

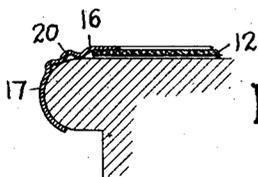
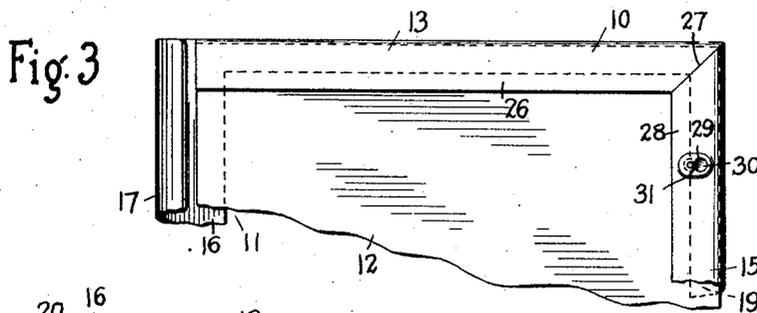
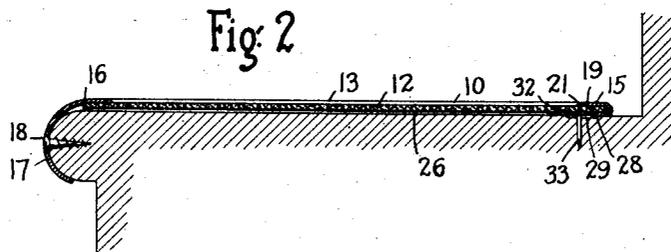
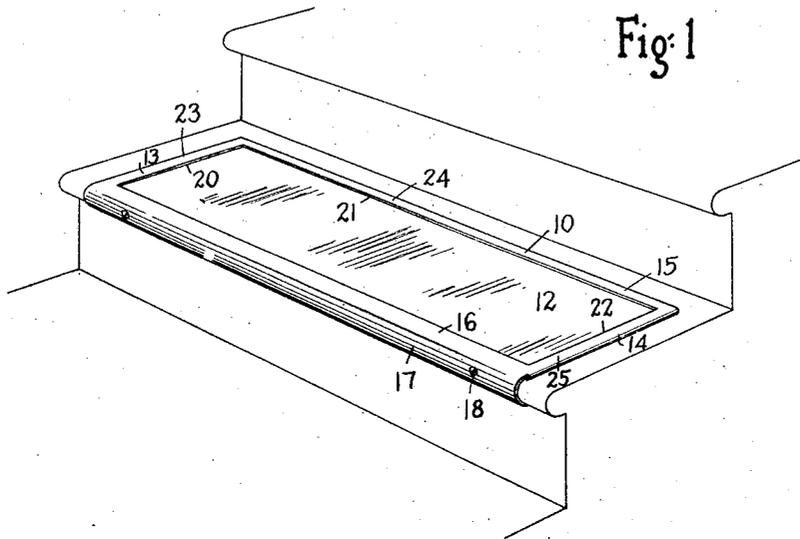
March 29, 1927.

H. ROSENBLUM ET AL

1,622,739

STAIR PLATE

Filed July 10, 1926



INVENTORS
Harry Rosenblum & Murray Schneider
BY
Harry Jacobson
ATTORNEY

UNITED STATES PATENT OFFICE.

HARRY ROSENBLUM AND MURRAY SCHNEIDER, OF NEW YORK, N. Y.

STAIR PLATE.

Application filed July 10, 1926. Serial No. 121,518.

This invention relates to stair plates and contemplates the provision of an individual frame for suitably enclosing and for fastening a protective covering to the tread of a step. Our invention provides an economical and easily adjusted structure, readily securable to the horizontal surface of a step and presenting a good appearance, for maintaining a sheet of suitable floor surfacing or wearing material in operative position on the tread.

The various objects of our invention will be clear from the description which follows and from the drawings, in which,

Fig. 1 is a perspective view of a portion of a stairway showing our improved stair plate secured in place.

Fig. 2 is a vertical cross section of the same.

