Sheet 1, 2 Sheets.

# H. M. Irwin.

## Construction of Buildings.

No. 94,116. Patented Aug. 24, 1869.

Fig: 1.

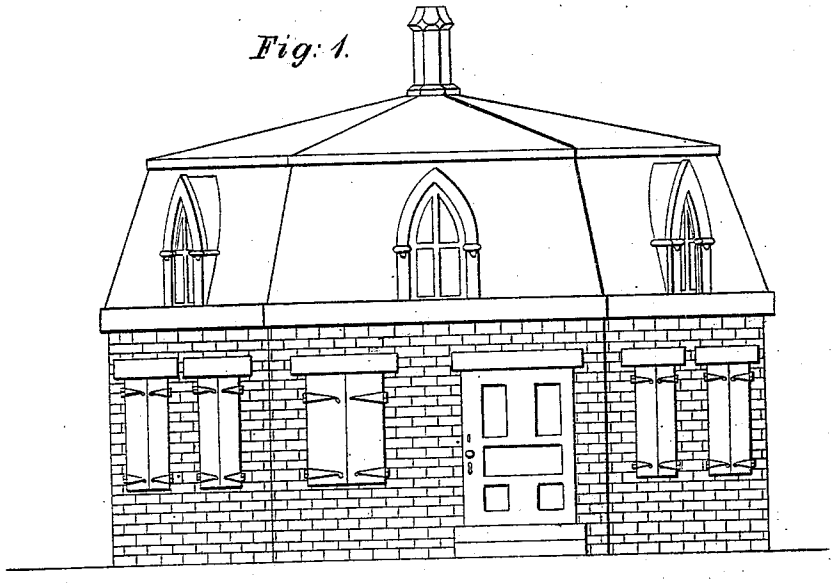
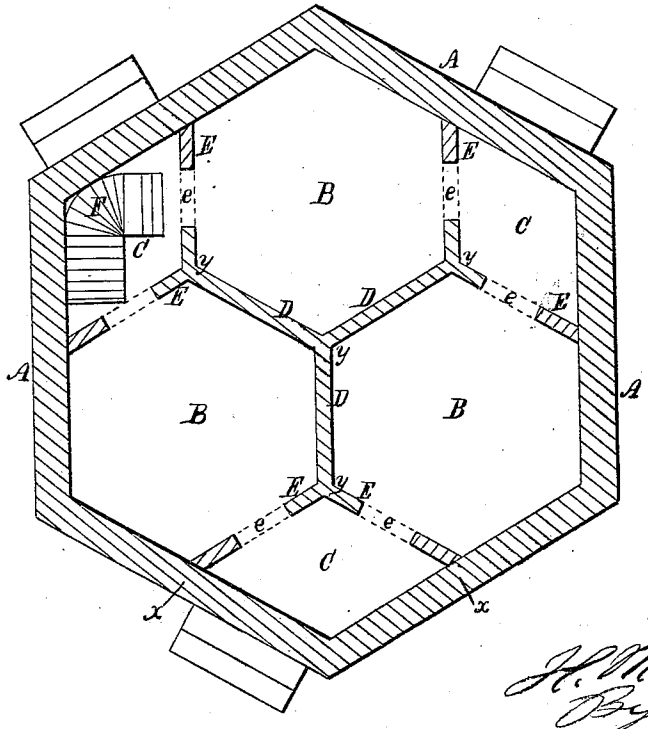


Fig: 2.




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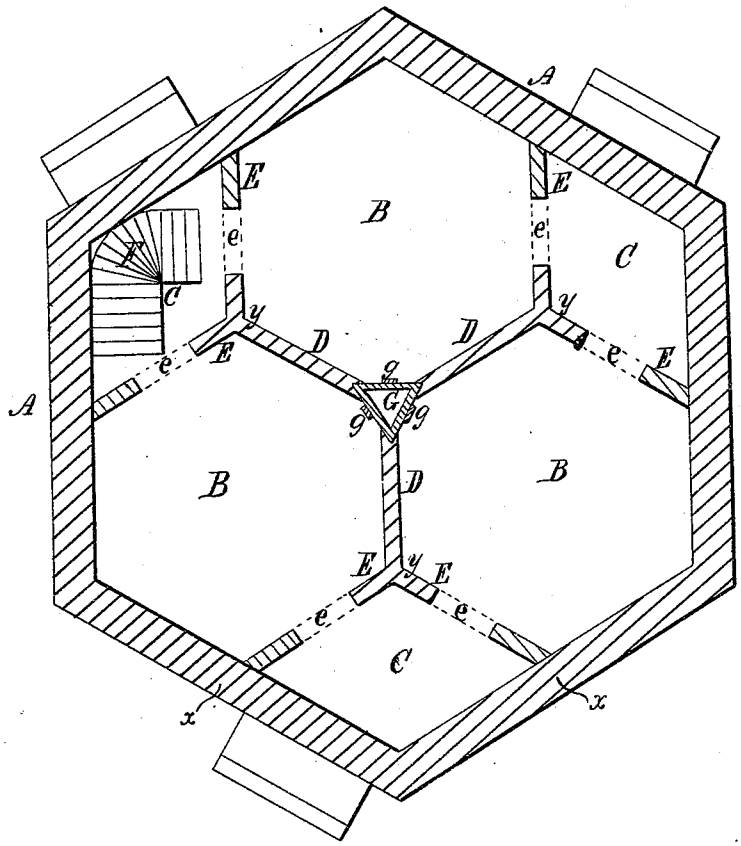
Sheet 2, 2 Sheets.

