No. 886,391. PATENTED MAY 5, 1908.

J. E. MOORE.

HEATING AND VENTILATING SYSTEM.

APPLICATION FILED APR. 9, 1906.

Fig. 1.

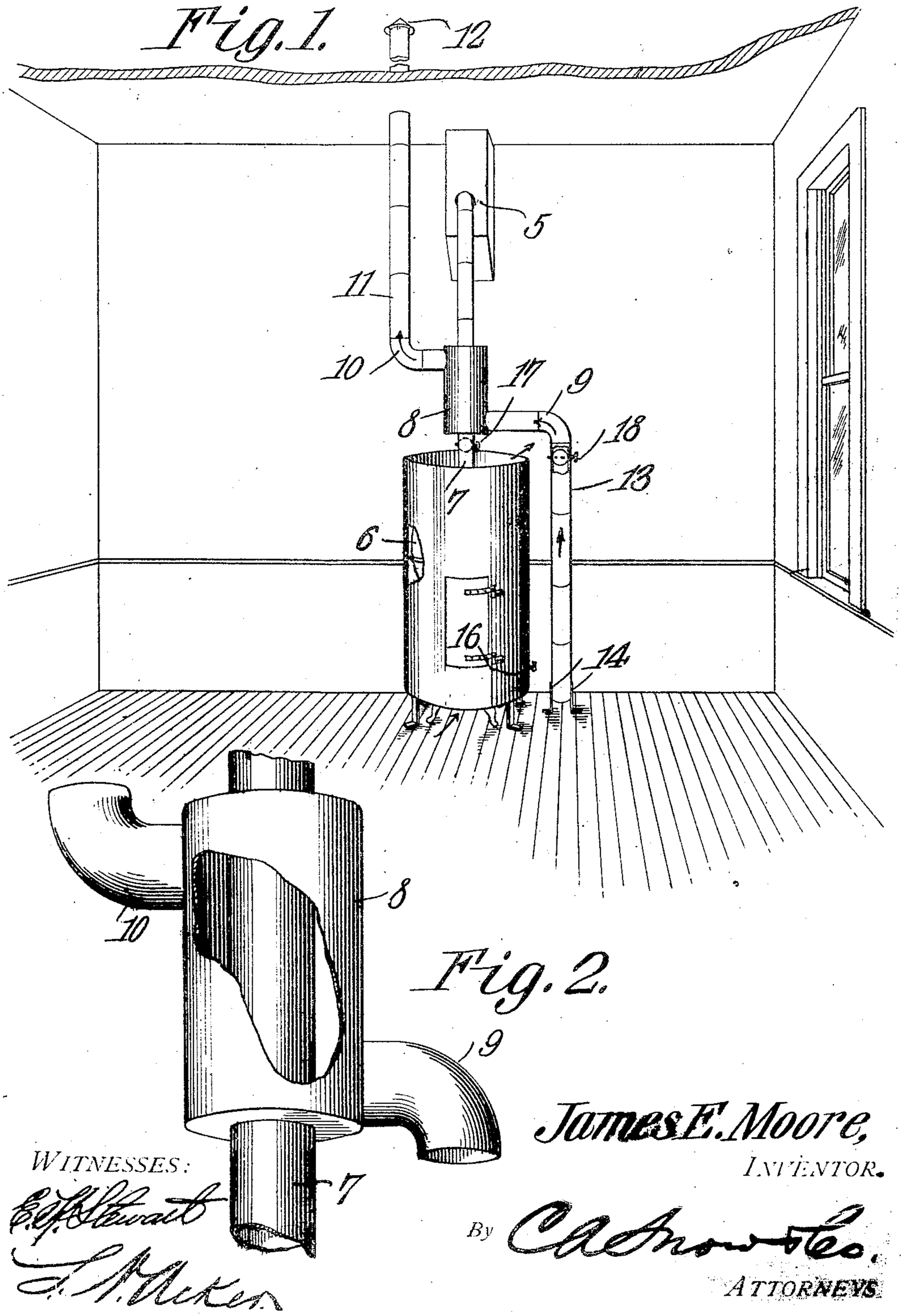

Fig. 2.

WITNESSES:

E. J. Stewart

E. F. Mecker

James E. Moore,

INVENTOR.

