

Jan. 5, 1960

C. KAKOSKA
PORTABLE ESCALATORS

2,919,658

Filed Feb. 3, 1958

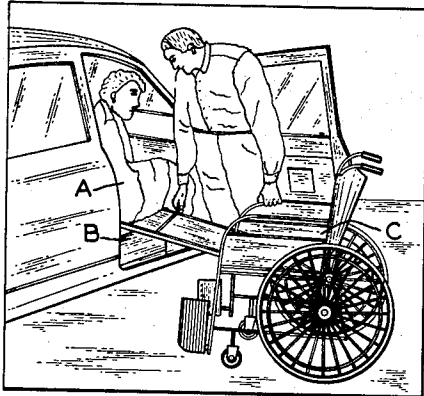


FIG. 1

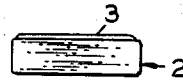


FIG. 5

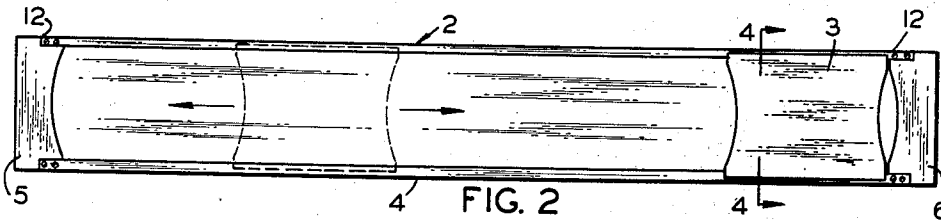


FIG. 2



FIG. 3

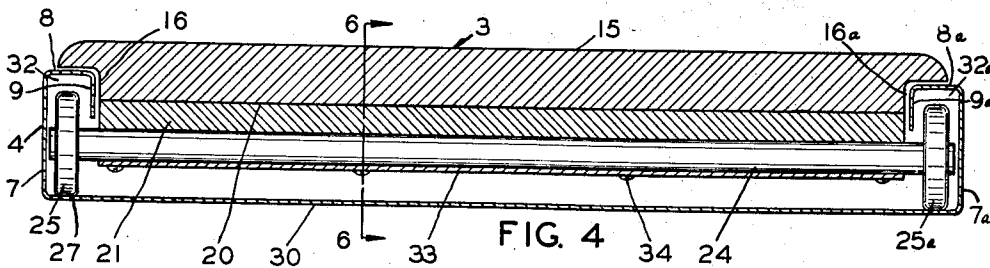


FIG. 4

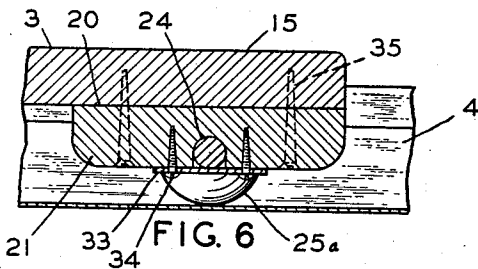


FIG. 6

INVENTOR.

Chris Kakoska
BY Scott L. Nowiel
att'y

1

2,919,658

PORTABLE ESCALATORS

Chris Kakoska, Maricopa County, Ariz.

Application February 3, 1958, Serial No. 712,718

2 Claims. (Cl. 104—94)

This invention relates to a portable escalator for moving invalids from one seated position to another seated position.

Heretofore devices for moving invalids, or lame persons who do not have the use of their legs, and who cannot stand, have been made very heavy and cumbersome and therefore limited in their uses. I have found that heavy overhead crane-like apparatus is unnecessary and have provided the devices hereinafter disclosed made in the form of a simple slideway.

One of the objects of the invention is to provide a device which will extend several feet from one seat to another and which acts as a runway for a slideable seat;

Still another object is to provide a movable seat supported on a bridge-like runway which can be extended from one chair or its equivalent to another chair or its equivalent and will enable a person who cannot stand on his or her feet to slide on the seat from one position to another;

Still another object is to provide a bridge-like base frame with a movable seat which will be confined to sliding motion on rollers from one position on the base to another; said seat being provided with overhanging parts so that clothing or other objects will not be caught between the moving parts;

Still another object is to provide a base bridge with a seat adapted to slide from one end to the other and to be supported on rollers operating within the seat, and having the edges of said base folded in and running in grooves in the side edges of said seat to eliminate tangling with clothing or other parts of the body of the user and having recesses at the ends so that persons grasping either the bridge or the seat will not have their fingers cramped between the base and the moving parts.

Other objects will appear hereinafter.

I attain the foregoing objects by means of the devices, parts and combinations of parts shown in the accompanying drawings in which—

Figure 1 is a perspective view of one of the uses to which the escalator may be put;

Figure 2 is a plan view of the base bridge with the movable seat shown in position at one end;

Figure 3 is a side elevational view thereof;

Figure 4 is a sectional view thereof taken substantially on line 4—4 of Figure 4 and drawn on an enlarged scale;

Figure 5 is an end view of the device as shown in Figure 1, and

Figure 6 is a sectional view of a portion of the seat, taken substantially on line 6—6 of Figure 4, drawn on an enlarged scale.

