July 6, 1954 H. MOLOW 2,683,022

STAIRWAY BANISTER

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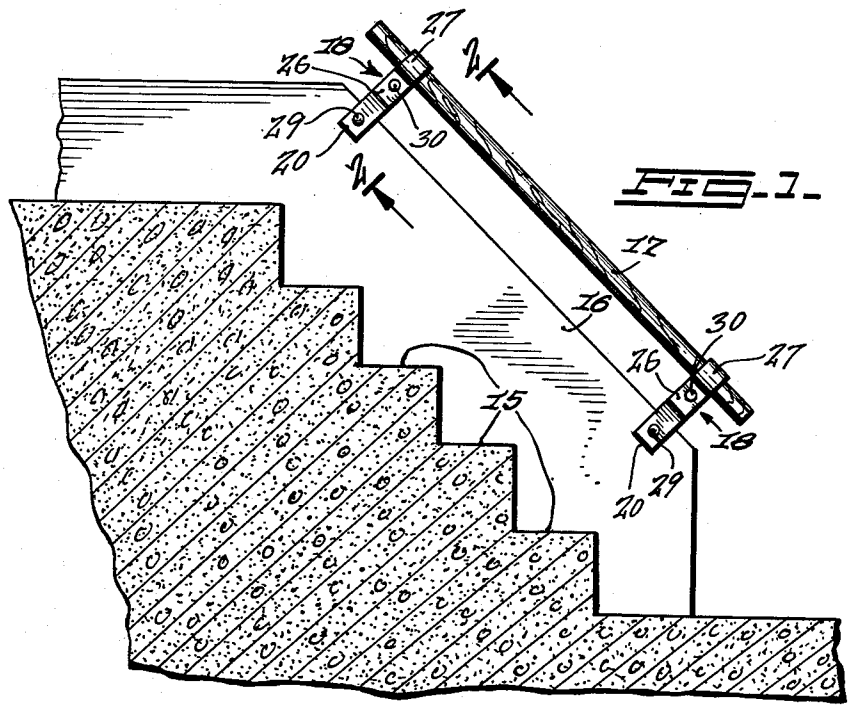


FIG. 1.



FIG. 3.

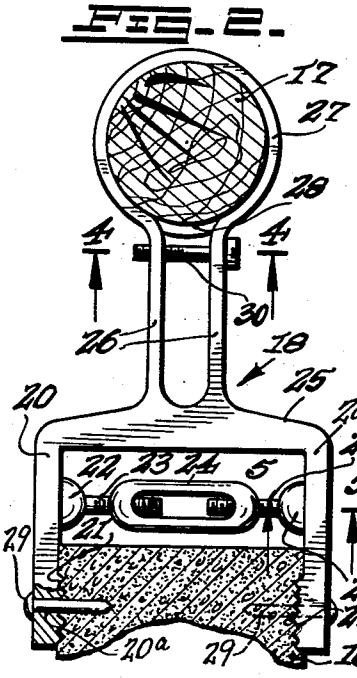


FIG. 2.

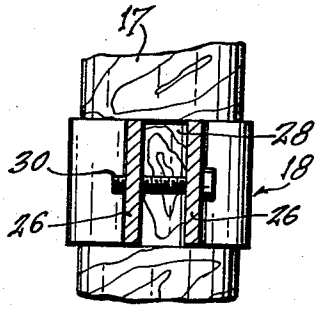


FIG. 4.

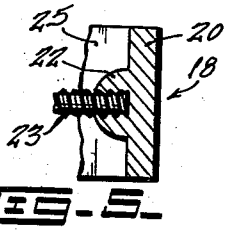


FIG. 5.

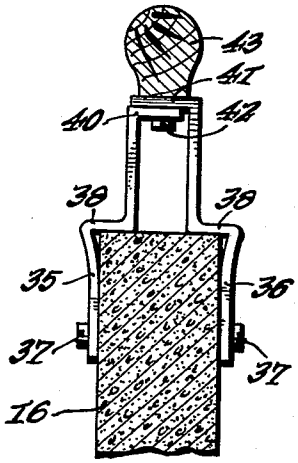


FIG. 7.

