

(No Model.)

W. C. SPELMAN.

STEPS OR STAIRCASE.

No. 419,228.

Patented Jan. 14, 1890.

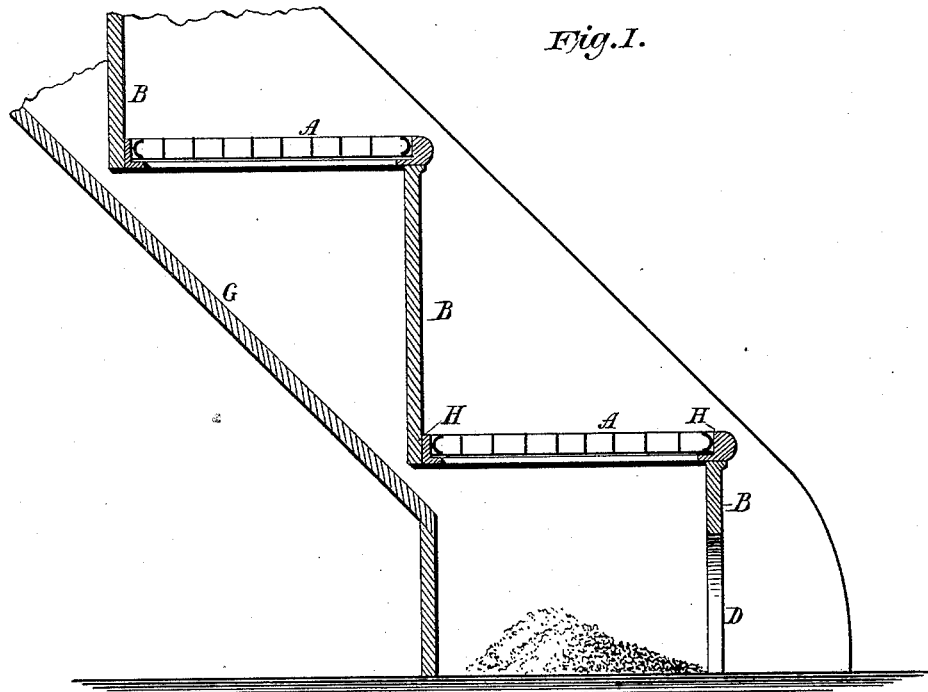
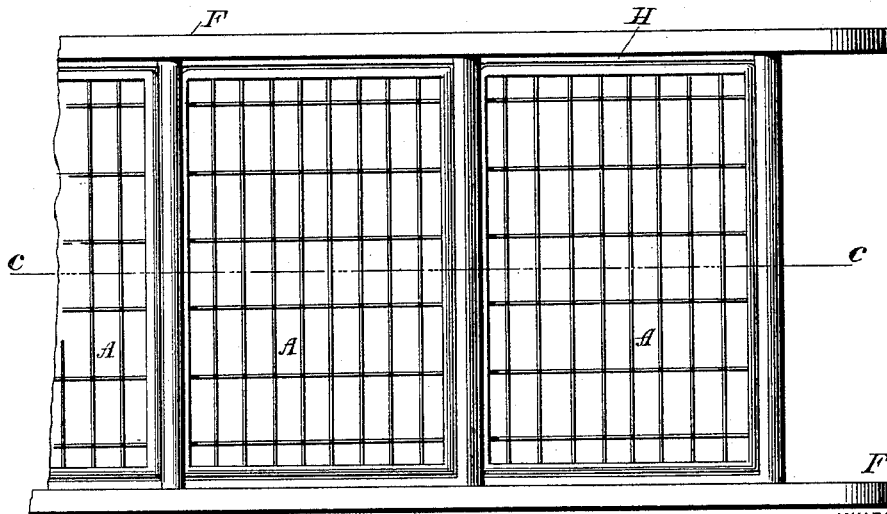


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM C. SPELMAN, OF NEW YORK, N. Y., ASSIGNOR TO THE NEW YORK
STEEL MAT COMPANY, OF SAME PLACE.

STEPS OR STAIRCASE.

SPECIFICATION forming part of Letters Patent No. 419,228, dated January 14, 1890.

Application filed October 30, 1889. Serial No. 323,631. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. SPELMAN, a resident of New York, county and State of New York, have invented new and useful
5 Improvements in Steps or Staircases, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

My invention relates to steps or stairways,
10 and has for its object the providing of a stairway with means for keeping it clean, as hereinafter specified.

My invention is illustrated by the drawings, in which similar letters in the several
15 views designate similar parts.

Figure 1 is a cross-sectional view of my improved staircase, taken through lines *c c*, Fig. 2. Fig. 2 is a plan view of the improved staircase.

20 A represents a perforated or cellular metallic mat—such, for example, as the mat known as the “Rochester mat,” described in Patent No. 377,580.

B represents a riser of the staircase; F F, the support or walls of the staircase; G, the
25 back board; H, the open-work tread, and D any suitable opening in the lowermost riser.

To accomplish my invention, I form the treads or upper portion of a staircase in skeleton form—that is to say, there is an open
30 space or frame-work where the tread generally is, and into this open space or frame-work is fitted an open-work metallic mat—such, for example, as the mat known as the
35 “Rochester mat.” This mat is held in the frame, as shown in the drawings, and can be inserted and removed from the frame-work of the tread at pleasure. The mat is formed of cross-bars of steel, iron, or other metal, and
40 affords a firm hold to the feet and allows the

dirt and débris to pass through it and drop to the ground or floor. An inclined back board G is placed back of the staircase to catch the dirt and débris from a series of the mats and chute it to the space beneath the
45 lowermost step, from which it may be suitably removed through the opening D. The staircase may be spiral or in any other form, and the frame of the staircase may be held together and secured to the supporting-walls
50 F F in any suitable way. The “treads” are to be formed with supports or bearings around the frame to hold the mat, and these supports or bearings may be cast with the frame-work of the tread, if of metal, or bolted, nailed, or
55 otherwise secured to it.

Besides preventing the feet from slipping in descending or ascending the staircase, my improved tread allows the dirt, ice, snow, or any débris to pass through it and drop to the
60 ground. The “back board” can be made of metal, wood, or stone.

My improved tread is especially adapted to stairways used out of doors—such as elevated-railway staircases, &c.—and from its
65 construction is light and exceedingly durable.

Having fully described my invention, what I desire to claim, and secure by Letters Patent, is—

The combination of the supports or walls
70 F F, risers B B, open treads H H, and open-work mats A A in the treads, with the inclined back board G, forming a chute behind the series of risers and steps, which chute has the lower opening D, substantially as
75 herein shown and described.

WILLIAM C. SPELMAN.

Witnesses:

HARRY M. TURK,
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