# H. M. Irwin.

## Construction of Buildings.

No. 94,110. Patented Aug. 24, 1869.

Fig: 3.




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# United States Patent Office.

H. M. IRWIN, OF CHARLOTTE, NORTH CAROLINA.

*Letters Patent No.* 94,116, *dated August* 24, 1869.

## IMPROVEMENT IN THE CONSTRUCTION OF HOUSES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, H. M. IRWIN, of Charlotte, county of Mecklenburg, State of North Carolina, have invented an Improvement in the Construction of Buildings; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of a dwelling-house or other building, hexagonal in form, and enclosing a space separated into hexagonal and lozenge-shaped rooms, substantially as described hereafter; also of a chimney-stack, arranged at the junction of the walls of the adjacent hexagonal rooms, and containing flues communicating with the fire-places in the several rooms.

The objects of my invention are the economizing of space and building-materials, the obtaining of economical heating mediums, thorough lighting and ventilation, and facilities for inexpensive ornamentation.

I will now proceed to describe the mode of carrying my invention into effect, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is an external elevation of a portion of a building constructed according to my improvement.

Figure 2, a sectional plan view.

The exterior walls A A of the building are at an angle of sixty degrees in respect to each other, and are all of the same width, so as to enclose a hexagonal space, and the latter is divided into hexagonal rooms B, and lozenge-shaped rooms C, by partitions D, meeting at the centre of the building, and partitions E, equal in length to the partitions D, and extending from the latter to the centre of each of the walls A, to which they are at an angle of thirty degrees.

In the partitions E E there are openings *e e*, in which to insert a door-jamb, should the same be desired.

Thus it will be observed, that without the aid of the ordinary passage, and its consequent waste of the interior area of the building, I at the same time have afforded every facility of communication between the different rooms. Thus it will readily be seen, that for the purposes of ventilation, &c., my arrangement is far superior to any other now used, while at the same time, when privacy is desired in either or all of the apartments, you have simply to close the doors that are hung in the jambs *e e*, and the same is instantly secured.

F is the stairway, and communicates with the basement below and the floor above.

G is the chimney-stack, and is arranged at the junction of the walls D D.

*g g g* are fire-places, arranged in the rooms B B B, and are connected with flues, each communicating with the chimney G.

In buildings which are square or oblong in form, it is difficult to so arrange the apartments that each shall be fully lighted without occupying a comparatively large area, and the construction of walls of considerable extent in comparison with the amount of space enclosed by the walls, while, owing to the extensive flat surfaces presented by the walls of the buildings, it is difficult to ornament them at a moder ate expense.

Where apartments hexagonal in form are arranged within a hexagonal building, a much greater floor-surface is obtained than in an oblong or square building having walls of a like extent, while the angles formed by the junction of the walls strengthen the latter, so that they may be of less thickness, and, consequently, less expensive to erect, than continuous flat walls of equal extent.

In consequence of the arrangement of the rooms, a portion of the exterior walls forms the side of each apartment, and the latter can therefore be fully lighted and ventilated.

In consequence of the inclination at which the different portions of the exterior walls are in respect to each other, some of these portions must almost invariably be in the shade, and the building may therefore be ornamented at less expense than one having walls presenting extensive and unbroken flat surfaces.

Inasmuch as the walls of each three adjacent rooms all meet at single points *y*, fig. 2, a single chimney-stack, having flues communicating with the fire-places of all these rooms, may be erected at any point where the walls join, the expense of erecting a number of stacks being thus avoided.

It will be apparent that verandas, porches, bow windows, or other ornamental and useful additions may be made to the exterior of the house; for instance, the walls A A may be cut away between the points *x x*, fig. 2, leaving a space suitable for a porch or veranda.

The rooms may, if desired, be subdivided, or one or more partitions may be removed to obtain single rooms of larger size.

Without confining myself to the precise construction and arrangement of rooms herein described and illustrated,

I claim as my invention, and desire to secure by Letters Patent—

1. A building hexagonal in form, when its entire interior area is divided by partitions D E into hexagonal and lozenge-shaped rooms, said rooms all

communicating with each other through openings *e e*, substantially as described, and for the purpose specified.

2. The chimney-stack G, arranged at the junction of the partitions D D of the hexagonal rooms B B B, when the same is provided with flues communicating with the fire-places *g g g*, substantially as described, as and for the purpose specified.

In testimony whereof, I have signed my name to this specification, in the presence of three subscribing witnesses.

H. M. IRWIN.

Witnesses:

M. A. OSBORNE,

RUFUS BARINGER.

I. M. HILL.