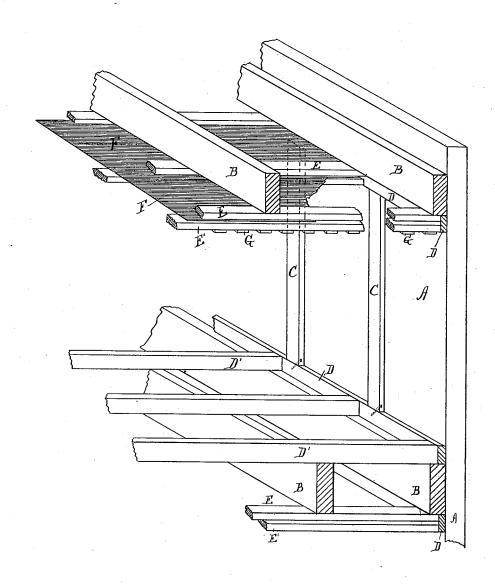
B. R. HAWLEY.

DWELLING.

No. 261,227.

Patented July 18, 1882.



XITNESSES_ I. Everett Brown AMunday. Benj: R. Hawley,
By Munday Evants Yaresek,
his attys.

UNITED STATES PATENT OFFICE.

BENJAMIN R. HAWLEY, OF CHICAGO, ILLINOIS, ASSIGNOR TO AGNES HAWLEY, OF SAME PLACE.

DWELLING.

SPECIFICATION forming part of Letters Patent No. 261,227, dated July 18, 1882. Application filed February 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN R. HAWLEY, of Chicago, Cook county, State of Illinois, have invented certain new and useful Improve-5 ments in Dwellings and other Buildings, of which the following is a specification.

This invention relates to improvements in dwellings and other buildings; and it consists in the novel features hereinafter set forth and

to explained.

The accompanying drawing gives in perspective a sectional view of a portion of a building to which my present improvements have been applied, and therein A represents 15 one of the walls of the building, and B the joists thereof. C are the furring-strips attached to the wall, to which the lath are nailed. These strips are not continuous, but extend from floor to ceiling only, and at top and bot-20 tom rest under and upon the strips D, which are laid above and below the joists, as shown. Said strips D are also employed at the walls which support the ends of the joists, being in such cases laid across the latter, such use being 25 for the same purpose as when laid parallel with the wall-joists; but in all cases where this feature of my invention is used the strips D, or both strips and joists, should be placed close against the wall, so that when the floor is laid, 30 and the ceiling put on communication will be shut off at that point between the different stories and the floor-space be isolated from the wall-spaces. The strips D' are placed across the joists, and upon them the floor is 35 laid in the usual manner. These strips form the channels through which warm air passes under and warms the floor, as disclosed in the patent to me of October 29, 1878. The returnchannels under the joints, whereby the air is

floor and given up its heat thereto, are formed by the strips E, nailed to the under side of the joists transversely to the same. In my present invention I secure to the un-45 der side of the strips E widths of building-pa-

40 drawn off after it has been in contact with the

per F, laid lengthwise of said strips, and with the joints between the pieces of paper covered and rendered tight by supplemental and par-

allel strips E', similar to the strips E nailed to the latter through the paper. The plaster- 50 ing-lath G may be nailed to the strips E' in the usual manner. The paper forms a continuous and air-tight layer coextensive with the apartment where it is used, and acts in attic stories to prevent the escape of heat in 55 cold and the entrance of heat in warm weather, to prevent the passage of gas, odors, and foul air from lower into upper stories, and to deaden the sound. Another important result of using this paper is to prevent the deposit 60 of dust between the lath, which in time discolors the plastering, making a dark line between each pair of adjacent lath. By using heavy water-proof building-paper, which is also impervious to air, there is no filtration of 65 the air through the ceiling, and hence no dust deposit, thus keeping the plastering uniform in color, as well as retaining the heat and stopping the sound-waves.

In practice it saves much time and labor to 70 lay the strips D before attaching the furringstrips C, and in no case, for the reason already stated, should the latter be laid between the

strips ${f D}$ and the wall.

Where my system of floor warming is not 75 used the strips E may be dispensed with with. out affecting materially the other benefits accomplished by the invention; but in such cases I recommend the lapping of the sides of paper, so as to make tight joints between them, 80 or that other means to that end be adopted.

I claim

1. The combination, with the ceiling and joists of a house, of the paper F and the supplemental strips E', secured to the under side 85 of the joists, substantially in the manner and for the purpose set forth.

2. The combination of the furring-strips C, the horizontal strips D and the air-channelforming strips D' and E with the wall and 90

joists, substantially as set forth.

B. R. HAWLEY.

Witnesses:

H. M. MUNDAY, T. EVERETT BROWN.