By Church & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES E. MOORE, OF FAYETTE, IOWA.

HEATING AND VENTILATING SYSTEM.

No. 886,391. Specification of Letters Patent. Patented May 5, 1908.

Application filed April 6, 1908. Serial No. 310,681.

To all whom it may concern:

Be it known that I, JAMES E. MOORE, a citizen of the United States, residing at Fayette, in the county of Fayette and State of Iowa, have invented a new and useful Improvement in Heating and Ventilating Systems, of which the following is a specification.

This invention relates to heating and ventilating systems of that general class especially designed for installation in dwelling houses, churches, school rooms and similar places and has for its object the provision of a combined system of this character by means of which the interior of the room may be thoroughly ventilated and maintained at a uniform temperature.

A further object of the invention is to provide a circulating drum designed for attachment to the draft pipe immediately above the stove or furnace so that the heat from said stove will expand the air in the drum and through the medium of a conducting pipe or tube remove the foul air from the interior of the room.

A further object is to surround the stove or furnace with a sheath or casing which confines the hot air and deflects the same upwardly in contact with the circulating drum thereby to assist in heating said drum.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a perspective view of a combined heating and ventilating system constructed in accordance with my invention. Fig. 2 is a perspective view of the heating drum detached, a portion of the walls of the drum being broken away to show the interior construction thereof.

The improved heating and ventilating system is principally designed for installation in rural school houses for heating and ventilating the interior of the school room or rooms and by way of illustration is shown installed in a room adjacent the chimney 5.

The heating medium is preferably in the form of a stove or furnace 6 of any suitable construction and to which is attached the stove pipe 7 extending parallel with the adjacent wall of the room and connected with the chimney 5. Disposed immediately above the stove 6 and surrounding the draft pipe 7 is an air circulating drum 8 having oppositely disposed elbows 9 and 10 to one of which is connected in any suitable manner an air discharge pipe 11 which extends through the roof of the building and is provided with a terminal hood or cap 12 to prevent rain and snow from entering the room through the pipe 11. Secured to the opposite elbow 9 is a conducting pipe 13 the lower end of which is spaced from the floor of the room and secured thereto by suitable supporting brackets 14. It will thus be seen that the air in the circulating drum 8 will be heated from the products of combustion in the draft pipe 7 thereby expanding the air in said drum and producing a forced draft which causes the cold foul air to enter the pipe 13 at the floor of the room and thence be discharged through the pipe 11 to the atmosphere, as indicated by arrows in Fig. 1 of the drawings.

The stove or furnace 6 is preferably surrounded by a cylindrical sheath or casing 15 having its lower end spaced from the floor of the room and its upper end open and spaced from the drum 8 thus serving to confine and heat the air between the casing and stove and deflect the heated air upwardly in contact with the exterior of the drum 8 and thereby assist in heating said drum as well as to equally distribute the heat within the room.

The casing 15 is provided with a fresh air intake or damper 16 by means of which the amount of cold air admitted between the casing and the stove may be regulated at will, there being dampers 17 and 18 arranged within the pipes 7 and 13 for controlling the draft and discharge of foul air, respectively.

By positioning the air drum on the draft pipe 7 immediately above the stove the air in said drum is heated from within and without so that a constant circulation is maintained and the foul air effectually removed from the room and discharged to the atmosphere.

From the foregoing description it will be seen that there is provided an extremely simple, inexpensive and efficient device admirably adapted for the attainment of the ends in view.

Having thus described the invention what is claimed is:

A ventilator for rooms including a cylindrical drum adapted to surround the draft pipe of a stove immediately above the latter and having its opposite ends closed and its side walls provided with oppositely disposed elbows communicating with the interior of the drum, there being alined openings formed in the closed ends of the drums for the reception of the draft pipe, an air conducting pipe secured to and extending downwardly from one of the elbows and having its lower end spaced from the floor of the room and provided with depending brackets for attachment to said floor, a discharge pipe extending upwardly from the opposite elbow for discharging the foul air to the atmosphere, and a damper disposed within the air conducting pipe between the brackets and adjacent elbow for regulating the quantity of air admitted to the interior of the drum.

J. E. MOORE.

Witnesses:
F. S. WALKER,
G. A. BIRSS.