A. E. MATTHEWS.

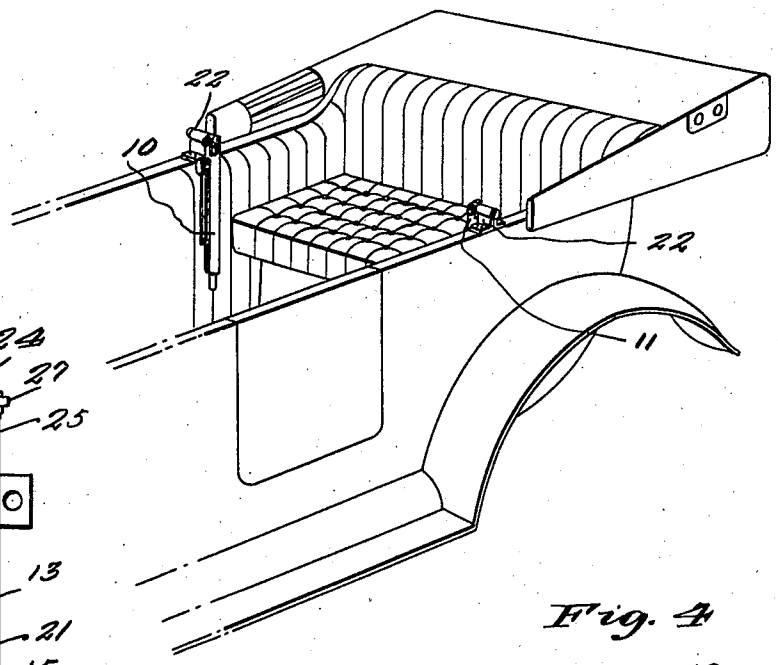
HANDRAIL.

APPLICATION FILED JULY 18, 1921.

1,405,309. Patented Jan. 31, 1922.

2 SHEETS—SHEET 1.

Fig. 1.



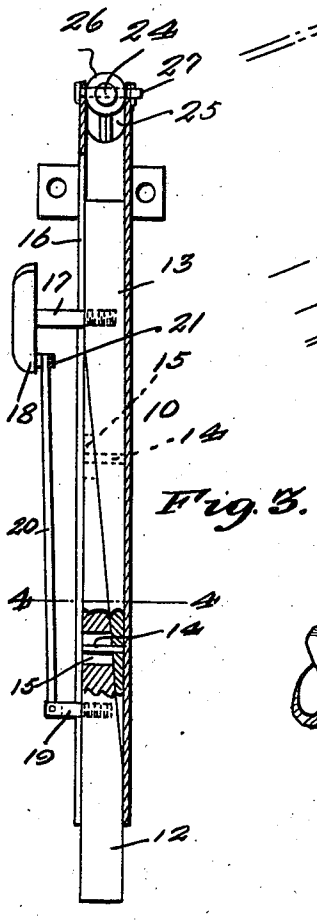
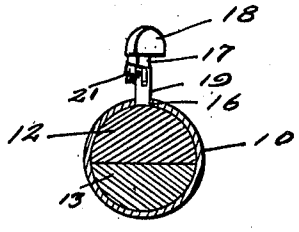


Fig. 3.

Fig. 4



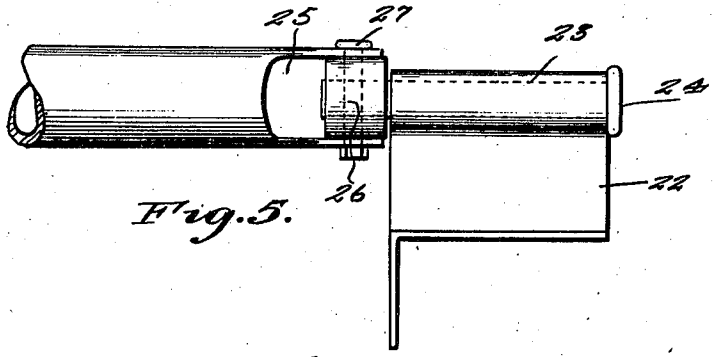


Fig. 5.

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WITNESSES

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HANDRAIL.

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2 SHEETS—SHEET 2.

Fig. 2.

