

Nov. 27, 1951

R. E. TOMB

2,576,427

KNOCKDOWN PORCH AND STEP RAILING

Filed May 9, 1950

2 SHEETS—SHEET 1

Fig. 1

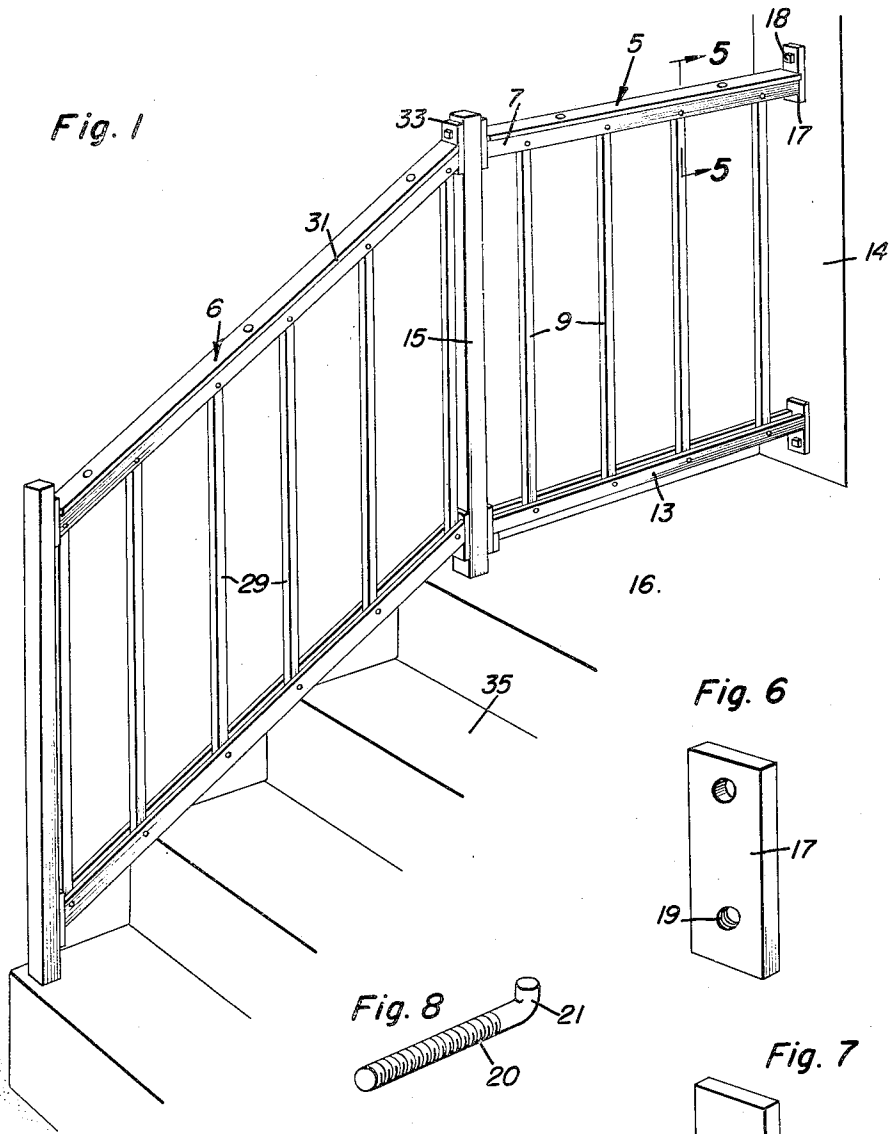


Fig. 6

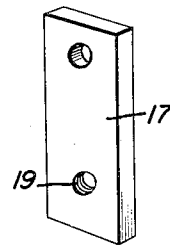


Fig. 7

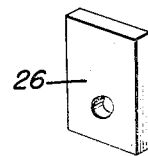


Fig. 8

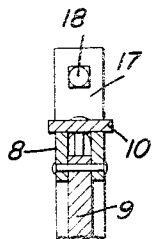
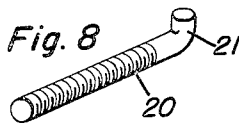


