E. E. MEY.

FOLDING BUNK STAIRS.

APPLICATION FILED NOV. 11, 1914.

1,209,868.

Patented Dec. 26, 1916.

2 SHEETS—SHEET 1.

Fig. 1

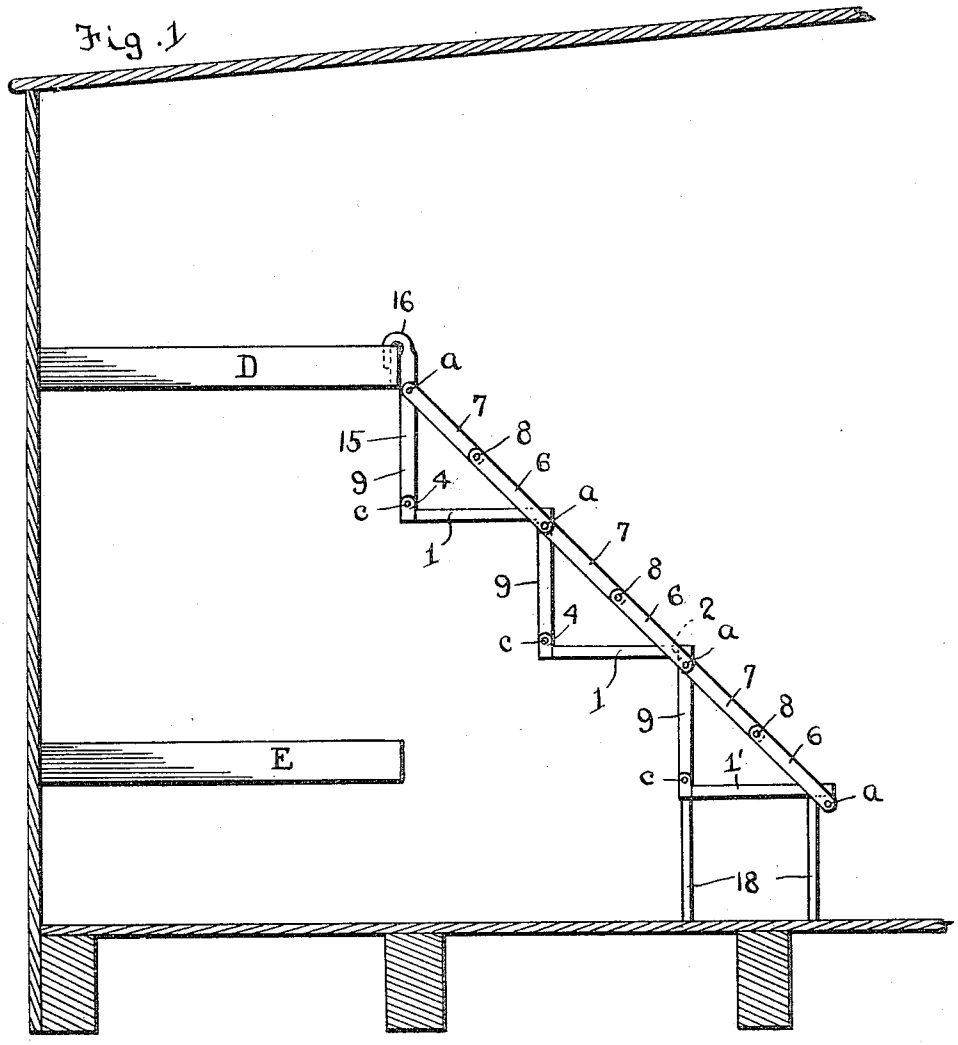
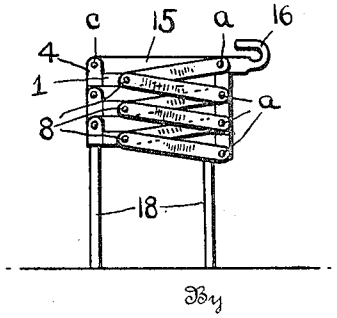


Fig. 2.



Witnesses

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2 SHEETS--SHEET 2.

Fig. 3.

