No. 854,864. PATENTED MAY 28, 1907.

W. M. ABBOTT.

STAIR CARPET FASTENER.

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Fig. 1.

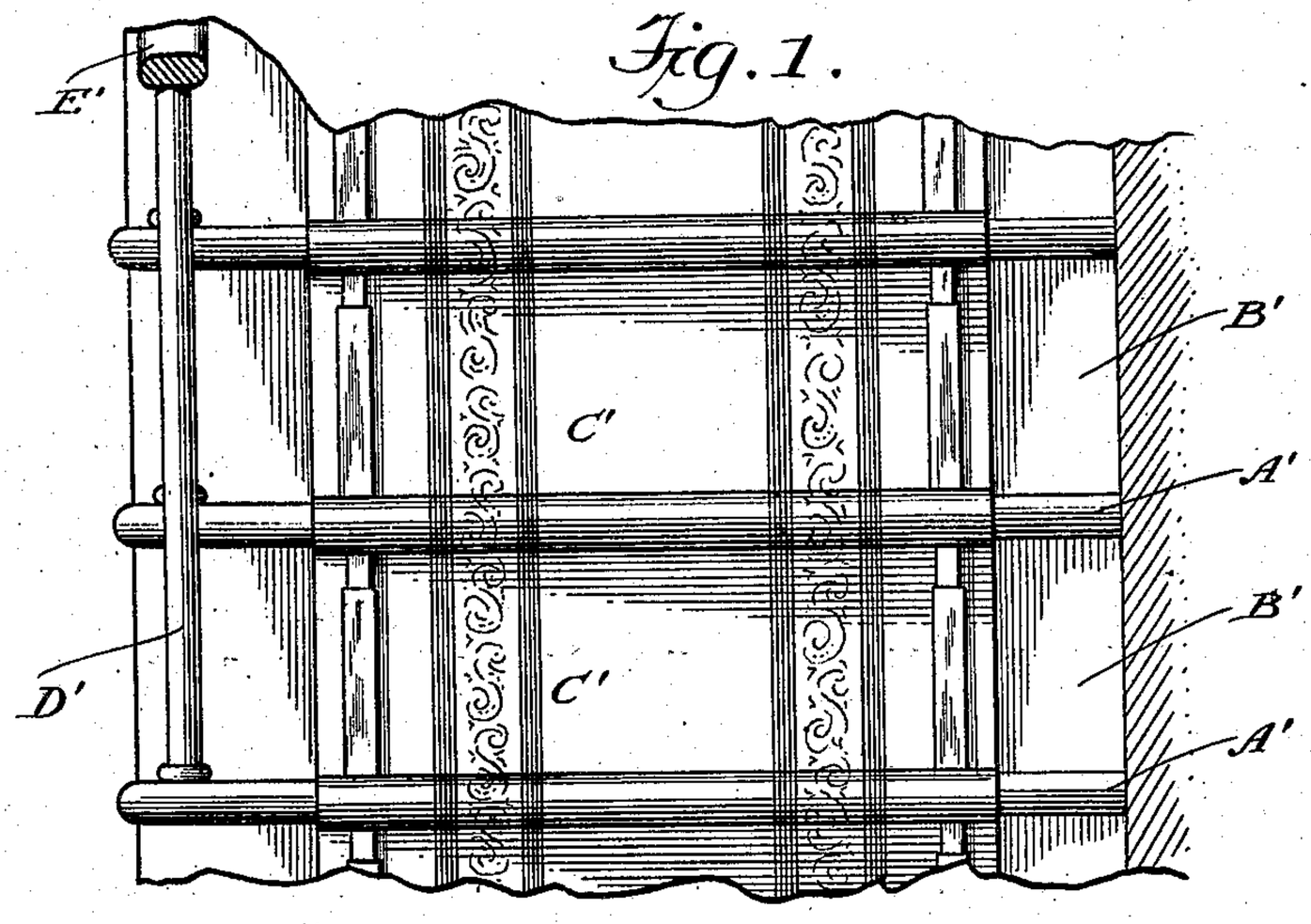
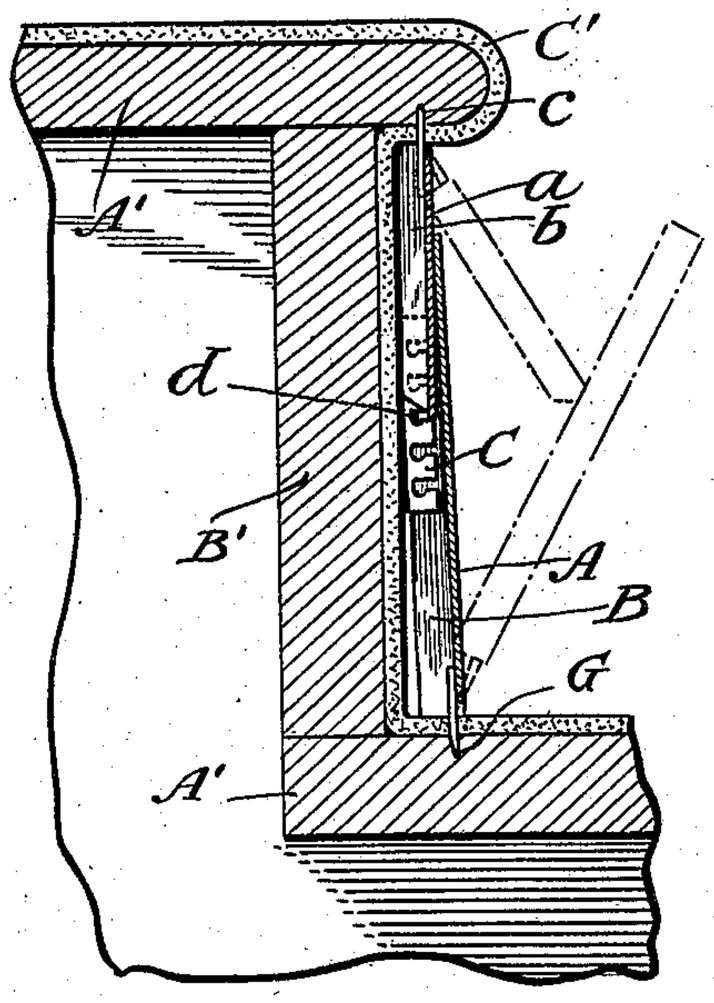


