

(No Model.)

F. E. HEINIG & M. LINDENTHAL.
STAIR ROD.

No. 252,942.

Patented Jan. 31, 1882.

Fig 1.

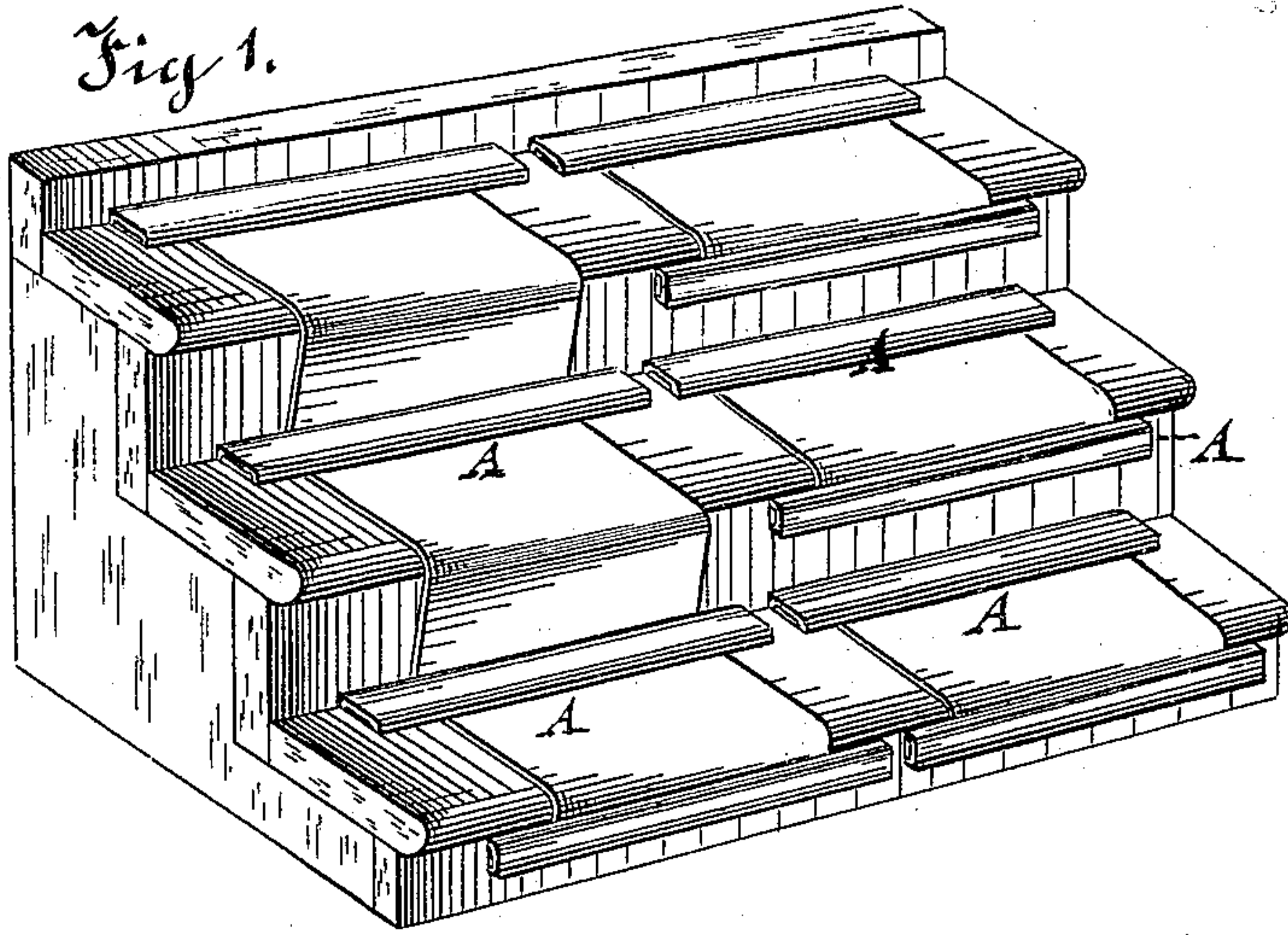


Fig 2.