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STAIRWAY BANISTER

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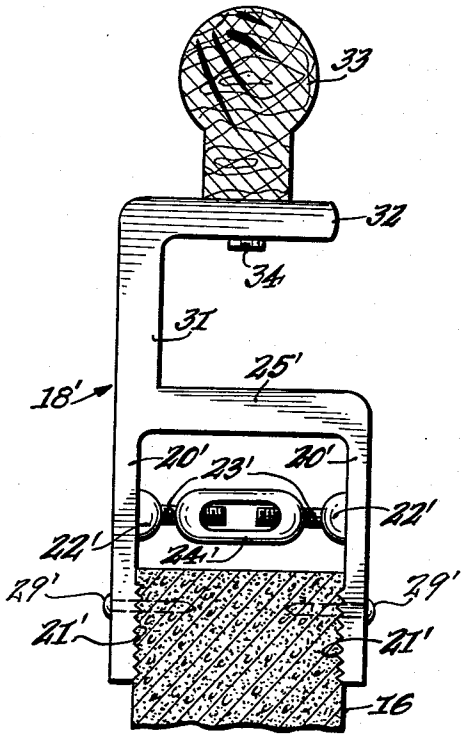


FIG. 6.

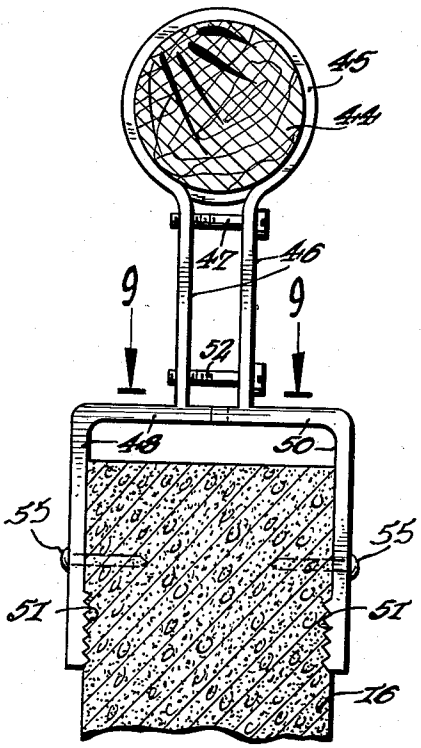


FIG. 8.

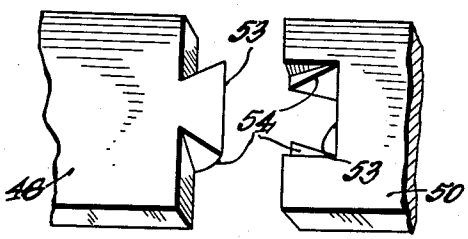


FIG. 10.

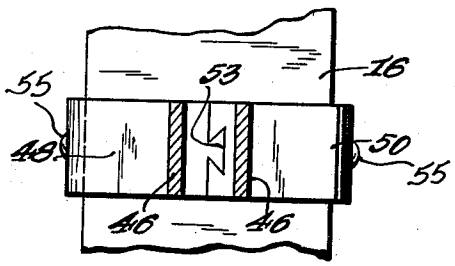


FIG. 9.

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STAIRWAY BANISTER

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Application August 2, 1950, Serial No. 177,151

3 Claims. (Cl. 256—19)

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This invention relates to new and useful improvements in stairway banisters and the means for mounting the same.

Many homes are provided with a brick or masonry stoop which consists of a short flight of stairs with a low retaining wall at either side thereof, said retaining wall being inclined at the same angle as the stairway. Because of its small height the said retaining wall is useless as a hand support or banister.

One object of the invention is the provision of a banister for, and means for mounting the banister on, each said retaining wall.