Fig. 5

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2 SHEETS—SHEET 2

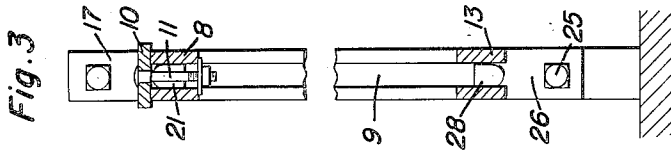


Fig. 3

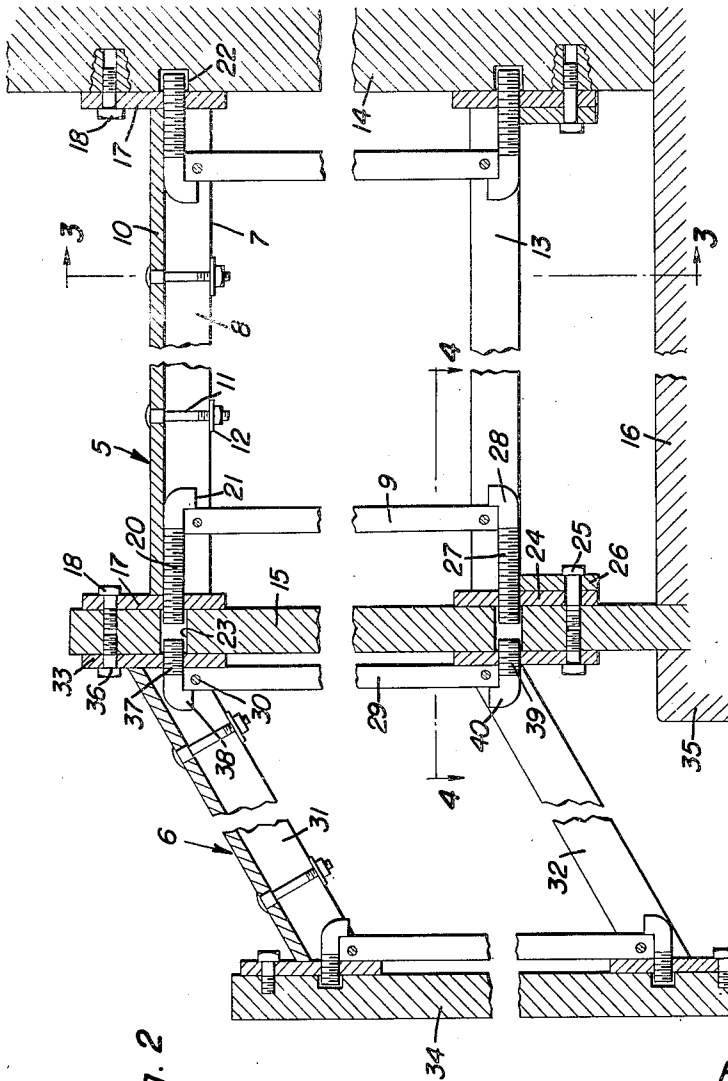


Fig. 2

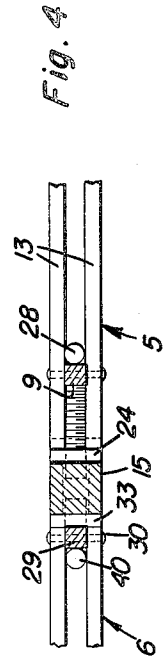


Fig. 4

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# UNITED STATES PATENT OFFICE

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## KNOCKDOWN PORCH AND STEP RAILING

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Application May 9, 1950, Serial No. 160,910

2 Claims. (Cl. 256-21)

1

The present invention relates to new and useful improvements in railings for porches, steps and other places where a guard rail is needed, and more particularly to a metal railing of knock-down construction which may be easily assembled on the site.

An important object of the invention is to provide a porch and step railing constructed of easily assembled sections and with novel fastening means for securing the railing sections to a post or other supporting structure.

