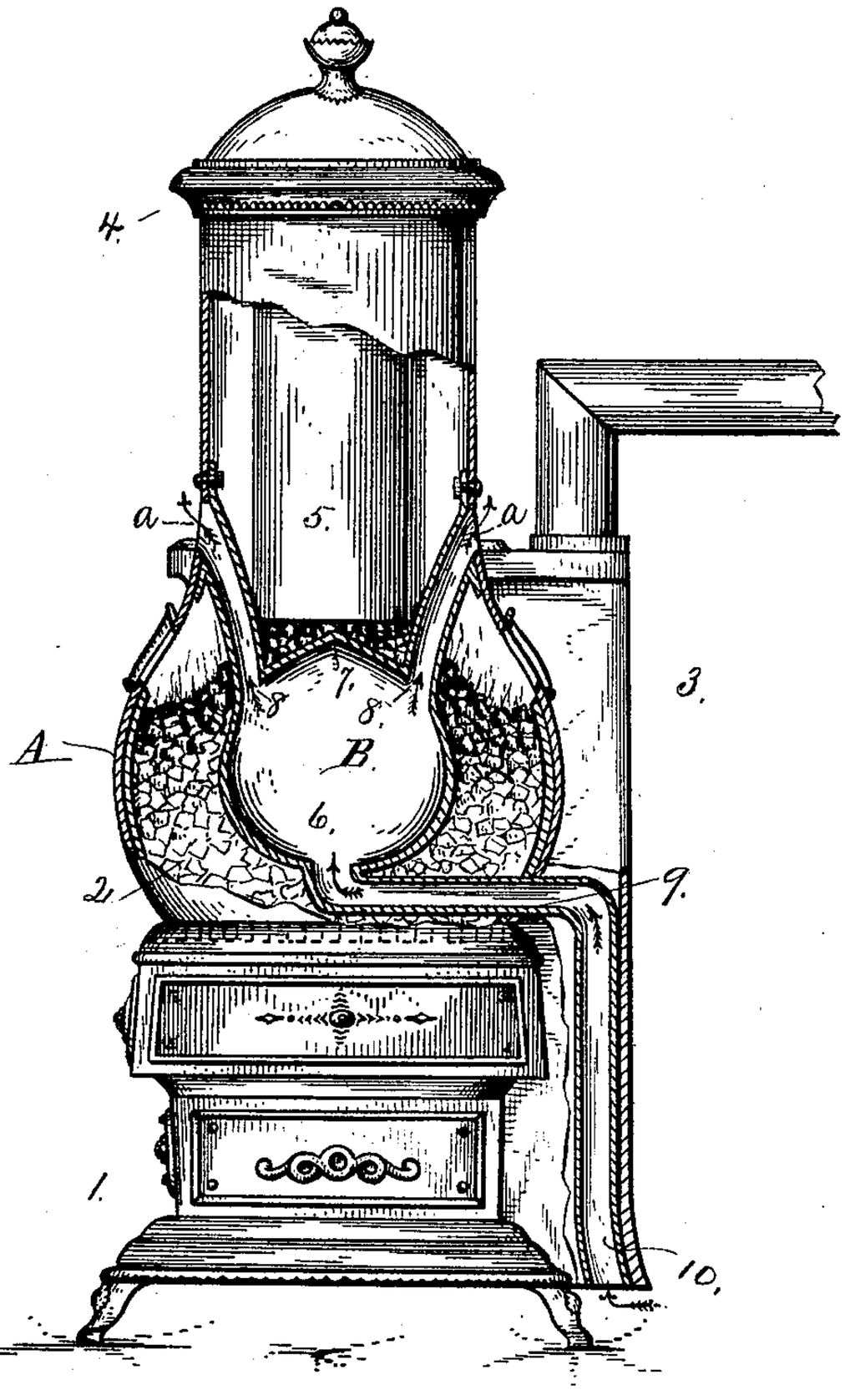
(No Model.)

T. CASWELL.

STOVE.

No. 366,926. Patented July 19, 1887.



Witnesses
J. Thomson Cross.
S. T. Marshall

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UNITED STATES PATENT OFFICE.

THOMAS CASWELL, OF CHEROKEE, IOWA.

STOVE.

SPECIFICATION forming part of Letters Patent No. 366,926, dated July 19, 1887.

Application filed February 9, 1887. Serial No. 227,040. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CASWELL, a citizen of the United States of America, residing at Cherokee, in the county of Cherokee, in the State of Iowa, have invented a new and useful Improvement in Hot-Air Stoves, of which the following is a specification.

My invention has relation to improvements in means for utilizing the interior parts of stoves for distributing hot air in the compartments; and my invention consists in a globular hot-air chamber sustained within the fire-chamber of a stove by means of conducting-pipes let through the shell of the stove, and having a cold-air pipe opening into the globe from below.

I have fully illustrated my invention in the accompanying drawing as applied to a parlor self-feeding stove, wherein is given a view, partly in section, of a stove with my hot-air chamber applied, the shell of the stove being broken away in parts to show the same more fully.

Reference being had to the drawing, the letter A designates the stove, of approved style, consisting of the base 1, combustion-chamber 2, having the damper-space 3, and the top 4, having the feed-reservoir 5 secured therein. Since these may be of any of the approved constructions, and are generally well-known, no other or further description of them is deemed essential to the proper application of my invention.

The letter B designates my improved hot-air chamber. This consists of a globular chamber, 6, preferably having a conical upper formation, 7, intended to set under the delivery end of the magazine of the stove, the cone being designed to let the dropping coal separate and be distributed about the hot-air chamber in the combustion-chamber of the stove. The hot-air chamber is arranged in the combustion-chamber so as to leave sufficient space between its surface and the shell of the stove to warrant a quantity of fuel, enough to burn freely and yet keep combustion up. From the upper surface of the hot-air chamber are projected two or more hot-air pipes, 8, which open from the chamber and are extended and have their open outer ends secured to the shell of the stove to register with the apertures *a*, formed in the shell of the stove above the fire-pot, substantially as seen in the drawing. From the bottom part of the hot-air chamber is led downward the cold-air pipe 9, preferably carried from the bottom of the chamber across the combustion-chamber through the shell of the stove, enlarged and carried down to the bottom flange of the base of the stove, as seen at 10. It will thus be seen that the hot-air chamber is sustained by the ends of the hot-air pipes in conjunction with the cold-air pipe. By my invention the caloric effects of the interior combustion of the fuel are fully and completely utilized in heating the compartment, and at the same time a great saving of fuel is obtained.

It may be requisite and necessary to make the combustion-chamber of the stove to which my invention is applied broader than ordinary, in order to get the full benefit of my invention and afford the space desired for steady, durable, and complete combustion; but such construction will be perceived by those skilled in the art.

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

The combination, with the shell of a heating-stove, A, formed with apertures *a*, of a globular hot-air chamber set in the combustion-chamber and under the magazine of the stove, and formed with two or more hot-air pipes projected from the upper part of the hot-air chamber in opposite directions, said pipes having their outer ends fastened to the shell to register with the said apertures of the stove, and a cold-air pipe opening into the bottom of the hot-air chamber and led across the bottom of the combustion-chamber, and thence down the inner side of the shell of the base of the stove, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

THOMAS CASWELL.

Attest:

E. C. HERRICK,

D. LAYTON.