Another object of the invention is to construct said mounting means so that the same is readily securable on a said wall.

Another object of the invention is to construct the mounting means and the banister so that the latter is removable from the former without removing the former from the wall.

Still another object of the invention is the provision of a lock for holding the mounting means secured on the wall.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a sectional view of a masonry stoop such as described above, with a banister of the invention secured on the retaining wall thereof.

Fig. 2 is an enlarged sectional view on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary view of the banister pole.

Fig. 4 is a sectional view on line 4—4 of Fig. 2.

Fig. 5 is a fragmentary sectional view on line 5—5 of Fig. 2.

Fig. 6 is a sectional view similar to Fig. 2 but illustrates a modified banister and supporting means.

Fig. 7 is a sectional view similar to Fig. 2 and illustrates another form of mounting means.

Fig. 8 is a sectional view similar to Fig. 2 but illustrates a further modification of the mounting means.

Fig. 9 is a fragmentary sectional view on line 9—9 of Fig. 8.

Fig. 10 is enlarged fragmentary perspective view of locking means shown also in Fig. 9.

Referring to Fig. 1, the reference numeral 15 indicates a flight of concrete steps having on either side thereof a low concrete retaining wall

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16 inclined at the same angle as the flight of steps. It will be noted that the height of the illustrated retaining wall 16 is insufficient to adapt the same to be utilized as a hand support or banister or the like.

According to the invention a wooden banister bar 17 is secured on and spaced above each wall 16 by a pair of metal brackets 18. A bracket 18 is further illustrated in Figs. 2, 4 and 5 and comprises a yoke whose arms 20 embrace the upper portion of wall 16, said arms being provided with serrations or teeth 21 to grip the side faces of the wall. In order to secure the arms 20 tightly against the wall 16, the inner face of each arm is provided, above the wall, with a boss 22 into which is fixedly mounted the end of a headless bolt 23. At their inner ends the bolts 23 are formed with threads of opposite hand threaded into a turn buckle 24. The construction is such that by the operation of the turn buckle 24 the arms 20 are compressed tightly against wall 16 with the teeth imbedded therein.

Projecting upward from the cross bar 25 of the said yoke are a pair of arms 26 which at their upper ends form a loop 27 which embraces the banister bar 17. In order to prevent endwise movement of the bar 17 the same is provided with an annular groove 28, see also Fig. 2, for each loop 27. The bar is fixedly held in the loops 27 by compressing the latter on the bar through the medium of a headed bolt 30 passed through one of the arms 26 and threaded into the other.

The arm 20 of the yoke, adjacent their free ends are formed with holes 20^a, see particularly the sectioned left-hand side of Fig. 2, and after the yoke has been secured in the desired adjusted position on the retaining wall 16, nails 29 are passed through the holes 20^a and hammered into the side of the wall. The nails 29 serve to retain the brackets 18 against any possible sliding movements along the length of the retaining wall 16 and serve to discourage pranksters and others from removing the banister by loosening the turn buckles 24.

It will be seen, therefore, that the bar 17 provides an effective banister for a wall 16 and is readily secured in place by means of the brackets 18.

A modified form of the invention is illustrated in Fig. 6 wherein like parts are given the same reference numerals as hereinabove with a prime added. In this form of the invention the cross bar 25′ of the wall embracing yoke of each bracket 18′ is surmounted at one end thereof by an arm 31 which at its upper end is bent horizontally above the cross bar 25′ as at 32. A

banister 33 having the usual keyhole shaped cross-sectional outline is secured atop the arms 32 of a plurality of brackets 18' by screws 34. In all other respects the brackets 18' are identical with the brackets 18 described above.

Another modified form of the invention is illustrated in Fig. 7 and comprises a pair of metal straps 35 and 36. Each of the straps 35 and 36 is secured at its lower end to a side face of a wall 16 by mortar screws 37 and arcs outwardly from the wall as it extends toward the upper edge of the latter. Even with the upper edge of wall 16 the straps 35 and 36 are bent inward and abut said upper edge at 38. From the said inwardly bent portions the straps 35 and 36 extend upward above the wall 16. The upper ends of the straps 35 and 36 are bent off laterally, the former at 40 and the latter at 41. The lateral bends 40 and 41 abut one another and are interconnected by a screw 42 which also secures a banister 43 atop the latter.

