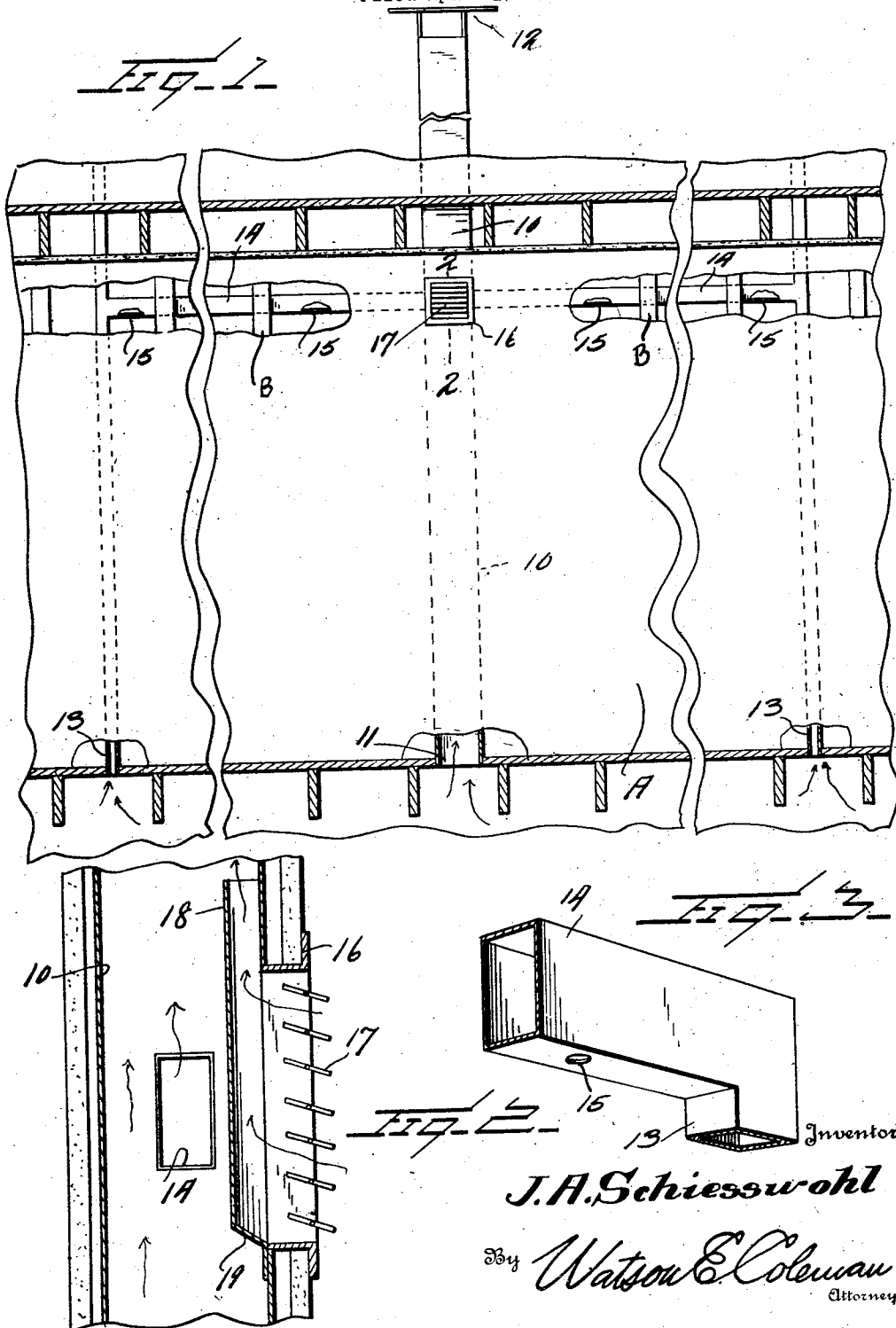


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VENTILATING SYSTEM FOR BUILDINGS

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VENTILATING SYSTEM FOR BUILDINGS.

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This invention relates to means for ventilating houses and the general object of the invention is to provide means whereby dead air ordinarily contained within the interior walls of a house between the outer sheathing and the lath and plaster may be withdrawn to thereby carry off the damp and foul air, thus avoiding dry rot of wood, keeping the building in a dry and healthy condition and insuring its longer life.

A further object is to provide a ventilating system of this character which will draw the foul air out from between the walls of the building and from the basement thereof and also withdraw foul air from the upper portion of the rooms thereof.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings wherein:—

Figure 1 is a fragmentary sectional view through a building showing the application of my ventilating system thereto;

Fig. 2 is a section on the line 2—2 of Figure 1;

Fig. 3 is a perspective view of a portion of the pipe 13.

In the drawings I have illustrated only a portion of a building sufficient to illustrate the principle of my invention.

