

Mar. 20, 1923.

M. A. BLEWITT ET AL.
INVALID SUPPORT.
FILED MAY 26, 1921.

1,448,783.

Fig. 1.

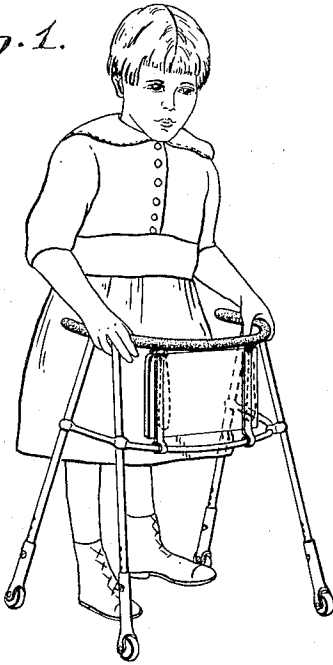


Fig. 2.

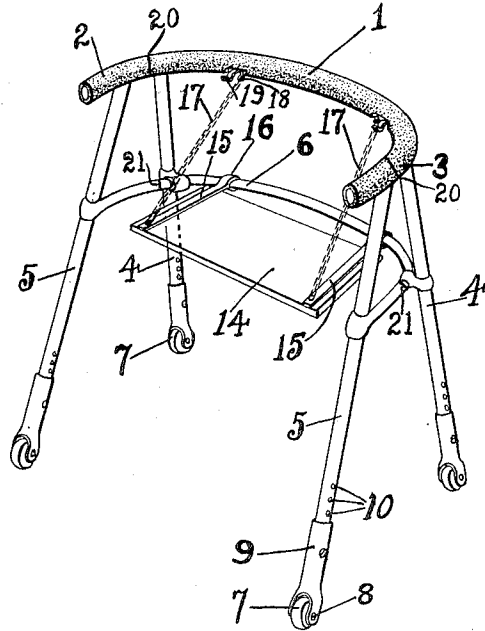


Fig. 3.

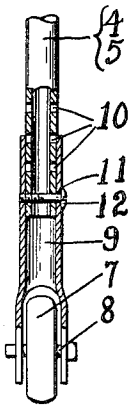


Fig. 4.

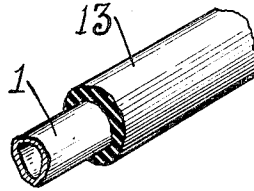
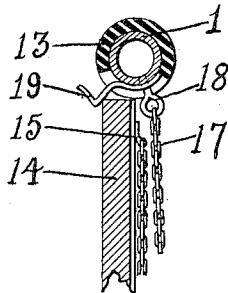


Fig. 5.



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UNITED STATES PATENT OFFICE.

MARY ANNA BLEWITT, OF NEW YORK, AND EDWARD W. PETERSON, OF YONKERS,
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INVALID SUPPORT.

Application filed May 26, 1921. Serial No. 472,664.

To all whom it may concern:

Be it known that we, MARY ANNA BLEWITT and EDWARD W. PETERSON, both citizens of the United States, residing, respectively, in the borough and county of Bronx, city and State of New York, and at Yonkers, in the county of Westchester, State of New York, have invented certain new and useful Improvements in Invalid Supports, of which the following is a specification.

This invention relates to invalid supports, and more particularly to a device of this character adaptable for use by individuals, especially children, who have but slight use of the lower limbs, and which may be used by such individuals continually in their daily activities, the device performing the service of crutches, but without the attendant limitations and disadvantages of the latter.

During epidemics of so-called "infantile paralysis" and other spinal diseases many were rendered semi-paralytic, by affections of the spine and lower limbs, and of these but few could effect locomotion even by aid of crutches, the use of which requires strength and, in cases where both limbs are affected, considerable skill. This unfortunate condition has been the cause of much distress with children who are unable to stand or move about without assistance and as a result are confined indoors much of the time.

The object of our present invention is to enable such invalids to obtain support so that they may move about freely without personal assistance and engage in indoor or outdoor games, play, or other activities. A further object is to accomplish the above by a device which will be comfortable, light in weight, absolutely rigid, durable in construction, cheap and easy to manufacture, and which is small and compact in size and may be easily transported, and collapsed when desired.

Further objects of the invention will hereinafter appear and to the ends set forth hereinabove the invention consists in the features of construction and arrangement of parts described and claimed in the following specification and shown in one preferred practical embodiment on the accom-

panying drawing, forming a part hereof, in which—

Figure 1 is a perspective front view of the device as it appears in use;

Figure 2, a rear view, in perspective; also indicating how the device may be collapsed;

Figure 3, a view partly in section of the adjustable leg construction;

Figure 4, a sectional view, partly broken away, of the handle bar; and

Figure 5, a sectional view showing the means for locking the seat in inoperative position.

