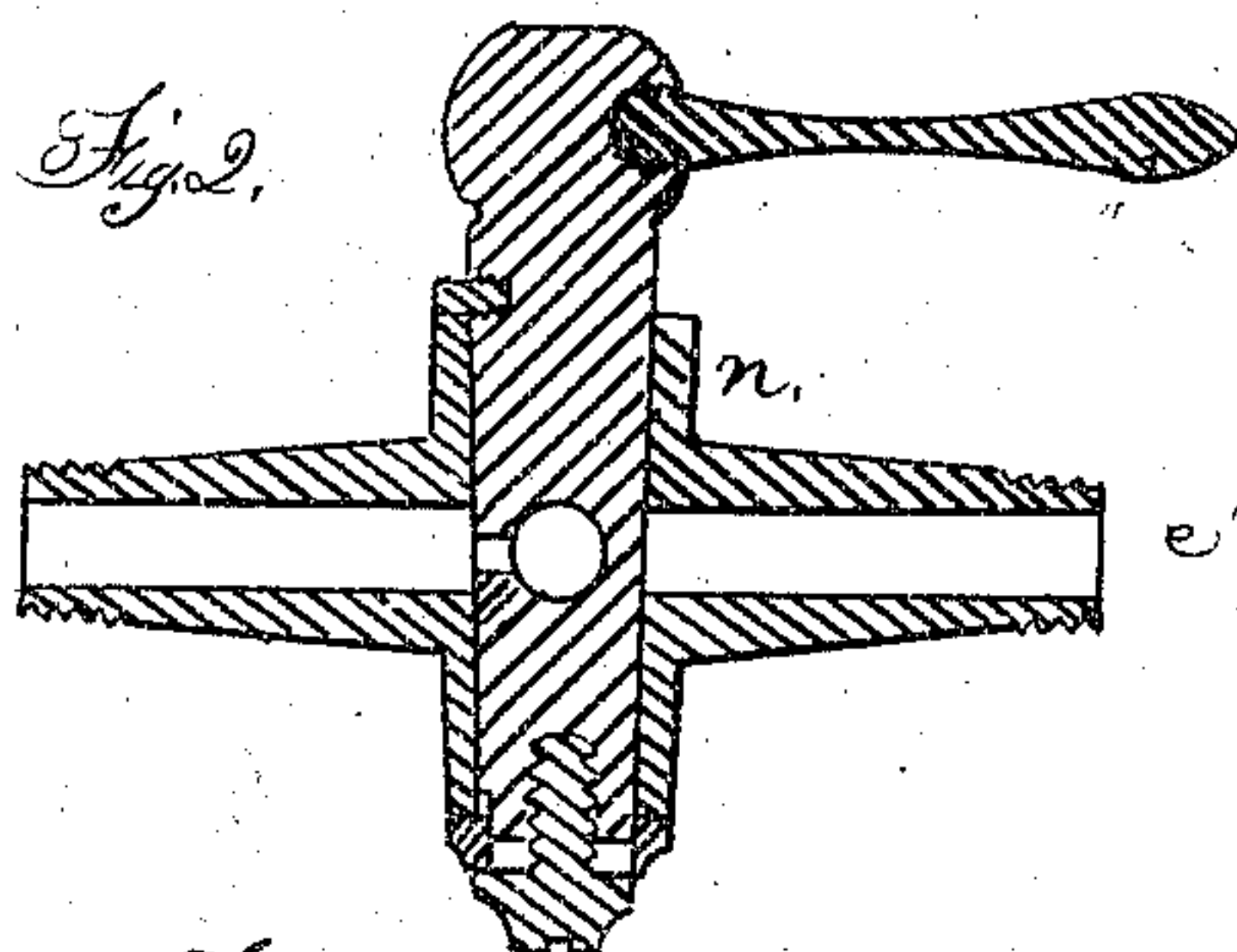
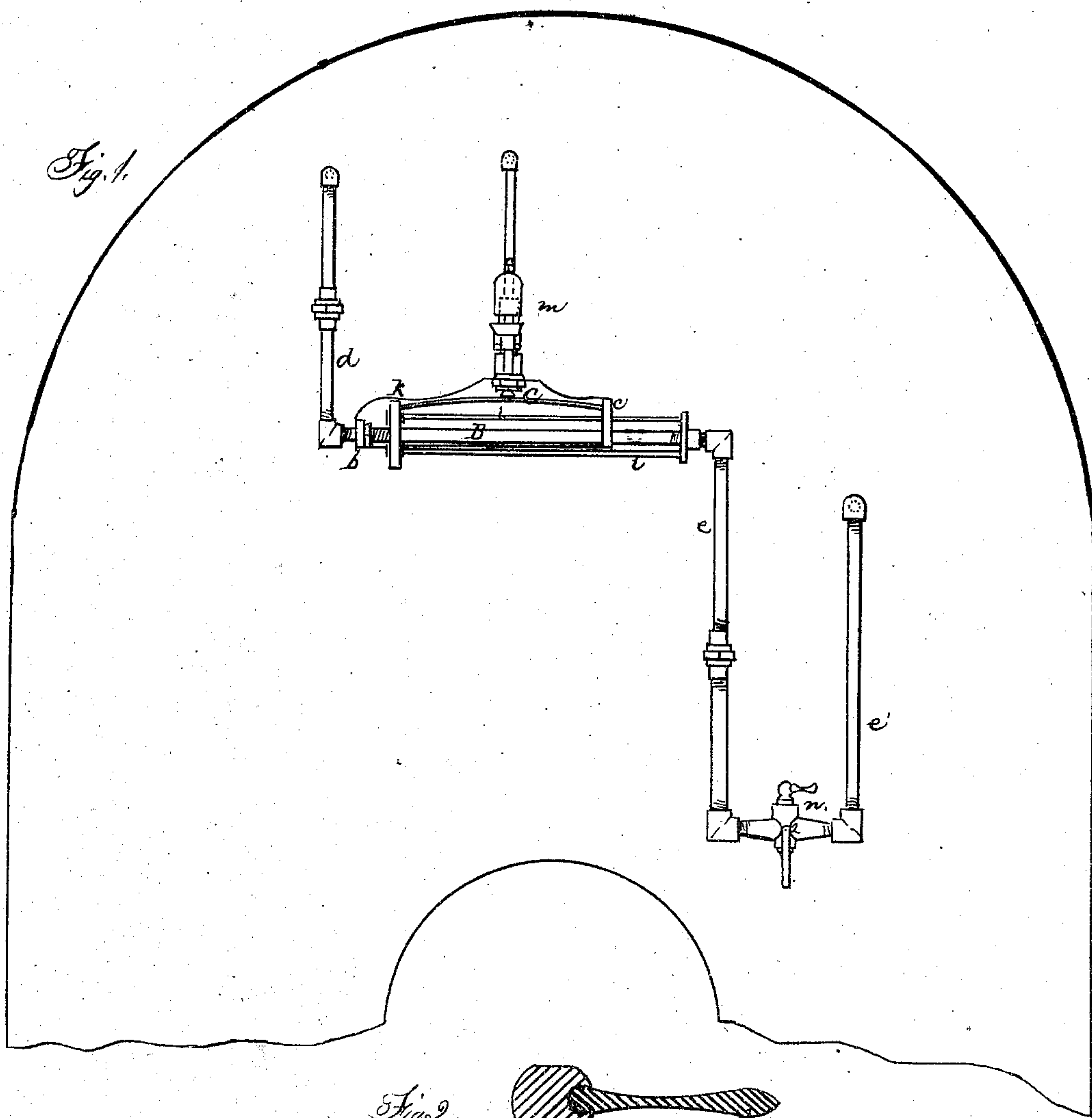