Another object is to simplify the construction and erection of railings of this character and which, at the same time, presents an ornamental appearance and may be manufactured at relatively low cost.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view showing porch and step railings in erected position;

Figure 2 is an enlarged longitudinal sectional view thereof;

Figure 3 is a vertical transverse sectional view taken on a line 3-3 of Figure 2;

Figure 4 is a sectional view taken on a line 4-4 of Figure 2;

Figure 5 is a fragmentary transverse sectional view of the upper rail taken on a line 5-5 of Figure 1;

Figure 6 is an enlarged perspective view of one of the fastening plates for the ends of the rails;

Figure 7 is a similar view of the supporting plate for the lower rail; and

Figure 8 is a perspective view of one of the fastening screws for the rails.

Referring now to the drawings in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of my invention, the numeral 5 designates generally a porch railing and the numeral 6 is a step railing. Both the porch railing 5 and step railing 6 include an upper rail 7 composed of a pair of side rails 8 between which the upper ends of palings or pickets 9 are riveted or otherwise suitably secured. A cap rail 10 is bolted on top of the upper pair of side rails 8 by bolts and nuts 11 with washers 12 at the lower ends of the bolts bridging the lower edges of the pair of side rails.

The lower ends of palings or pickets 9 are riveted between a pair of lower side rails 13.

The railing section 5 is assembled at the factory

2

and sawed at the site to a proper length to fit between a building 14 and a metal post 15 embedded in a porch 16. Upper fastening plates 17 are secured to the side of the building and to the post by bolts 18, the plates also being formed with a threaded opening 19 to receive bolts 20 positioned under cap rail 10 and formed with a lateral head or lug 21 engaged behind the upper end of the end paling or picket 9.

Openings 19 in the plates 17 are lined with recesses 22 and 23 in the side of the building and in the post to receive the inner ends of bolts 20 when tightened in the plates.

Lower fastening plates 24 similar to plates 17 are also provided for the lower rails 13 and are secured to the side of the building and to the post by bolts 25 which also pass through supporting plates 26 positioned under the lower rails. Bolts 27 are threaded into plates 24 and are also formed at their outer ends with lateral heads or lugs 28 engaged behind the lower ends of the end palings or pickets. Bolts 27 are also supported by plates 26.

Step railing 6 is constructed identical to porch railing 5 and with the palings or pickets 29 sufficiently loose on the rivets 30 to pivot in order to incline the upper and lower rails 31 and 32 at the desired angle, while the palings or pickets remain perpendicular. The ends of the upper and lower rails are sawed at an angle in the vertical plane of the end palings or pickets so that the latter abut against the fastening plates 33 secured to porch post 15 and to a step post 34 at the bottom of the steps 35 by bolts 36.

Upper bolts 37 are threaded into plates 33 and with their lateral heads or lugs 38 engaged behind the upper ends of the end palings or pickets and lower bolts 39 are also threaded into the lower plates and with their lateral heads or lugs 40 engaged behind the lower ends of the palings or pickets.

The sections of the railing, indicated at 5 and 6, are assembled at the factory and sawed or cut at the site to suitable lengths, and in erecting the railing the upper bolts 20 and lower bolts 27 are placed in position behind the end paling or picket and the fastening plates 17 and 24 threaded onto the bolts by turning the plates until they are tight against the ends of the rails. The plates are then secured to the side of the building or to the post 15 by the bolts 18.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this

3

art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described as preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A metal railing structure of the class described comprising upper and lower rails each composed of a pair of spaced parallel bars, uprights having their ends secured between the bars of the upper and lower rails, and fasteners for the ends of the rails and comprising bolts positioned between the bars and projecting outwardly at the ends thereof, and lateral heads on the inner ends of the bolts engaged behind an adjacent upright.

2. A metal railing structure of the class de-

4

scribed comprising upper and lower rails each composed of a pair of spaced parallel bars, uprights having their ends secured between the bars of the upper and lower rails, a cap rail secured on top of the bars of the upper rail, bolts positioned between the bars of the rails and projecting outwardly beyond the ends thereof, lateral heads on the inner ends of the bolts engaged behind an adjacent upright, and an attaching plate threaded on the outer end of each bolt.

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#### REFERENCES CITED

The following references are of record in the file of this patent:

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