In its essential characteristics the device includes a frame consisting of an approximately semi-circular handle bar 1 having side arms 2 and 3, mounted upon a plurality of legs or standards 4, 4 and 5, 5. The legs are arranged in pairs, one pair at the forward end and one at the rearward end, the front and rear legs 4 and 5 diverging from each other. The forward legs 4, 4 are more widely spaced from each other than the rearward legs 5, 5 are from the forward legs with which they are aligned, to provide the maximum amount of space for passage of the limbs of the user of the device without making the device cumbersome. The upper ends of the legs are disposed relatively close to each other and are rigidly secured to the bar 1 at points approximately centrally of the side arm portions 2 and 3 and within the compass of a semi-circle. The angle of divergence is such that the ends of the pairs of legs project outwardly beyond the plane of the handle bar 1. By this arrangement however the child may grasp the bar 1 the centre of gravity of the body will be within the outer limits of the base, the device thus providing a substantial pyramid support.

Below the handle bar 1 a brace bar 6, arranged parallel with the handle bar 1, joins the four legs 4, 5, thus making the framework of the device absolutely rigid. The legs 4, 5 and the bars 1 and 6 are constructed preferably of light but strong steel tubing, but may be constructed of other material, and the legs are welded or otherwise rigidly secured to the bars 1 and 6. At the base of each of the leg portions we provide a wheel or roller 7 mounted in a bearing 8 in a foot piece or socket 9. The legs 4, 5

are slidably adjustable in these sockets 9 so that the support may be fixed at the height most convenient to the user, preferably somewhat below the waist line. Adjustment is permanently effected by means of a plurality of pairs of aligned holes 10 in the ends of the legs 4, 5 which are adapted to be aligned with holes 11 in the socket 9, the legs being rigidly secured in the sockets when the desired adjustment has been obtained, by means of rivets or other similar securing means 12.

The handle bar 1 is preferably covered with soft rubber, leather, or other resilient material 13 in order to provide a comfortable upholstered grip and also to prevent transmission of heat from the metal portions.

On the brace bar 6 between the forward pair of legs 4 we secure a hinged seat which is normally held in inoperative position but which may be lowered within the frame for use when desired. This seat consists of a body portion 14 constructed of wood, metal, or other material, supported by straps 15 which are riveted or otherwise secured thereto, the outer ends of the straps being looped around the brace bar 6 to form hinges as shown at 16. The seat is suspended from the bar 1 by side chains or other desired means 17 secured to the forward end of the seat and hung from eye bolts 18 at the under side of the bar 1. The eyes of the bolts 18 are disposed in vertical alignment with the straps 15, so that when the seat is raised the straps abut against the bolts, which thus act as a stop. The bolts 18 also serve to secure in place snap catches or detents 19, which engage the under edge of the forward portion of the seat to lock it in its inoperative position. When so locked the chains hang in loops outside the device. The sides 2 and 3 of the handle bar 1 and the legs 5 may be folded inwardly against the raised seat to collapse the entire device, hinges or other separable connections, indicated at 20 and 21, being provided for this purpose. When thus collapsed the device may be easily transported from place to place, in public conveyances or otherwise.

It will be seen that the wheels 7 are arranged in permanent vertical alignment on each side, so that the support is movable only forwardly or rearwardly and can not move sidewise. This is an important feature of the present device as it prevents the support from moving or slipping under the influence of side pressure or in case all the weight of the user's body should be bore at one side of the device, as it frequently is.

In the use of the device as described the invalid grasps the handle portions 2, 3, rests the weight of the body upon the support and moves it forwardly, pushing with each foot alternately. When the user desires to turn

a corner or move the device at an angle the forward end is lifted slightly and turned in the direction desired. The legs are adapted to permit free and unobstructed passage for the limbs of the user at both sides, front and rear between the brace bar and the surface upon which the device is adapted to travel.

The use of the device inspires confidence in the mind of the invalid and the user soon acquires proficiency and speed in moving about. The free use of the limbs and body which the device allows, permits the affected parts to develop without restraint and renders it unnecessary for the child to be equipped with braces or other surgical devices. Marked improvement in the condition of the patient results in a short time, even in cases first regarded as permanently paralytic.

A child, for instance, using the device, except for outward appearances is under practically no handicap in moving about or taking part in games or recreation with playmates. The device is so light that the child may travel up or down stairs unassisted and over either rugged or smooth surfaces with facility. When fatigued after prolonged activity the child lowers the seat and rests and on resuming locomotion the seat is simply thrown upward and locked in inoperative position by the automatic catch.

While the form shown herein has been found to be one suitable and preferred form of device for carrying out the objects of the invention, other forms of devices may occur to those skilled in the art as equivalent constructions without departing from the spirit and scope of the invention as defined in the appended claim.

What we claim is:

In a device of the character described, a handle bar forming a hand gripping portion, pairs of forwardly and rearwardly diverging legs rigidly secured thereto, a reinforcing brace bar arranged parallel with said handle bar and rigidly secured to said leg portions, wheels on said legs, means for adjusting the height of the device and fixing such adjustment, straps adjacent to each side of said brace bar, the outer ends of said straps being looped around the brace bar to form hinges, a seat supported by said straps and adapted to be lowered for use and raised to inoperative position when not in use, means for suspending said seat from the handle bar including bolts against which said straps are adapted to abut when the seat is raised, and catches secured in place by said bolts and adapted to lock the seat in inoperative position between the handle and brace bars.

In testimony whereof, we have signed our names to this specification.

MARY ANNA BLEWITT.
EDWARD W. PETERSON.