Fig. 3 is a bottom view of one end of our improved plate, and

Fig. 4 is a vertical section of a modified form of the nosing at the front of the plate.

In the illustrated embodiment of our invention which shows one of the practical applications thereof, we prefer to provide a frame closed on three sides and designated generally by the numeral 10 for enclosing and protecting the edges of a sheet 12 of floor covering material. The frame is preferably made of sheet metal and has a large central opening 11 therein through which the sheet is exposed. The shorter edges of the frame which we will call the sides 13 and 14, and the longer rear edge which we will call the rear 15 are made preferably as narrow as possible consistent with their function, which is to form a protective pocket 19 in which the corresponding edges of the sheet 12 are securely clamped, so as to present as good an appearance as is possible. Each of said sides and the rear may be made of pieces separate and distinct from each other if desired, and then suitably joined together near the corners of the frame, or the entire frame may be made of a single sheet of material as illustrated. In either case, said sides and rear each consists of an edge intended to cover and protect an edge of the sheet 12, an upper horizontal flange of little width bent from the upper part of said edge, a lower flange preferably slightly wider than the upper flange and bent from the lower part of said edge which is continuous and integral with, and joins said flanges together. The inner edges

20, 21 and 22 of the upper flanges 23, 24 and 25 respectively, arranged about the opening 11, are suitably bevelled so that the upper surface of the plate is substantially smooth and presents no objectionable projections on which a person using the stairway might trip. The front 16 of the frame 10 is not bent or folded over but preferably consists of a single sheet-like portion integral, continuous and flush with the upper flanges 23 and 25 whereby possibility of tripping on the smooth surface thus presented is eliminated.

At the termination of and integral with the front 16 is the nosing 17, which is suitably curved to fit the front edge of the stair tread and which is provided with suitable holes through which the screws 18 may be passed for securing the nosing in the front of the step. As shown in Fig. 4, the front 16 may be corrugated for part or all of its length as at 20 to act as a scraper for removing mud and dirt from the shoes of persons using the stairway.

The lower flanges 26 of the sides 13 and 14 are bent about the edges of and securely clamped or forced on to the under surface of the sheet 12 which may be of linoleum, rubber matting, cork board, carpet or other suitable floor covering. The rear ends 27 of the flanges 26 are preferably suitably mitred at the juncture thereof with the ends of the under flange 28 of the rear 15, which may be similarly mitred as shown.

Said flange 28 is provided with perforations 29 each having an enlarged circular portion 30 and an elongated slotted portion 31. The head 32 of a nail is intended to be inserted through the enlarged opening 30 through which it may be readily passed into contact with the under surface of the sheet, and then the entire nail moved forwardly so that the head 32 is arranged at the front end of the slot, the head pressed between the sheet 12 and the flange 28, and the shank 33 projecting through the end of said slot.

It will be noted that by arranging the fastening nails in the manner just described, it becomes unnecessary to drive nails through the frame or through the sheet 12. This results in several advantages including the hiding of the unsightly nails from view, and the elimination of nail heads from the top of the plate. Such nail heads when driven into or arranged underneath the covering material are objectionable for

the reason that they do not wear at the same rate as the covering material and tend to raise ugly and dangerous lumps or projections in the plate. With our improved arrangement, the nails are not only hidden but also prevent the formation of such lumps. However, to insure an underfaced smooth upper surface on the sheet 12 at all times, free from injury or distortion, we prefer to depress the material about the openings 29 slightly so that the top of the head 32 of the nail is flush with the under surface of said sheet. The flanges 26 terminate preferably at a point rearwardly of and in spaced relation to the nosing 17 in order to enable the nosing to fit the step throughout the entire length of said nosing. It will be understood that the length of the frame may be made considerably less than the length of the step if desired, and that said frame may be made up in various predetermined sizes adapted to leave an uncovered margin about the sides and rear of the step.

To fasten our improved plate in place the nosing is arranged in contact with the front edge of the step and pressed there against while the rear edge 15 is somewhat raised. Now, while maintaining the pressure on the nosing, the rear 15 is lowered into position, a hammer blow on the rear directly over each of the nail heads 32 driving the nails into the step. The screws 18 are then driven into place, whereby the entire plate is secured in position with the fastening nails entirely hidden.