Fig. 2.



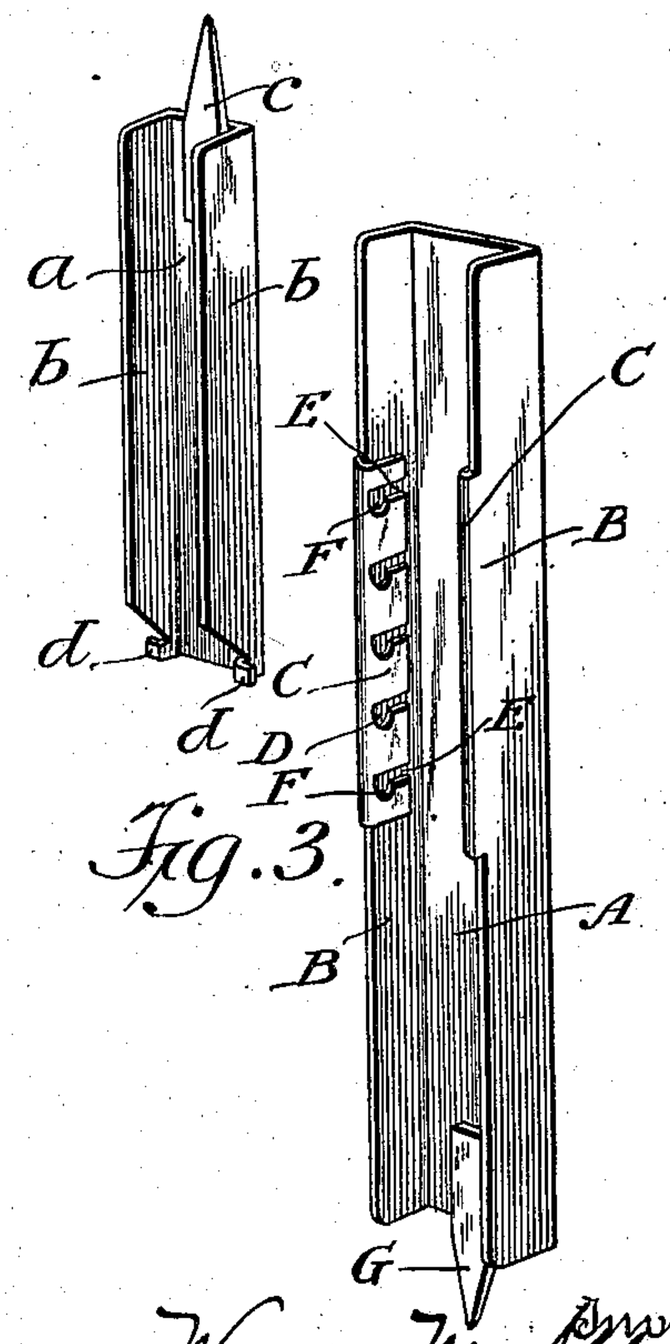


Fig. 3.

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STAIR-CARPET FASTENER.

No. 854,864. Specification of Letters Patent. Patented May 28, 1907.

Application filed August 25, 1905. Renewed March 14, 1907. Serial No. 362,411.

To all whom it may concern:

Be it known that I, WARREN M. ABBOTT, a citizen of the United States, and a resident in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Stair-Carpet Fasteners, of which the following is a specification, reference being had to the accompanying drawings, in which

Figure 1 illustrates an elevation of a section of stairway with carpet thereon held in place by my improved device; Fig. 2 illustrates a vertical sectional view of two treads, with interposed riser, in a stairway, showing carpet held thereto by my device; Fig. 3 illustrates a perspective view of the parts composing my device dismembered.

The purpose of my invention is to provide a device whereby the carpet, or other covering for stairways, may be quickly and easily laid upon the stairway and held firmly in place and readily removed therefrom, without the employment of tacks, rosettes, rods, or other devices heretofore commonly used, some of which are difficult and inconvenient to apply and others expensive.

The device embodies two parts, each of which are strong, simple and economical in construction and are, or may be integral by themselves, so that displacement of any part is impossible. These two parts are adjustable relative to each other, whereby they may be in a moment adapted to stairways in which the risers are of different height or the thickness of the treads different.

As shown in Fig. 3, the device comprises two parts. The first is the part which I call the casing, the second, the part which I call the extension piece. The casing is shown at A. It comprises a piece of metal, preferably bronze, brass, or equivalent material, the edges of which are bent in such manner as to form two side flanges B, B, each of which has a supplemental flange C, which are bent over inwardly into the center of the casing, in other words into the channel formed by the two side flanges B, B. These parts C, C, have slots D, D, cut through them, which are, or may be of the so-called bayonet joint form, that is to say, a comparatively narrow opening or notch E, which extends to the edge of the part C terminates in a somewhat enlarged recess or opening F. There are a series of these bayonet joint recesses or slots in each of the turned over parts C, C, and they are spaced somewhat closely together, so that all requisite adjustment can be secured.

A projection or point G, made sufficiently sharp to serve the purpose, is attached to and projects beyond the lower end of the casing A.