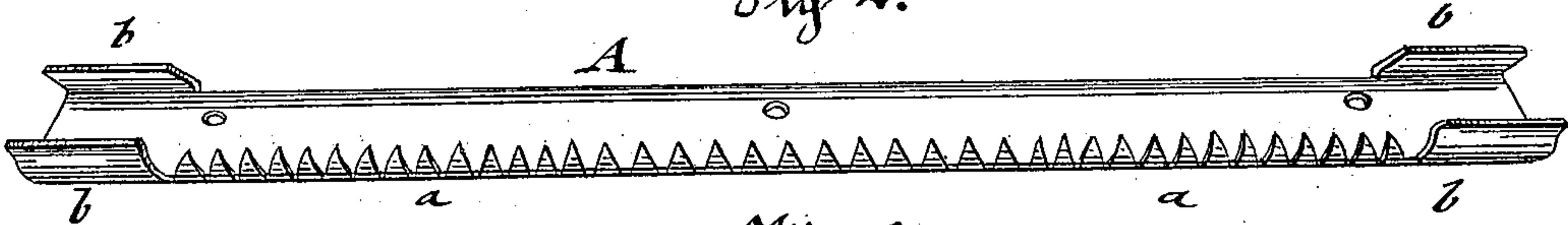


Fig 3.

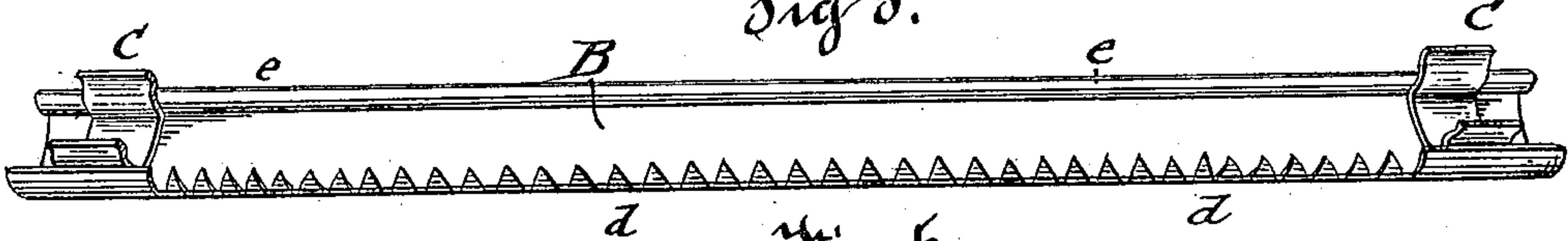


Fig 5.