It will be seen that we have provided a structure for protecting the stair tread which is quickly fastened in place, which can be economically manufactured in a standard size to fit any step and which is durable and of good appearance. Neither dirt nor dust can work their way between the various flanges of the frame and the sheet 10 and into the pockets 19 because of the tight fit of the bevelled edges 20, 21 and 22 against the sheet, whereby the plate may be readily maintained in a clean and sanitary condition. It will further be understood that various changes may be made in the structure shown and described, such as in the proportions of the parts, the use of separate pieces suitably joined together instead of a single piece for the frame, changes in the fastening means and other changes which are contemplated but not described in detail, without departing from the spirit and scope of this invention and the range of equivalents afforded by the appended claims.

We claim:

1. In a stair plate, a rectangular sheet of floor covering material, a frame enclosing three of the edges of said sheet and the peripheral portions of the upper and lower surfaces of said sheet adjacent to said edges,

a nosing continuous and integral with the upper surface of said frame, and hidden means for securing said frame to a stair tread.

2. A stair plate including a sheet of floor covering material, a frame covering the edges of said sheet, and a depressed perforated portion on said frame for receiving fastening means and for hiding said fastening means from view.

3. A stair plate including a flat sheet of stiff floor covering material and a perforated frame completely enclosing three of the edges of said sheet and a nosing integral with and extending completely across said frame between the sides thereof, and hiding the fourth edge, and of sufficient height to cover the front edge of a stair tread.

4. In a stair plate, a flat sheet of stiff floor covering material, and means for enclosing an edge of said sheet and for excluding dirt, comprising a frame, three sides of said frame having a substantially upright edge portion protecting the edge of said sheet, an upper flange bent from said edge portion and pressed into contact with the upper surface of the sheet, and a lower flange in spaced relation, and parallel to said upper flange and pressed into contact with the under surface of said sheet, a flat fourth side on said frame in the plane of the upper flanges of said frame and a curved nosing integral and continuous with said flat side of the frame projecting downwardly below the lower flanges for covering the front edge of a stair tread.

5. In a stair plate, a sheet of floor covering material, a frame enclosing a portion of both faces and the edges of said sheet and adapted to be secured to a step for maintaining said sheet in place on the step and a nosing continuous with the upper surface of said frame and extending below the lower surface of said frame a sufficient distance to cover the front edge of the step.

6. In a stair plate, a frame, substantially U-shaped in cross section, and a nosing continuous with the upper surface of said frame and extending downwardly and arcuately from said surface considerably below the under surface of said frame.

7. In a stair plate, a sheet of covering material a frame tightly enclosing said sheet and forming a unit therewith, and a perforated member forming the rear of said frame, the perforations in said member being invisible in the operative position of said plate and a perforated front nosing integral with the upper face of said frame and extending downwardly and arcuately from said upper face.

8. In a stair plate, a sheet of covering material, a one-piece frame substantially U-shaped in cross section having perforations therein and secured about said sheet where-

by said frame and said sheet may be handled as a unit and a front curved nosing of the same length as and integral with said frame of sufficient depth below said frame to cover the front edge of a stair tread.

9. In a stair plate, a frame, a rear member on said frame consisting of an upper and a lower part and having perforations therein, a sheet secured in said frame, said perforations having an enlarged circular portion and a communicating slot and extending through the lower part of said rear member, and fastening means adapted to be passed through said perforations and to be hidden by the upper part of said member.

10. In a stair plate, a one-piece frame including three sides U-shaped in cross section, a flat front, a front nosing adapted to

cover the front edge of a stair tread, integral with said front and extending below said frame, and a flat sheet of floor covering material secured in said frame, movable therewith and having its front edge covered by said nosing.

11. In a stair plate, a frame including a front nosing and a rear member having an upper flange, a lower perforated flange and an edge portion joining said flanges, a sheet of floor covering material secured in and movable with said frame, the perforations in the lower flange of said rear member consisting of a circular opening and a slot communicating with said opening, and a depressed portion in said lower flange about said opening.

HARRY ROSENBLUM.
MURRAY SCHNEIDER.