The extension piece *a* is, or may be in general construction substantially the same as the part A, that is to say, it has bent over flanges or side pieces *b*, *b*, an upwardly projecting point *c* and two laterally extending fulcra or trunnions *d*, *d*, at the lower end. This whole structure is made of such size that with the exception of the laterally projecting fulcra *d*, *d*, it will fit easily within the turned over edges C, C, of the casing A, so that the fulcra *d*, *d*, can be entered into any of the bayonet joint slots F, and be pivotally supported therein, so that the point *c* of the extension piece may be distanced from the point G of the casing as the height of the riser or the thickness of the tread of the stairway may require.

The operation of the device is well illustrated in Figs. 1 and 2, in which A′ illustrates the edges of the tread of the stairway and B′, B′, the risers thereof, and C′ the carpet thereon.

D′ is one of the baluster spindles and E′ the hand rail.

The carpet is first laid over the stairs and snugly adjusted to the steps in the usual manner. Thereupon the extension piece of my device is adjusted and pivotally connected to the casing as the height of the step may require. Thereupon the lower end of the casing is placed against the carpet near its edge and pressed back against the riser opposite it. The extension piece is then, while the device is flexed upon itself, as shown in dotted lines in Fig. 2, likewise placed against the carpet near its edge under the nosing of the next step above. Thereupon suitable pressure being applied to the parts in their then condition opposite the point of their pivotal connection, the parts will be pressed forwardly against the riser or rather against the carpet which covers the riser. It will be observed that pressure applied under these circumstances and in the manner stated will cause the device to act somewhat after the fashion of toggle joints in mechanics, so that the points *c* and G will be forced through the carpet and into the nosing of the step above and the tread of the step below respectively, and that the power will very greatly increase as the parts approach more and more a

straight line, so that the increased resistance of the points as they penetrate the wood will be readily overcome. The pivotal connection between the extension piece and the casing is somewhat eccentric to the axial line of the casing, so that when the parts are pressed fully back against the riser, they pass somewhat beyond the center, or in other words, somewhat beyond the point at which their axial lines are parallel. Consequently there is no tendency on the part of the parts to swing back again on the contrary, the greater the pressure exerted upon them the more securely they will hold.

It will of course be understood that two of my fastening devices are required at each step of the stairway, or at least two should preferably be used.

Among the advantages secured by me are the following: The extreme simplicity of the device, the ease with which it can be applied, no skill being required in so doing, the rapidity with which the work of laying the stair carpet as well as its removal, may be effected, the handsome appearance of the device and the security with which the carpet is held; and a special feature is the fact that the imperforate casing secretes all of the mechanical parts, that is to say, the trunnions on the extension piece and the bayonet slots in the inturned parts C of the casing in which the trunnions operate, are not observable from the exterior, on the contrary, the device presents a smooth, finished and handsome appearance, which is exceedingly desirable in a structure of this character and there is, moreover, nothing upon the exterior surface which will catch and tear the cloth, duster, or other utensil used in cleaning the stairs, or the clothing of ladies ascending or descending them.

It will be obvious to those who are familiar with this art that alterations may be made in the device without departing from the essentials thereof. I therefore do not limit myself to the details shown and described.

I claim.

1. In a stair carpet fastener the combination of a hollow casing, the sides whereof are provided with inturned and slotted plates, and an extension piece adapted to enter between the inturned plates and provided with laterally projecting trunnions which engage in the slots of said plates, the casing and extension piece being each provided with a longitudinally extending point.

2. In a stair carpet fastener the combination of a hollow casing, the sides whereof are provided with inturned and bayonet slotted plates, the enlarged end of the slots being eccentric to the axial line of the casing, an extension piece adapted to enter between the inturned plates and provided with laterally projecting trunnions adapted to enter the slots in the inturned plates and rest in the enlarged terminal openings thereof, the casing and the extension piece being each provided with a longitudinally extending point.

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

WARREN M. ABBOTT.

Witnesses:
F. M. Donstack,
Philip F. Feinberg.