In these drawings 10 designates a discharge stack which will preferably be built into one of the walls of the building and open into the cellar or basement as at 11, this exhaust stack extending upward through the ceiling of the room A and through the roof of the house and extends any desired distance above the roof. The top of the exhaust stack may be covered by means of a shield 12 of any suitable character to prevent the inlet of rain or may be provided with a chimney cowl or anything of this nature so as to cause a steady draft up the stack. A suction pipe or a number of suction pipes 13 are disposed in the partition walls or outer walls and extend upward from the basement to a point about 4" below the ceiling of the room, then extends at right angles as at 14, through the wall and entirely concealed thereby and opens into the exhaust stack at the rear thereof.

The pipe 13 will preferably have a cross sectional area of 2" x 1" or in other words will be 2" in height and 1" wide and may be made of any suitable material. The under face or lower side of this pipe 14 will

be provided with openings 15 opening downward and disposed between the studding B so that the damp or foul air between the outer sheathing and the lath and plaster or between the lath and plaster on opposite sides of the wall will be withdrawn through these apertures 15 in the pipe 14 and so carried into the stack.

Disposed within the stack adjacent the ceiling of the room is a register 16 which will preferably have movable dampers 17 ordinarily found in registers or may be provided with an ordinary louver if desired.

Spaced from the front of the register is a wall 18 and extending from the lower portion of the register opening rearward to this wall 18 is a wall 19 as shown in Figure 2. The upper end of the compartment defined by the walls 18 and 19 and the side walls of the stack is open. This register compartment is less in depth than the depth of the main stack and the pipes 14 enter the stack 10 rearward of the wall 18. Thus, all foul air within the room will be drawn out through the ventilator and into the stack without any tendency of the damp or foul air passing upward through the stack being discharged into the room.

In the drawing I have illustrated a portion of a building provided with my improved ventilating system but it will be understood that the details will be varied to suit the details of construction of the building or the design thereof and that the drawings are merely illustrative of the principle of my ventilating system.

The pipes which extend upward through the partition walls are intended to be entirely concealed and to withdraw air from the basement or cellar. The horizontal pipes are to be entirely concealed within the walls of the building and to withdraw foul or damp air from between the studding. There may be as many stacks 10 as desired or as found necessary into which these horizontal pipes 14 open and it is intended that each room of the building shall be provided with a register opening into a main stack though it is obvious that under some circumstances an air duct may be connected between the main stack and the register opening where it is impossible to have a main stack pass through a room or impossible to have the register opening from a room open directly into the main stack because of certain details of construction or because of the pe-

culiar design of the building. Therefore, it is within the purview of my invention to connect a register to the main stack by a duct if necessary.

5 With this construction dry rot is prevented and the house is preserved in much better condition by withdrawing the dead, damp or foul air from between the walls as well as withdrawing foul air from the room and
10 from the cellar. I do not wish to be limited to the details illustrated as these might be varied in many ways without departing from the spirit of the invention as defined in the appended claims.

15 It will be understood, of course, that the pipe 13 will be extended upward to the second floor and to the third floor if necessary and at this second floor and the third floor it will connect with another pipe 14
20 in exactly the same manner as on the first floor and then there would be a room register opening into the pipe 10 on the second and third floors as on the first floor. The studding would, of course, have to be
25 strengthened in order to keep the pipes 14 and 10 in place.

I claim:—

1. In a building having a basement, hollow walls and studding, a main ventilating stack extending upward from the basement and through the roof of the building
30 and opening at its lower end into the basement, pipes extending upward from the basement through said walls and between the studding, horizontal pipes connected to the last named pipes and opening into the ventilating stack, said horizontal pipes being
35 entirely concealed within the walls of the building and having downwardly directed openings disposed between the studding of the walls to thereby receive foul air from the spaces defined by said studding.
40

2. In a building having a basement, hollow walls and studding, a main ventilating stack extending upward from the basement
45 and through the roof of the building and opening at its lower end into the basement, pipes extending upward from the basement through said walls and between the studding, horizontal pipes connected to the last
50 named pipes and opening into the ventilating stack, said horizontal pipes being entirely concealed within the walls of the building and having downwardly directed openings disposed between the studding of
55 the walls to thereby receive foul air from the spaces defined by said studding, the ventilating stack having a ventilator opening thereinto from a room of the building.

3. In a building having a basement, hollow walls and studding, a main ventilating stack extending upward from the basement
60 and through the roof of the building and opening at its lower end into the basement, pipes extending upward from the basement through said walls and between the studding, horizontal pipes connected to the last
65 named pipes and opening into the ventilating stack, said horizontal pipes being entirely concealed within the walls of the building and having downwardly directed openings disposed between the studding of
70 the walls to thereby receive foul air from the spaces defined by said studding, the ventilating stack having a ventilator opening thereinto from a room of the building, said ventilator having a rear wall and a bottom wall, the rear wall extending upward above the opening of the ventilator, the horizontal
75 pipes opening into said stack rearward of said rear ventilator wall.
80

In testimony whereof I hereunto affix my signature.

JOHN A. SCHIESSWOHL.