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# UNITED STATES PATENT OFFICE.

ROBERT MAYO AND ROBERT MILLS, OF WASHINGTON, DISTRICT OF COLUMBIA.

MODE OF VENTILATING AND SUPPLYING HOUSES, &c., WITH WARM OR COOL AIR.

Specification of Letters Patent No. 67, dated October 24, 1836.

*To all whom it may concern:*

Be it known that we, ROBERT MAYO, M. D., and ROBERT MILLS, architect, both of the city of Washington, in the District of Columbia, have invented new and useful Improvements in the Mode of Ventilating and Supplying Houses and Apartments with Warm or Cool Air, and that the following is a full and exact description of the said improvements as invented by us.

This invention consists of certain combinations of inventions, or improvements already in use applied to the purposes of ventilating, and supplying houses or apartments with warm, or cool air, viz: 1. For ventilating and supplying apartments with rarefied, or warm air, the undersigned ROBERT MAYO and ROBERT MILLS, combine or connect the flues of suitable dimensions constructed in the masonry of the wall, or chimney as described in the said ROBERT MAYO's patent for supplying atmospheric air to fire places, or grates by pneumatic pressure, dated the 9th of September, 1835, with the hot air chamber, or reverberating space around the fire chamber of the grate, or fire place of the apartment as described in the said ROBERT MAYO's patent for a reverberating grate dated the 1st of November, 1826, or otherwise in use so that the air to be heated in said hot air chamber, or reverberating space shall be supplied from a lower medium by atmospheric pressure, or draft through the said flues constructed in the masonry as aforesaid and be conveyed from said hot air chamber into the apartment in the manner described in the said patent of the 1st of November 1826, or otherwise in use. Or 2d the said MAYO and MILLS also combine and connect the lower extremity of said flues with the hot air chamber of a suitable furnace constructed for the purpose in the basement of the building with pipes to convey the warm air from the hot air chambers of said furnace into the flues in the masonry, and from said flues where they terminate in the apartment. The said MAYO, and MILLS cause the warm air to circulate in the apartment by closing the funnel of the chimney, or other vents near the floor, and opening one, or more air vents near the ceiling to be continued into an upper apartment, or into

the chimney or into the outer air. The said MAYO, and MILLS also connect the said furnace, or not at discretion, with subterraneous tubes, culverts, or excavations located under or contiguous to the basement of the building, and on different sides or directions at pleasure to communicate with the outer air by tubes to be protected by gratings at their outer extremities, and to be surmounted, or not with open movable funnels to receive and supply the draft of air from any direction. Or 3, when the object is to ventilate, and supply the apartment with cool air, or air of reduced temperature, the said MAYO, and MILLS dispense with the furnace as just described so that the draft through the flues may be derived from the open air, or atmosphere to be circulated in the apartment, without the heating process as just described of the warm air from the warm air chamber of the furnace, or they simply dispense with the fire in the furnace, or in the fire place in the apartment for the time being, and substitute therefor a body of ice to be so disposed of in connection with the draft of air through the tube, and flues as to reduce its temperature, the whole of said air drafts to be governed by suitable valves in the flues, or tubes with this system of improvements in the construction of chimneys, fire places, flues, &c. We propose to connect, or add a series of suitable apertures secured by iron doors in the garret, or attic rooms communicating with each smoke flue by which the same may be swept or cleansed from soot by means of suitable brushes, and cords without requiring the sweeping boy to pass through the same for that purpose.

What we, the said MAYO, and MILLS, claim as our joint invention and improvement in the foregoing description consists simply in—

The combination, and connection of the several means, and devices herein above enumerated and referred to for the purposes of ventilating and supplying houses and apartments with warm, or cool air.

ROBT. MAYO.  
ROBT. MILLS.

Witnesses:

W. CRANCH,  
P. H. MINER.