N. J. ENGLER.
Heating Drum.

No. 212,913 Patented Mar. 4, 1879.

Fig. 1.

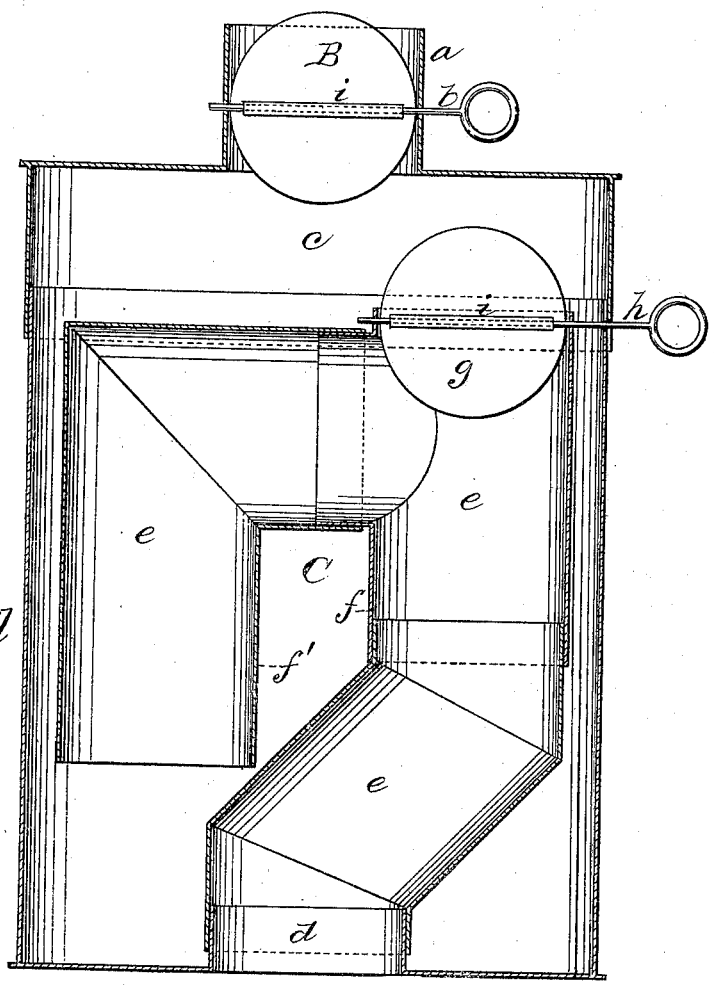
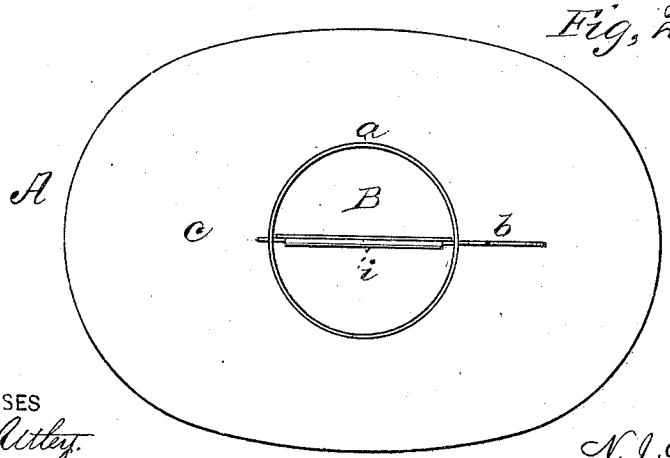


Fig. 2.



WITNESSES
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NICHOLAS J. ENGLER, OF CHARLOTTE, IOWA.

IMPROVEMENT IN HEATING-DRUMS.

Specification forming part of Letters Patent No. **212,913**, dated March 4, 1879; application filed January 11, 1879.

To all whom it may concern:

Be it known that I, NICHOLAS J. ENGLER, of Charlotte, in the county of Clinton and State of Iowa, have invented a new and valuable Improvement in Heating-Drums; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical central section of my improved heating-drum, and Fig. 2 is a top view thereof.

This invention has relation to improvements in heating-drums for stoves; and the nature of the invention consists in the combination, with a drum having at its lower end an inside neck, and at its upper end a removable top provided with a neck, and a damper seated in said neck, of a continuous flue composed of sections forming an ascending and descending branch, the former provided with a damper, as hereinafter shown and described.

In the annexed drawings, the letter A designates an ordinary sheet-metal drum, having at its upper end a short neck, *a*, upon which the continuation of the stove-pipe is slip-jointed, in the usual way. This neck is provided with a damper, B, arranged with an operating-rod, *b*, in the customary manner. The top *c* of the drum is removable from its body for the purpose of cleaning out its interior. At the bottom of this drum, on its inside, is a second neck, *d*, into which the pipe leading to the stove discharges. Within the drum is a continuous flue, C, slip-jointed upon the neck *d*, and composed of two or more sections, *e e e*, slip-jointed together, and forming an ascending branch, *f*, and a descending branch, *f'*. This extends nearly to the bottom of the drum and is open-ended. The upper end of the descending branch is open and provided with a damper, *g*, operated to close said branch by means of an operating-rod, *h*, upon which it is removably secured. The dampers have usually a diametrical sleeve, *i*, upon one side, in which their operating-rods fit snugly. By drawing out these rods the dampers may be removed. The flue C, being made up of slip-jointed sections, may be taken apart and readily cleaned. The products of combustion pass into the lower end of the flue C, thence upward, thence downward, and are discharged into the drum near its bottom. They give off caloric at every part of their course, and raise the atmosphere of the drum to a high temperature. Upon issuing from the flue they ascend to the upper part of the drum, and, still giving off heat, pass out of the same.

It is evident that the products of combustion in the flue C may be retarded or accelerated at pleasure by manipulating the dampers, and that by closing the same the draft may be cut off entirely.

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

The combination, with a drum, A, having at its lower end an inside neck, *d*, and at its upper end the removable top *c*, provided with a neck, *a*, and damper B, seated in said neck, of the continuous flue C, composed of sections *e*, forming an ascending and a descending branch, *f f'*, the former provided with a damper, *g*, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

NICHOLAS JULIUS ENGLER.

Witnesses:

H. S. LOWDERBAUGH,

W. H. LOWDERBAUGH.