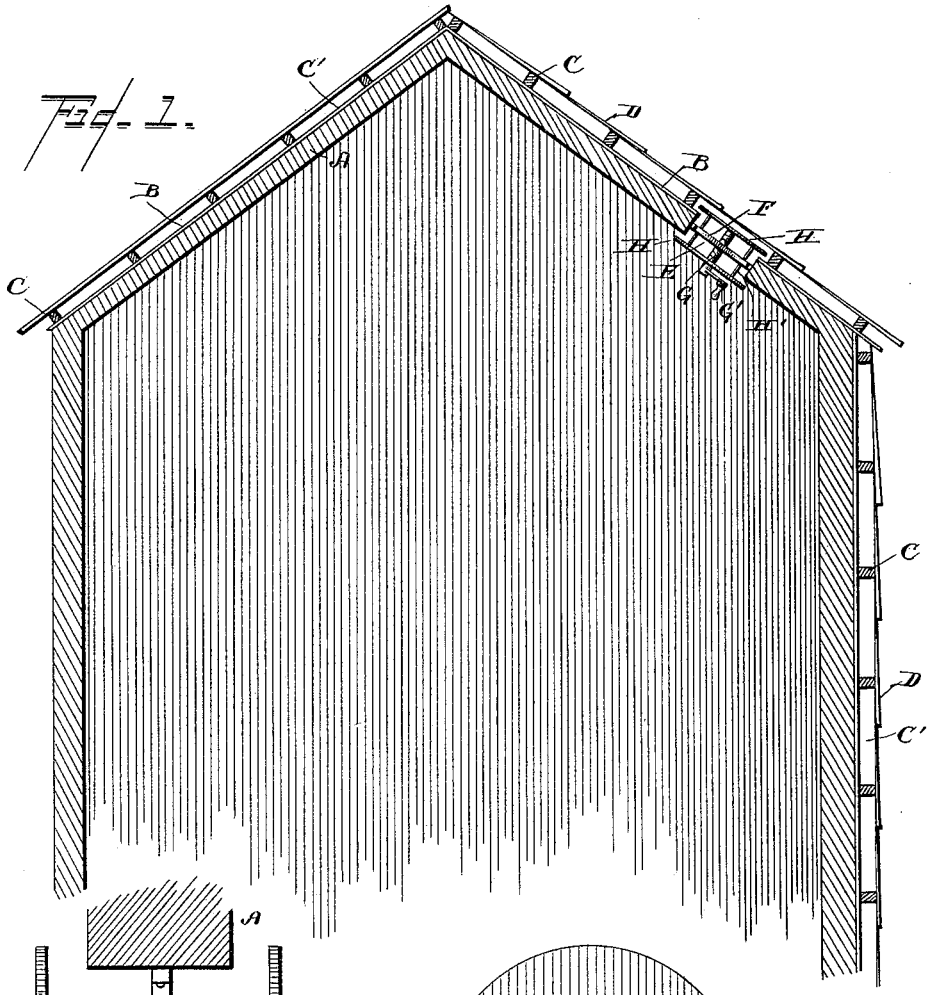
(No Model.)

J. HAISH.

ROOF.

No. 386,465. Patented July 24, 1888.

Fig. 1.



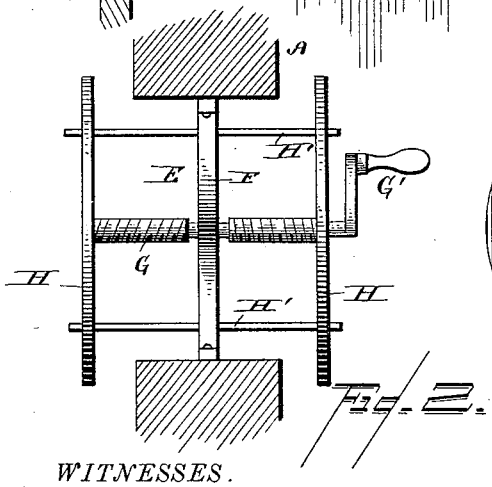


Fig. 2.

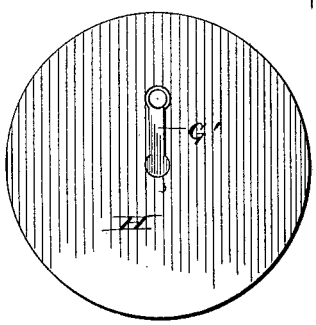


Fig. 3.