Similar numerals refer to similar parts in the several views.

Referring to the drawings 2 indicates the base frame or bridge which acts as a runway for the seat 3. At each end of the trough portion 4 of the base 2 there are end blocks 5 and 6.

2

As illustrated, the body of the trough 4 is composed of sheet metal which is folded longitudinally to provide a flat bottom 30 and upturned sides 7 and 7a. The tops of each of the sides are folded inwardly, as indicated at 8 and 8a forming horizontal flanges, and again folded downward as indicated at 9 and 9a to provide vertical flanges enclosing roller races 32 and 32a.

At each end of the trough-like structure 4, thus produced, there are blocks 5 and 6 which are grooved as at 12, so that the resulting structure is smooth and without any sharp edges. These ends may be held in place by screws or any other suitable means extending through the trough body and into the material of the ends.

The seat, generally indicated by numeral 3, consists of a top plate 15 which has longitudinal rabbets 16 and 16a along each edge. These rabbets are adapted to accommodate the flanges 8 and 9 and 8a and 9a, respectively, so that there is a slight clearance between the adjacent parts.

On the bottom face 20 of seat top 15 there are shaft bearing support blocks 21 at forward and aft end positions of the seat securely fastened with glue and screws 35, as shown. Through these support blocks, shafts 24 extend transversely to provide shafts for the rollers 25 and 25a.

The shafts are held in place by plates 33 secured by screws 34, as shown, if desired.

The rollers 25 and 25a run on ways on the base plate 30, of base 2, as indicated by numeral 27, and this structure forms a rolling support for the seat which, in turn, supports the weight of the user. The rollers are retained on the ways 27 by the flanges 8, 8a and 9 and 9a which form the races 32 and 32a.

In use, the bridge frame 2, with the seat 3 at the end where the person to be moved is positioned, is slipped under the person to be moved by raising the person slightly, and rocking him or her from side to side. With the person to be moved occupying the seat 3 the opposite end of the bridge 2 is placed in the seat onto which the person is to be moved. After this is done then the person merely rides on the seat 3 which rolls along the length of the bridge over and onto the second seat and thereafter he or she is lifted a little at a time, as by rocking, so that the seat 3 can be removed. During this operation it is at no time necessary to lift or support the entire dead weight of the person being moved.

Thus, for example, in Figure 1, the person to be moved, indicated by letter A is tilted or slightly rolled so that the seat 3, which is moved to the far end of the bridge 2, can be slid beneath this person. The bridge 2 is directed outward from the automobile seat B to the wheel chair seat C. After the person to be moved, A, is on seat 3 then the seat is rolled to the outer end of the bridge frame 2 and the person turned somewhat as he enters the seat C. Thereafter it is easy to remove the seat 3 and the bridge frame 2 from beneath this person so that he will occupy the wheel chair seat C.

I claim:

1. A device for moving persons who do not have the use of their legs from one seat to another seat consisting of a bridge base composed of a trough-like member of sheet metal having a flat imperforate bottom, up turned lateral edges on said bottom forming side plates, flanges extending inwardly and downwardly forming horizontal and vertical plates enclosing laterally disposed roller raceways, and end blocks at each end of said base enclosing the ends of the raceways and said trough, and a seat having a flat top with lateral edges extending over said raceways, transverse blocks on the underside of the end portions of said seat enclosing the area beneath said seat top

3

and having transverse axle grooves, and axles journalling rollers at each end and held in said grooves; said rollers being disposed to run in said enclosed roller raceways.

2. A portable escalator for moving persons who do not have the use of their legs from one seat to another consisting of a bridge-like base composed of a trough-like central portion of sheet metal having a flat imperforate bottom, up turned side edges forming side enclosing plates, inwardly extending flanges on the top of said side plates forming raceway top enclosing plates and downwardly extending flanges on the inner edges of said top enclosing plates, forming top channel stiffening members and top inner raceway flanges; said side top and top inner flanges forming enclosed roller raceways to retain seat rollers, and a seat having a flat top with edges extending over said roller raceways and having transverse blocks at each end on its lower face enclosing the ends of the space beneath

4

said seat top and provided with transverse grooves, roller shafts bedded in said grooves, rollers journalled on each end of each shaft; said rollers being disposed to run on the side portions of said base bottom and within said enclosed roller raceways, and end blocks set into the ends of said bridge base closing the ends of said trough-like central portion of said bridge base and the roller raceways along each side of said bridge base.

References Cited in the file of this patent

UNITED STATES PATENTS

351,476	Stromeyer	Oct. 26, 1886
923,487	Buhl	June 1, 1909
1,914,767	Beckwith	June 20, 1933

FOREIGN PATENTS

921,511	France	Jan. 13, 1947
---------	--------	---------------