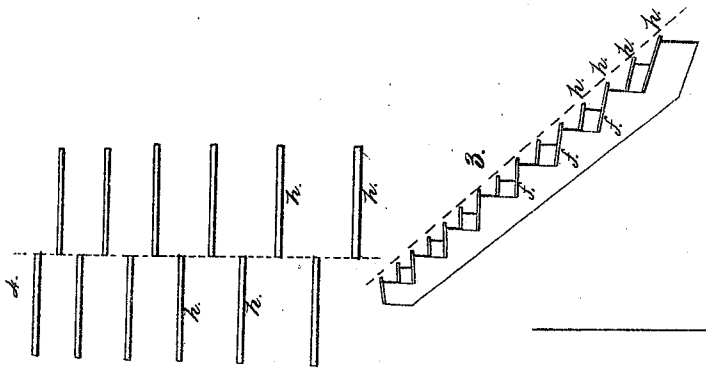
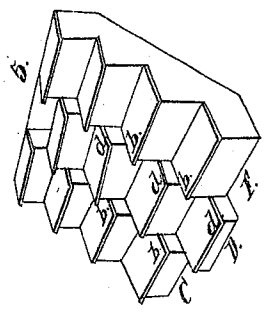
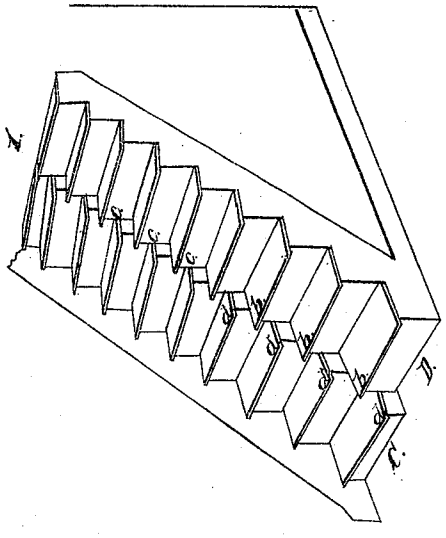
W. W. Page.

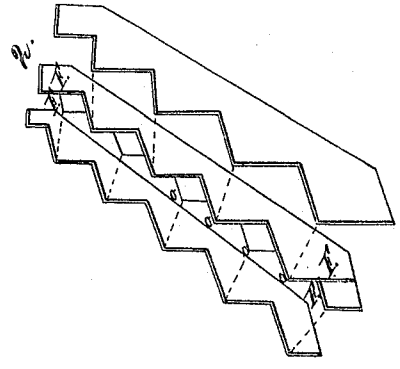
Staircase.

No. 71,049. Patented Nov. 19, 1867.









Witnesses:
Louis Potter
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Inventor.
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United States Patent Office.

WILLIAM W. PAGE, OF TROY, NEW YORK.

Letters Patent No. 71,049, *dated November* 19, 1867.

IMPROVEMENT IN STAIRS.

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, WILLIAM W. PAGE, of Troy, in the county of Rensselaer, and State of New York, have invented a new and useful Improvement in the Construction of Stairs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view.

Figure 2 represents a skeleton or frame for the same.

Figures 3 and 4 are plane views; and

Figure 5 a view of a triple flight.

The advantages of my improvement consist, first, in its securing greater ease of ascent with a given length of floor and height of ceiling; and second, in economizing the base or floor line where that is necessary or desirable.

These advantages I effect by combining two or more parallel flights of stairs in the same ascent, as in figs. 1 and 5, each stair in either flight dividing the distance between the stairs next above and below it in the opposite flight, figs. 1 and 5, *a a, b b; i. e.*, instead of extending the stair from side to side of the stair-case, I divide them into sections, so as to cut off the superfluous half of the stair over which the foot is raised in passing, and supply a separate flight to each foot C D in fig. 1, and C D E in fig. 5. The form of the staircase is further changed in that the riser of each stair springs from the middle point of its companion stair, half its height being above and half below the top of the accompanying stair, fig. 1, *c c c*, each stair receding half the breadth of the stair below it in the opposite flight, fig. 3, *f f f*. The edges of all the stairs of both flights lie in the same plane, figs. 3 and 4, *h h h*.

Fig. 2 represents the framework of a double flight. The centre pieces F F are so joined together, as to their serrated edges *o o o*, that the centre point of each step intersects the centre of the riser next above it, so that the points lie in a straight line.

A comparison of the proportions of such a staircase with those of the kind now in use will make my plan clearer and its advantages more obvious; *e. g*, to build in the ordinary mode, straight from floor to floor, the perpendicular distance between floors being ten (10) feet, requires fifteen (15) steps, ten (10) inches broad, with risers eight (8) inches broad, demanding a base or floor line of twelve (12) feet six (6) inches. But by my improved method, the same height ten (10) feet, will be reached with a base line of only ten (10) feet, at the same time allowing twelve (12) inches' breadth to each stair, and reducing to six (6) inches' breadth each half riser. I thus gain, over the old plan, a space on the floor of two (2) feet six (6) inches, diminish each lift of foot two (2) inches, and increase the breadth of each stair two (2) inches.

The maximum capacity of my improvement is to reduce the base line on the lower floor to exactly one-half its usual length, or by retaining the whole base line to apply this gain to an increase in the breadth of the steps, and a decrease in the breadth of the risers. But by varying the proportions of the steps, risers, and base line, all conditions, whether of necessity or comfort, can be met.

I do not claim as my invention the use of steps and risers in constructing stairs, but what I claim, and desire to secure by Letters Patent, is—

The combination of two or more parallel flights or sections in one staircase, or ascent of steps assigning a separate flight to each foot, substantially in the manner and for the purposes set forth.

WM. W. PAGE.

Witnesses:

HARLAN PAGE,

MARIA N. PAGE.