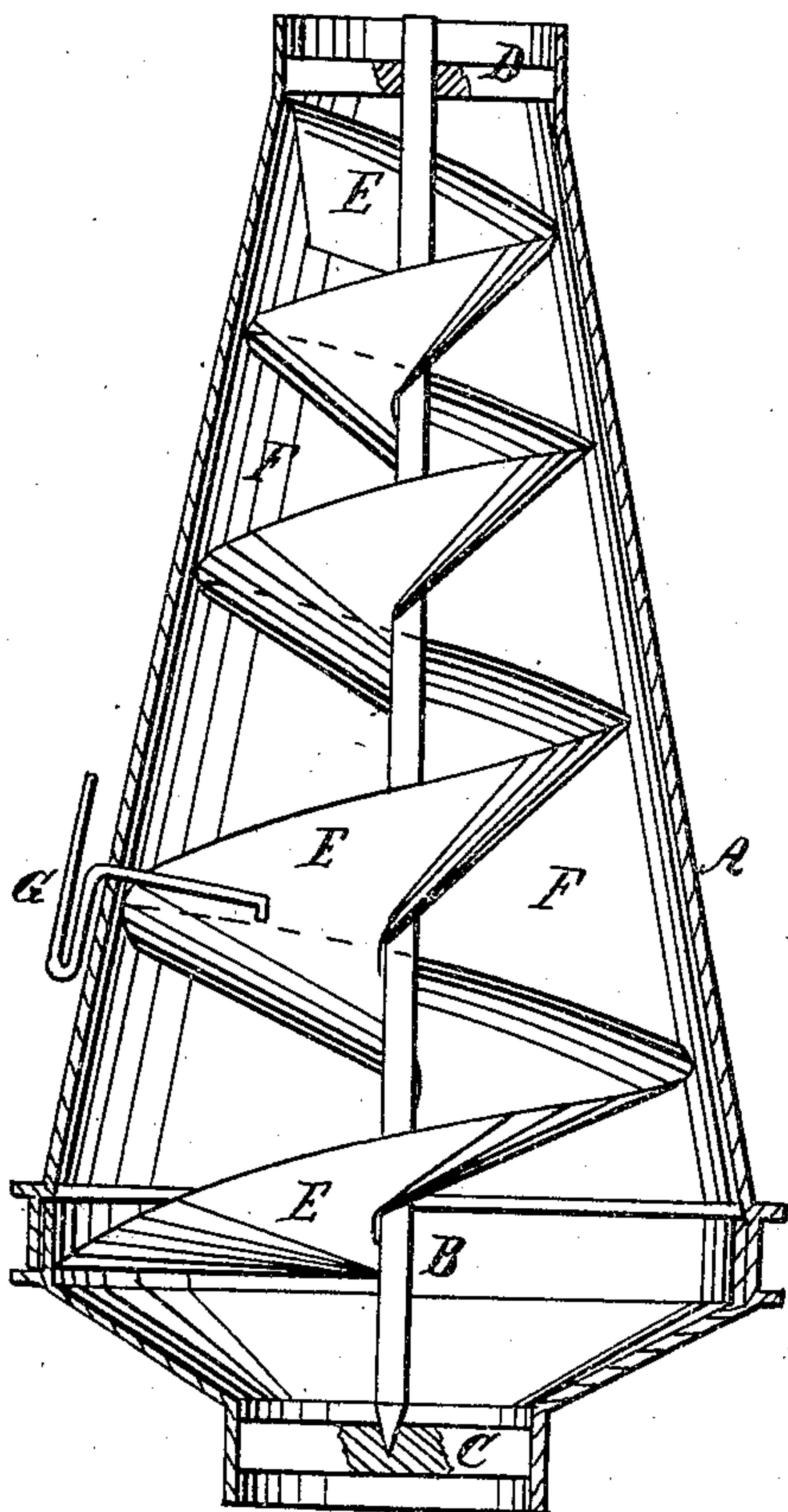


E. Stadter

Heating Drum

N^o 89,698

Patented May 4, 1869



Witnesses

A Bennewendoff

John F. Brooks

Inventor

E. Stadter

per

Munn & Co

Attorneys

United States Patent Office.

F. STÄDTER, OF PLATTSMOUTH, NEBRASKA.

Letters Patent No. 89,698, dated May 4, 1869.

STOVE-DRUM.

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, F. STÄDTER, of Plattsouth, Cass county, Nebraska, have invented a new and useful Improvement in Stove-Drums; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful improvement in drums for radiating heat, and it consists in making the drum in a conical form, and placing therein a spiral revolving cone, which is operated by the ascending current, and stopped, or retarded by a brake, that the current may be partially arrested and retained in the drum a sufficient length of time to part with its heat, as occasion may require.

The accompanying drawing represents a vertical section of the drum, with the spiral cone thereon.

A is the drum, which is made conical, or tapering from near its lower end upward, as seen in the drawing.

The lower end may rest on a stove, or the drum may be placed in any other position, so that the gaseous products of combustion may pass through, or a current of heated air from any source separated from the smoke and heated gases, may be discharged.

B is a vertical shaft, or spindle, which is supported on a step-piece, C, at the bottom end, and by the cross-piece D at its upper end.

To the spindle B the spiral E is attached, made tapering, to correspond with the form of the drum. This spiral is made of thin sheet-metal.

As the ascending current of heated air, or gases, impinges against the inclined under side of the spiral cone, sufficient power is imparted to revolve it. By retarding it, or stopping it entirely, the heated air, or gases, are made to travel around the spiral through the flue F, until discharged from the top end.

G represents a brake, or stop, which acts upon the spiral when pushed inward.

Any other suitable device may be employed for either stopping or retarding the motion of the spiral.

By this arrangement the current through the drum may be made to travel fast or slow, and consequently more or less heat will be radiated from the drum, according to the temperature required.

By thus controlling the upward current, the heat is utilized, and not allowed to escape up the chimney, while there is ample room for the escape of smoke and gas. The advantages of this arrangement are, perfect control of the heat generated, and a consequent saving of fuel.

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

The conical drum A, and spiral cone E on the shaft B, arranged and operating substantially as shown and described for the purposes set forth.

The above specification of my invention, signed by me, this 1st day of February, 1869.

F. STÄDTER.

Witnesses:

WM. L. WELLS,

WM. STADELMANN.