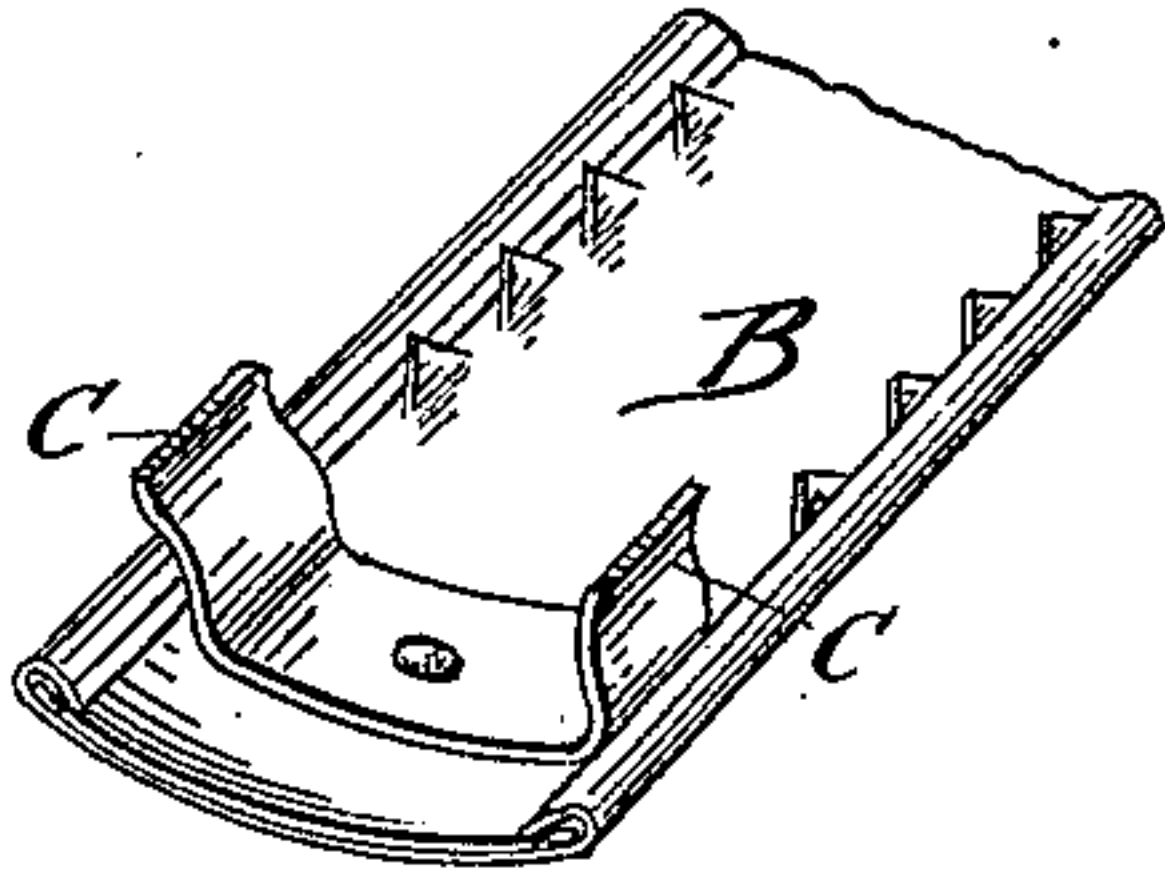
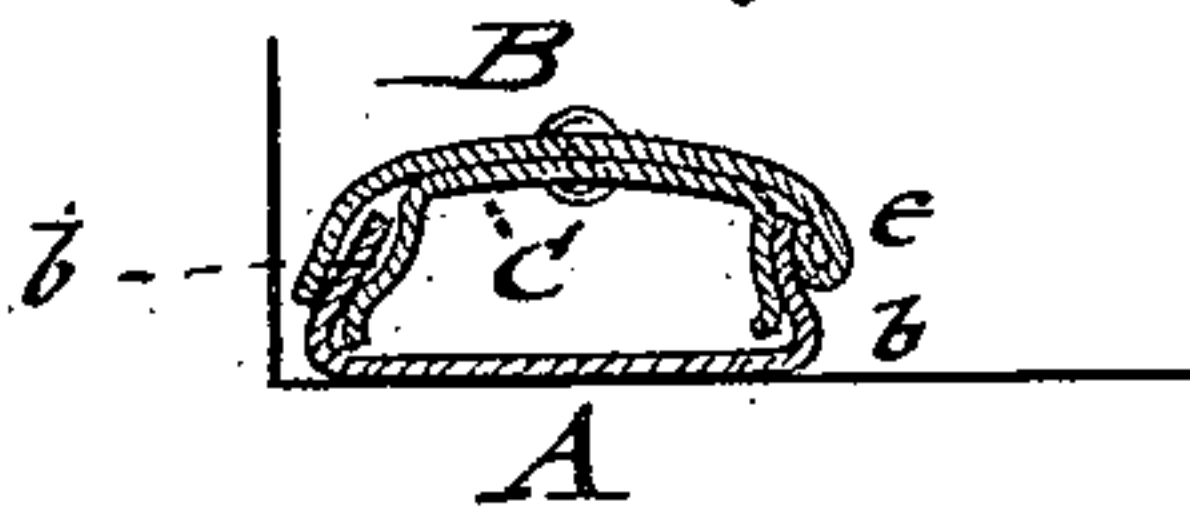


Fig 4.