T. C. Banks.

Boiler-Alarm Gauge.

N^o 75833

Patented Mar. 24, 1868



Witnesses
Chas. H. Smith
Geo. B. Vester

Inventor
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Per L. M. Perrell
Atty

United States Patent Office.

THADDEUS C. BANKS, OF WALLINGFORD, CONNECTICUT.

Letters Patent No. 75,833, dated March 24, 1868.

IMPROVEMENT IN BOILER-ALARM GAUGES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THADDEUS C. BANKS, of Wallingford, in the county of New Haven, and State of Connecticut, have invented and made a certain new and useful Improvement in Boiler-Alarm Gauges; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is an elevation of said gauge as applied to a boiler.

Figure 2 is a vertical section; and

Figure 3 is a horizontal section of the cock employed to free the siphon-pipe from sediment.

Similar marks of reference denote the same parts.

A boiler-indicator has heretofore been made with a horizontal tube, B, attached firmly, at *b*, to the boiler, and connected at one end by a pipe, *d*, to the boiler above the water-line, and by a pipe from *e* to the boiler below the water-line, so that when the water in the boiler sunk below the tube B, the steam passing into the same should expand the tube B, and act upon the rods *i* and cross-head *k*, to buckle up a spring, C, between the cross-head *k* and a fixed head, *c*, and operate on a rod to a whistle or other alarm, *m*. In this alarm it became necessary that the pipes, near their points of attachment to the boilers, should be provided with cocks, so as to shut off the same in case of injury to the glass gauge, and also to allow for blowing through and cleaning out the pipes. This involved considerable expense, and a risk that the attendant might leave the cocks, or some of them, closed, and thereby the apparatus become useless.

The nature of my said invention consists in combining, with the expansion-tube and alarm aforesaid, an inverted siphon-pipe and a three-way cock, that can be used for blowing out sediment from either side of the apparatus; and it is so constructed that the blowing off will continue until the circulation is opened, so that either the apparatus is in full working condition or the sediment is being blown off. Thereby there is only one cock to be regulated, and no possibility of the apparatus being left in an inoperative condition.

The cock *n* is made with a side-discharge, 2, so that when the plug is turned into the position shown in fig. 3, the sediment can be blown out of the pipes B and *e*, through the discharge at 2, into any suitable waste-pipe. When the plug is rotated half a turn, the pipe *e* will be closed, and sediment be blown out from the leg *e'* of the siphon. At any intermediate point the blowing off will continue until the main channel of the plug opens the communication between the two pipes *e* and *e'*, to bring the apparatus fully into operative condition.

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

The inverted siphon and three-way cock, in combination with the expansion-tube B and an alarm, substantially as and for the purposes set forth.

In witness whereof, I have hereunto set my signature, this fifth day of November, A. D. 1867.

T. C. BANKS.

Witnesses:

CHAS. H. SMITH,
GEO. D. WALKER.