The construction is such that the banister 43 is effectively secured atop the wall 16 by a plurality of pairs of straps 35, 36. Further, a degree of resilience is imparted to the banister 43 by the arcing away from wall 16 of the straps 35 and 36 as the latter extend upward from the screws 37.

Another form of the invention is illustrated in Figs. 8, 9 and 10. In this form of the invention there is provided a banister bar 44 like in all respects to the bar 17 described above, said bar being secured at two or more points in a loop 45 at the upper ends of a pair of bars 46. The loop 45 is tightened on the bar 44 by a screw 47 passed through one bar 46 and threaded into the other. At their lower ends the bars 46 are formed integral with and are secured to a horizontal bar 49 or 50. At the outer end thereof the bars 48 and 50 are bent downward to embrace the wall 16 and the inner face of each is provided with teeth 51 to engage the face of the wall. In order to tighten the downward extensions of bars 48 and 50 against the wall 16, a screw 52 is passed through one of the bars 46 near its lower end and is threaded into the other.

In order to relieve the strain on screw 52 when the bars 48 and 50 have been tightened on the wall 16 thereby dovetail joint 53 is provided between the bars 48 and 50. As best shown in Fig. 10 the components of said joint are bevelled, as at 54 to permit the one to ride up on the other while the bars 48 and 50 are drawn together. When the edges of said bars meet, the components of the joint snap into engagement with one another. The screw 52 then can be backed up if desired.

The down turned ends of the bars 48 and 50 are formed with holes for the passage of nails 55 to be hammered into the sides of the wall 16 after the brackets have been mounted in position upon the wall by manipulation of the screws 52. The purpose of the nails 55 is the same as that described in connection with the nails 29 used in the first form of the present invention.

It will be seen, therefore, that this form of the invention is essentially the same as the first described form except that the joint 53 provides a safeguard against the loosening of the bracket on the wall.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A banister mountable on low retaining walls of a flight of steps which comprises a banister bar having an anuular groove near either end thereof, and a wall engaging bracket, each bracket comprising a yoke having side arms for engaging the sides of a wall and a cross bar, a boss formed on the inner face of each said arm, a headless bolt threaded into each said boss, a turn buckle into which the inner ends of said bolts are threaded to draw the said arms together, a pair of bars projecting upward from the cross bar of the yoke, and a loop at the upper ends of said bars secured on the groove in the banister bar.

2. A banister mountable on low retaining walls of a flight of steps which comprises a banister bar having an annular groove near either end thereof, and a wall engaging bracket, each bracket comprising a yoke having side arms for engaging the sides of a wall and a cross bar, teeth formed on the inner faces of the arms of the yoke to grip the sides of a wall, a boss formed on the inner face of each said arm, a headless bolt threaded into each said boss, a turn buckle into which the inner ends of said bolts are threaded to draw the said arms together, a pair of bars projecting upward from the cross bar of the yoke, and a loop at the upper ends of said bars secured on the groove in the banister bar.

3. A banister mountable on low retaining walls of a flight of steps which comprises a banister bar having an annular groove near either end thereof, and a wall engaging bracket, each bracket comprising a yoke having side arms for engaging the sides of a wall and a cross bar, teeth formed on the inner faces of the arms of the yoke to grip the sides of an engaged wall, a boss formed on the inner face of each said arm, a headless bolt threaded into each said boss, a turn buckle into which the inner ends of said bolts are threaded to draw the said arms together, a pair of bars projecting upward from the cross bar of the yoke, and a loop at the upper ends of said bars secured on the groove in the banister bar, and a bolt passed through one of the last said bars and threaded into the other to secure said loop on the banister bar.

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