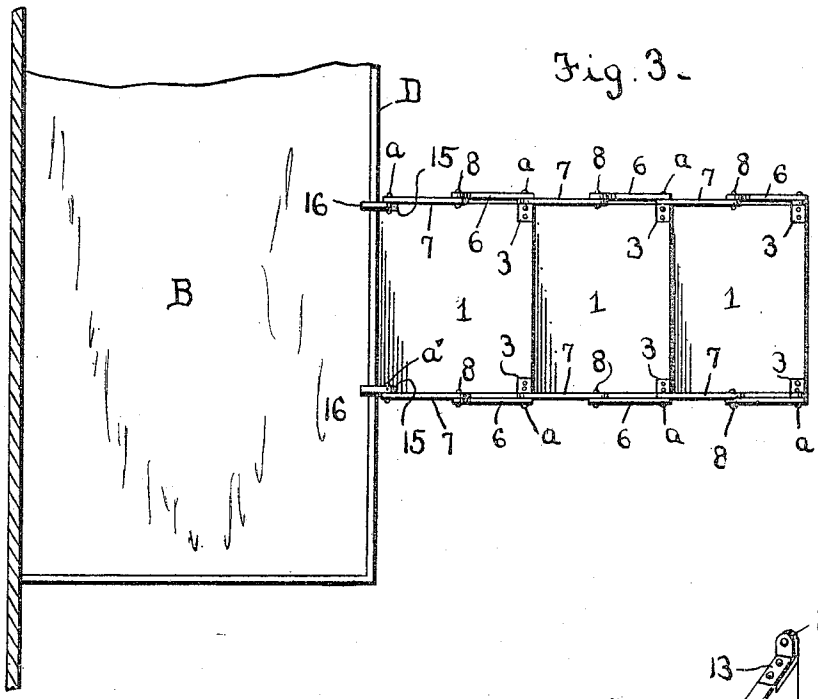


Fig. 4.

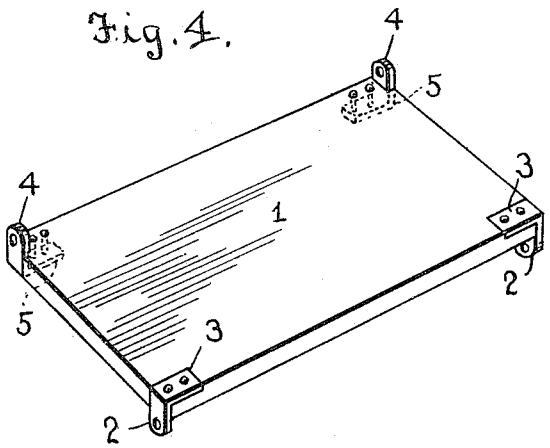
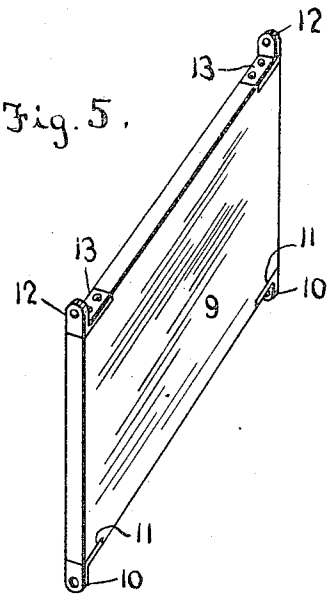


Fig. 5.



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FOLDING BUNK-STAIRS.

1,209,868. Specification of Letters Patent. Patented Dec. 26, 1916.

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To all whom it may concern:

Be it known that I, ELLA E. MEY, a citizen of the United States, and a resident of Del Rio, in the county of Valverde and State of Texas, have invented certain new and useful Improvements in Folding Bunk-Stairs, of which the following is a specification, reference being had to the accompanying drawings.

This invention has relation to folding stairs, especially adapted to be used in conjunction with the upper berths or bunks as used in sleeping cars, steamboats, and bunk houses.