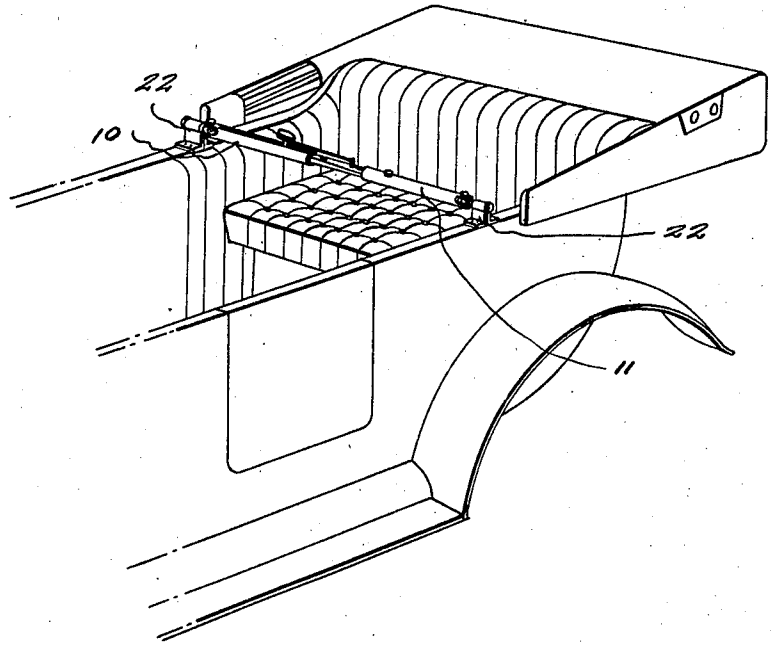


Fig. 6.

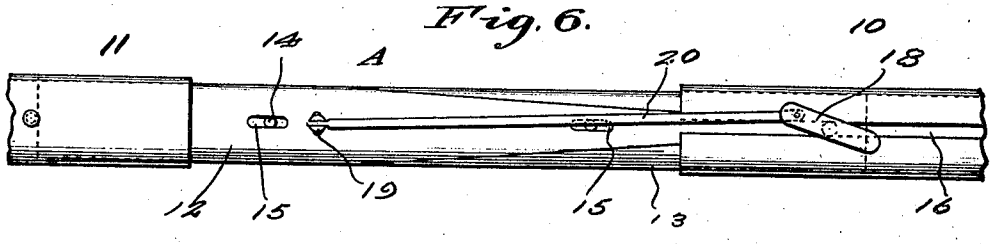
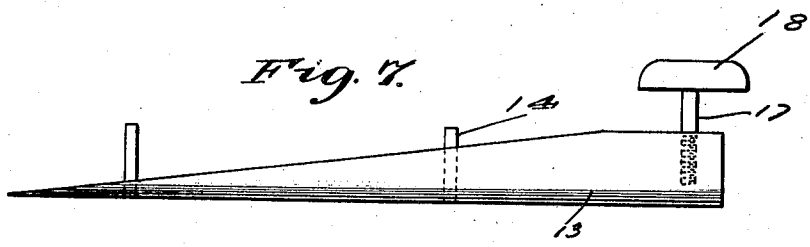


Fig. 7.



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WITNESSES

UNITED STATES PATENT OFFICE.

ANDREW EDWARD MATTHEWS, OF PLYMOUTH, PENNSYLVANIA.

HANDRAIL.

1,405,309. Specification of Letters Patent. Patented Jan. 31, 1922.

Application filed July 18, 1921. Serial No. 485,586.

To all whom it may concern:

Be it known that I, ANDREW E. MATTHEWS, a citizen of the United States, residing at Plymouth, in the county of Luzerne and State of Pennsylvania, have invented new and useful Improvements in Handrails, of which the following is a specification.

This invention comprehends the provision of a hand rail designed for use in connection with motor operated vehicles, and adapted to be arranged in the tonneau of the car in a position where it can be conveniently grasped by the occupants of the rear seat of the vehicle so as to brace themselves against the shocks and vibrations transmitted to the vehicle body incident to the travel of the machine over rough roads or the like.

The chief characteristic of the present invention resides in the provision of a rail of the above mentioned character, which is made up of two end sections and an intermediate connecting section, designed to be received by one of the end sections when not in use, but susceptible of being quickly and easily associated with the other section in the formation of a rail when use of the latter is desired.

More specifically stated, the intermediate connecting section is made up of two wedge-like members which when associated are adapted to be received by the end sections, means being provided for adjusting the wedge-like members in quick order, so that the sections are held fixed relatively when use of the rail is desired.

The nature and advantages of the invention will be better understood when the following detailed description is read in connection with the accompanying drawings, the invention residing in the construction, combination, and arrangement of parts as claimed.

In the drawings forming part of this application like numerals of reference indicate similar parts in the several views and wherein:—

Figure 1— is a fragmentary view of a motor operated vehicle, showing the normal position of the parts when the rail is not in use.

Figure 2— is a similar view, showing the rail set up in position for use.

Figure 3— is an enlarged view of one of the end sections, partly in section, showing the folded position of the intermediate connecting section.

Figure 4— is a sectional view taken on line 4—4 of Figure 3.

Figure 5— is an enlarged fragmentary detail view, showing the supporting bracket and its association with the end section.

Figure 6— is an enlarged detail view of the adjusting means for the intermediate section.

Figure 7— is a detail view of one of the wedge-like members forming part of the intermediate connecting section.