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STAIR-ROD.

SPECIFICATION forming part of Letters Patent No. 252,942, dated January 31, 1882.

Application filed December 9, 1881. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK E. HEINIG, of Louisville, in the county of Jefferson and State of Kentucky, and MAX LINDENTHAL, of the city, county, and State of New York, have invented certain new and useful Improvements in Stair-Rods, of which the following is a specification.

This invention relates to an improved stair-rod, which is attached to the step in such a manner that it resists the strain exerted thereon by the stair-carpet while in use, but which admits the ready removal of the rod when taking up the carpet and lifting it away from the step.

The invention consists of a pair of clamping or retaining plates, made of any material desired, one of which is to be attached to the step, and one or both of which are provided with teeth to engage the carpet caught between them, said plates being secured by spring-clasps and fasteners at the ends thereof.

In the accompanying drawings, Figure 1 represents a perspective view of our improved stair-rod, shown as applied for use. Figs. 2 and 3 are detail views of the base and top plate of the stair-rod as detached from each other. Fig. 4 is a vertical transverse section of the rod through the fastening end-clasp. Fig. 5 is a perspective view of a modified construction of the same.

Similar letters of reference indicate corresponding parts.

A in the drawings represents the base-plate of our improved stair-rod, which plate is permanently attached to the step of the stairs, close to the riser thereof, and is provided along one edge with upwardly-bent teeth *a*, which take hold of the carpet, and at each end with bent-up flanges *b*, as shown clearly in Fig. 2.

B is the upper retaining-plate, adapted to fit over the base-plate, and to be secured thereto by means of spring clasps or catches C C, which engage the flanges *b b* of the base-plate A, as shown in Fig. 4. This upper retaining-plate, B, is also provided along one edge with projecting teeth *d d*, either continuously along the entire length thereof or at intervals thereon, and is formed with an inwardly-bent front

edge, *e*, as shown in Fig. 3. When the top plate, B, is placed in position upon the base-plate A, with the stair-carpet placed between them, the teeth of the base and top plates "bite" into the carpet and secure it firmly, so as to resist any vertical or horizontal strain exerted thereon.

When it is desired to take up the carpet the top plate, B, of the lowermost stair-rod is removed, and then the carpet is taken off and lifted away from the steps, by which operation the top plates of each step are successively lifted out of their base-plates, and thus the carpet may be quickly removed.

Instead of forming both plates with serrated edges, as described, one plate alone may be provided with bent-up teeth along both edges, the teeth extending along a part of or along the whole length of the plate, as desired.

A modification from our invention is shown in Fig. 5, in which the base-plate A is dispensed with and a single stair-rod plate, B, used, which is provided with bent-up teeth along both edges. This single plate B is provided with spring-clasps C at the ends, which are secured to fasteners attached to the steps of the stairs, they corresponding substantially with the ends *b b* of the plate A, the spring-clasps engaging the fasteners in the same manner as is shown in Fig. 4.

Our improved stair-rod may also be applied to the riser below the step, as shown in Fig. 1, in connection with small pieces of carpet covering each step separately, such an arrangement having many advantages—as, for instance, the cleaning of each step separately with great ease and quickness, economy of carpet material, and facility for removal. In case of wear, one or more steps can be taken up and replaced by new ones, saving the expenses of a whole carpet, and in case of removal it permits the use of the same piece of carpet upon other stairs independent of a difference in the height of the riser.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of a stair-rod or top plate and of a fixed base-plate with retaining

devices connecting them at the ends, one or both of said plates being provided with retaining-teeth along the edges for holding the carpet, substantially as set forth.

- 5 2. The combination of a base plate, A, having upwardly-projecting teeth *a* and retaining end flanges, *b b*, with a top plate, B, having downwardly-extending teeth *d* and spring-clasps C at the ends, by which the top plate
10 may be sprung into the flanges of the base-plate, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

FREDERICK E. HEINIG.
MAX LINDENTHAL.

Witnesses:

PAUL GOEPEL,
CARL KARP.