The object of my invention is to provide stairs which can be compactly folded when not in use, to serve as a stool, the invention being particularly adapted to be used by porters in sleeping cars.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and finally pointed out in the appended claims, it being further understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawings forming a part of this specification and in which like numerals of reference indicate similar parts in the several views: Figure 1, shows an elevational view of a bunk house showing an upper and lower bunk, to the upper bunk of which is attached a folding stairs embodying my invention. Fig. 2, shows the stairs in its folded condition, adapted to be used as a stool. Fig. 3, is a top view of Fig. 1, with parts broken away. Fig. 4, is a perspective detail of one of the treads as used in my invention. Fig. 5, is a perspective view of one of the risers.

In my present invention I provide a folding stairs especially adapted to be used in sleeping cars to enable a person to easily climb into an upper berth.

In carrying out the aim of my invention I employ a stool comprising the top 1′ and having the supporting legs 18. To this top 1′ are operatively connected a plurality of treads 1 and risers 9 of a size equal to the size of said top 1′. As disclosed each tread as well as the top 1′ is provided at its two forward corners with two downwardly extending apertured ears 2, each ear having a securing base 3, by means of which the ear is secured to the tread. Secured to the two rear corners of each tread are two upstanding ears 4, each upstanding ear having a securing base 5, indicated in dotted lines in Fig. 4.

In connection with the top 1′ and each tread 1, I employ a riser 9, one of which is shown in detail in Fig 5. Each riser 9, is provided with two outstanding ears 10, secured to the two lower corners of each riser, while secured to the two upper corners of each riser are the outstanding ears 12. The ears 10, have suitable openings and are provided with the securing bases 11, while the ears 12, also have openings and securing bases 13. By means of suitable pins *c*, the ears 10, are secured to the ears 4, so that each riser will fold upon the upper face of one tread and against the under face of the adjacent tread, as shown in Fig. 2. Pivotally securing each upper ear 12, to a downwardly extending ear 2, are the pins *a*, and these pins *a*, further give pivotal support to the toggle bars 6 and 7, each set of toggle bars being pivotally connected by means of a pin 8, this construction being best shown in Fig. 1.

The uppermost riser 9, of the folding stairs is provided with two side bars 15, each ending in a hook 16, these hooks being adapted to hook over the edge of the bunk.

In the folded condition of the stairs the toggles are held adjacent to the ends of the treads and risers, in the manner shown in Fig. 2, so that the folded stair may be used as a stool. In raising the uppermost riser, the stairs may be unfolded and on properly engaging the hook 16, with a suitable support, the stairs will be in working condition.

It is of course understood that the legs 18, and the extended toggle bars must be of a proper length so that when in use the treads will come in horizontal position.

In Fig. 1, the upper bunk is marked D, and the lower bunk E, the stairs being shown in extended position.

The device is simple and inexpensive in construction, and both durable and efficient in operation, and the stairs can be adjusted upon the edge of a bunk with ease, accuracy and despatch.

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

1. The combination in a folding bunk

stairs, of a stool comprising a top and four supporting legs, of two downwardly extending apertured ears secured to the forward corners of said top, two upwardly extending ears secured to the rear corners of said top each of said ears having a securing base, of a plurality of treads of a size equal to the size of said top, each tread having two downwardly extending apertured ears at its forward corners and two upwardly extending apertured ears at its rear corners, of a plurality of risers each being of a size equal to the size of said top and treads each riser being provided with two outstanding ears at its lower corners and two outstanding ears at its upper corners, each riser being secured to two treads by means of pins passing through its ears and through the ears of said treads, two pivotally connected toggle bars each having one end pivotally secured to the pins connecting said treads to said risers at their forward corners, two side bars each ending in a hook adapted to engage the edge of a bunk secured to the uppermost tread and to the rear ears, two toggle bars connecting said side bars to the uppermost tread, whereby all of said treads and risers may be compactly folded upon said stool top said toggle bars being held against the outer ends of said treads and risers, as, and in the manner set forth.

2. The combination with a stool comprising a top and four supporting legs, of a plurality of treads and risers said risers being operatively connected to said treads, a set of hook ended bars secured to the uppermost tread, and a plurality of toggle bars connecting each of said treads and risers whereby all of said treads, risers, and toggle bars may be compactly folded upon said stool top, as, and in the manner set forth.

In testimony whereof I affix my signature, in the presence of two witnesses.

MRS. ELLA E. MEY.

Witnesses:
F. J. HEID,
JULIAN LA CROSSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."