WITNESSES.

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SPECIFICATION forming part of Letters Patent No. 386,465, dated July 24, 1888.

Application filed February 23, 1888. Serial No. 265,027. (No model.)

To all whom it may concern:

Be it known that I, JACOB HAISH, a citizen of the United States, residing at De Kalb, in the county of De Kalb and State of Illinois, have invented certain new and useful Improvements in Roofs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to improvements in roofs; and it consists in a novel construction whereby the air is permitted to circulate under the shingles or outer coating for the purpose of preserving the material, and also to afford means of readily ventilating the interior of the building through the stratum of air between the exterior coating and the interior portion of the roof or side, which stratum, being largely stationary, has the effect also, as a non-conductor of heat, of adding to the warmth of the roof or wall so far as relates to retaining the heat which may be within the building, but at the same time excluding from the interior any intense exterior heat, thus rendering the building warmer in cool weather and cooler in warm weather.

In the drawings, Figure 1 is a vertical section of a roof and wall provided with my improvement. Fig. 2 is a longitudinal section of the ventilator, which affords communication between the open interval in the roof or side and the interior of the building. Fig. 3 is an end view of said ventilator.

A is the inner roof and walls of a building which is constructed in any of the usual ways and of any of the customary materials.

B is a suitable sheathing, felting, or waterproof material placed upon the outside of the walls or sheeting of the roof and in direct contact therewith.

C C are horizontal strips transversely attached to the sheathing of felt or other material at such intervals, C', as it is intended that the shingles shall lie to the weather, so that the strips C shall be directly under the lap of the shingles and in proper relation thereto to receive the nails.

D D are shingles, which are nailed in the usual way and with any desired degree of lap to the strips C. If it be desired to use tin, boards, or other material in lieu of shingles, the same can be nailed or otherwise attached in any obvious manner to the strips C.

Holes E are formed at any desired localities in the roof or sides, extending from the interval between the strips C to the interior of the building. A transverse brace, F, is placed centrally in the opening E, and in the brace F is pivoted centrally the screw-shaft G, provided at its interior end with the crank G'. The shaft G is provided on its exterior with the screw-thread formed reversely each way from the shaft seat or brace F, and H H are plates adapted to close the interior and exterior openings, E, seated, respectively, on the shaft G at or near the outer ends of the latter, and provided, respectively, with screw-threads adapted to fit and be engaged by the reverse thread aforesaid on said shaft G.

H' are transverse rods, seated loosely in the plates H and rigidly in the braces F to prevent the plates H rotating with the shaft G.

It is obvious that when the shaft G is turned in any direction it will carry the plates H toward each other and respectively against the outer and inner extremities of the opening E, thus closing the latter; and when the shaft G is rotated in the opposite direction it will carry said plates H coincidently from the wall A, thus permitting the passage of the air under the plates H and through the openings E in either direction. The plates H can be adjusted, of course, to furnish any desired opening between them and the adjacent side of the wall A, and thus any degree of ventilation may be attained. The openings E, fitted with the aforesaid adjustments therein, may be of such frequency as may be desired, and as they communicate with the intervals between the strips C they afford ready escape for any vitiated inside air and equally ready admission for the exterior pure air, thus rendering the apartments healthful and agreeable and the upper chambers cool in summer. As the air in its passage through the openings E is deflected and distributed by its contact with the plates H, the evils and objections of a direct draft are therefore avoided.

If desired, the openings E, provided with the ventilating devices aforesaid, can be placed in communicating doors, so as to extend the ventilation through different rooms and make it more generally uniform.

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

1. The combination of the wall A, provided with the openings E therein, sheathing B, transverse strips C, and outer coating, D, and means, substantially as shown, for opening and closing said openings, for the purpose described.

2. The combination of the wall A, provided with the openings E therein, sheathing B, strips C, attached transversely at suitable intervals to the sheathing B, the shingles or outer coating, D, brace F, seated in openings E, screw-shaft G, seated in said brace, and plates H, adapted to be moved to and from each other in the rotation of the shaft G, substantially as shown, and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB HAISH.

Witnesses:

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SAML. P. BRADSHAW.