The device forming the subject matter of the present invention comprises two end sections identical in construction, and which sections are indicated at 10 and 11 respectively. These sections are of hollow tubular formation and adapted to receive the adjacent ends of the intermediate connecting sections indicated generally at A. The intermediate connecting section is made up of two wedge-like members 12 and 13 respectively, which members when associated provides a cylindrical section of a diameter whereby its ends are received by the end sections 10 and 11. Carried by the member 13 of the intermediate section are retaining elements 14 which hold the respective members of the intermediate sections operatively associated, the member 12 having elongated slots 15 through which the retaining elements 14 pass, so that the section 12 may be adjusted relatively to the section 13 in a manner and for a purpose to be hereinafter described. Journaled on the section 13 and projecting through a longitudinal slot 16 in the adjacent end section 10 is a shaft 17 equipped with a knob or the like 18 through the instrumentality of which the shaft 17 may be slid through the slot 16 for a purpose to be presently set forth, and also rotated with respect to the member 13. Carried by the member 12 of said section is a pin 19 which is connected to one end of a rod 20 which is eccentrically connected as at 21 with the knob 18.

Secured to the opposed sides of the car adjacent the rear seat thereof are brackets 22 each of which is designed to provide a bearing 23 for the reception of a headed bolt or shaft 24. This shaft or bolt 24 projects through a bearing 23 into the bifurcated extremity 25 of the adjacent end section of

the rail, and carries a collar 26 which is secured to the adjacent end section 10 by means of a pivot 27. This construction provides a universal connection between each bracket 22 and the adjacent end section of the rail, so that when the rail is not in use the end sections hang vertically from their brackets in close proximity to the sides of the vehicle, in an out of the way position. When the parts are in this position, the intermediate connecting section A is arranged within the end section 10, the shaft 17 sliding through the longitudinal slot 16 of said section for this purpose.

In practice, the parts are normally positioned in the manner just described, but when use of the rail is desired, the end sections 10 and 11 are swung upon the brackets 22 into horizontal alinement, after which the intermediate section A is projected from the end section 10 into the other end section 11. Subsequent to this arrangement of parts the knob 18 is utilized to rotate the shaft 17, and by reason of the connection between this knob 18 and the member 12 of the intermediate section of the rail, it is manifest that the member 12 is adjusted with relation to the member 13, so that the said members wedge themselves within the sections 10 and 11, thereby holding all of the sections fixed relatively in the formation of the rail. The rail thus produced, is now arranged in a position with relation to the rear seat of the vehicle, so that it can be conveniently grasped by the occupants of said seat in order that they may brace themselves against the vibrations and rebounds of the vehicle incident to its travel on irregular surfaces. The bracket or bearing for the end sections may be of any suitable construction, and these brackets may also be secured in the most convenient part of the vehicle in any suitable manner without departing from the spirit of the invention.

While it is believed that from the foregoing description the nature and advantages of the invention will be readily apparent, I desire to have it understood that I do not limit myself to what is herein shown and described, and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What I claim is:—

1. A hand rail of the character described comprising spaced end sections, an intermediate connecting section, said intermediate section including adjustable members designed for association with the end sections in a manner to hold said sections fixed relatively in the formation of a rail, and means for adjusting said members of the intermediate section for the purpose specified.

2. A hand rail of the character described comprising spaced tubular end sections, an intermediate connecting section, slidably fitted within one of the end sections and adapted to be projected therefrom to be received by the other end section in the formation of the rail, said intermediate section including adjustable members designed to engage the end sections in a manner to hold all of the sections of the rail fixed relatively, and means for adjusting the members of the intermediate section for the purpose specified.

3. A hand rail of the character described comprising two end sections of tubular formation, an intermediate connecting section slidably fitted within one of said end sections, and adapted to be projected therefrom to be received by the other end section in the formation of a rail, said intermediate section including wedge-like members relatively adjustable to hold all of said sections of the rail fixed relatively in position for use, and means for adjusting said members for the purpose specified.

4. A hand rail of the character described comprising two end sections of tubular formation, an intermediate connecting section slidably fitted in one of the end sections, and adapted to be received by the other end section in the formation of a rail, said intermediate section including wedge-like members relatively adjustable, a shaft journaled on one of said members and projecting through a slot in the adjacent end section, a knob carried by the shaft for rotating the latter, and a connecting rod eccentrically connected with said knob and with the other of said members, whereby the intermediate section may be adjusted with relation to the end sections for holding all of said sections fixed relatively for the purpose specified.

5. A hand rail for vehicles, comprising two end sections, and an intermediate section slidably fitted in one end section, means for securing the end sections to the opposed sides of the vehicle adjacent the rear seat thereof, said end sections being normally disposed vertically and adapted to be moved into horizontal alinement when positioned for use, said intermediate section being projected from said end section to be received by the other end section in the formation of the rail, and means for holding said sections fixed relatively when associated for use.

In testimony whereof I affix my signature.

ANDREW EDWARD MATTHEWS.