July 17, 1956 G. E. BRUCKNER ET AL 2,754,523

BATHTUB ELEVATOR

Filed June 14, 1954 2 Sheets-Sheet 1

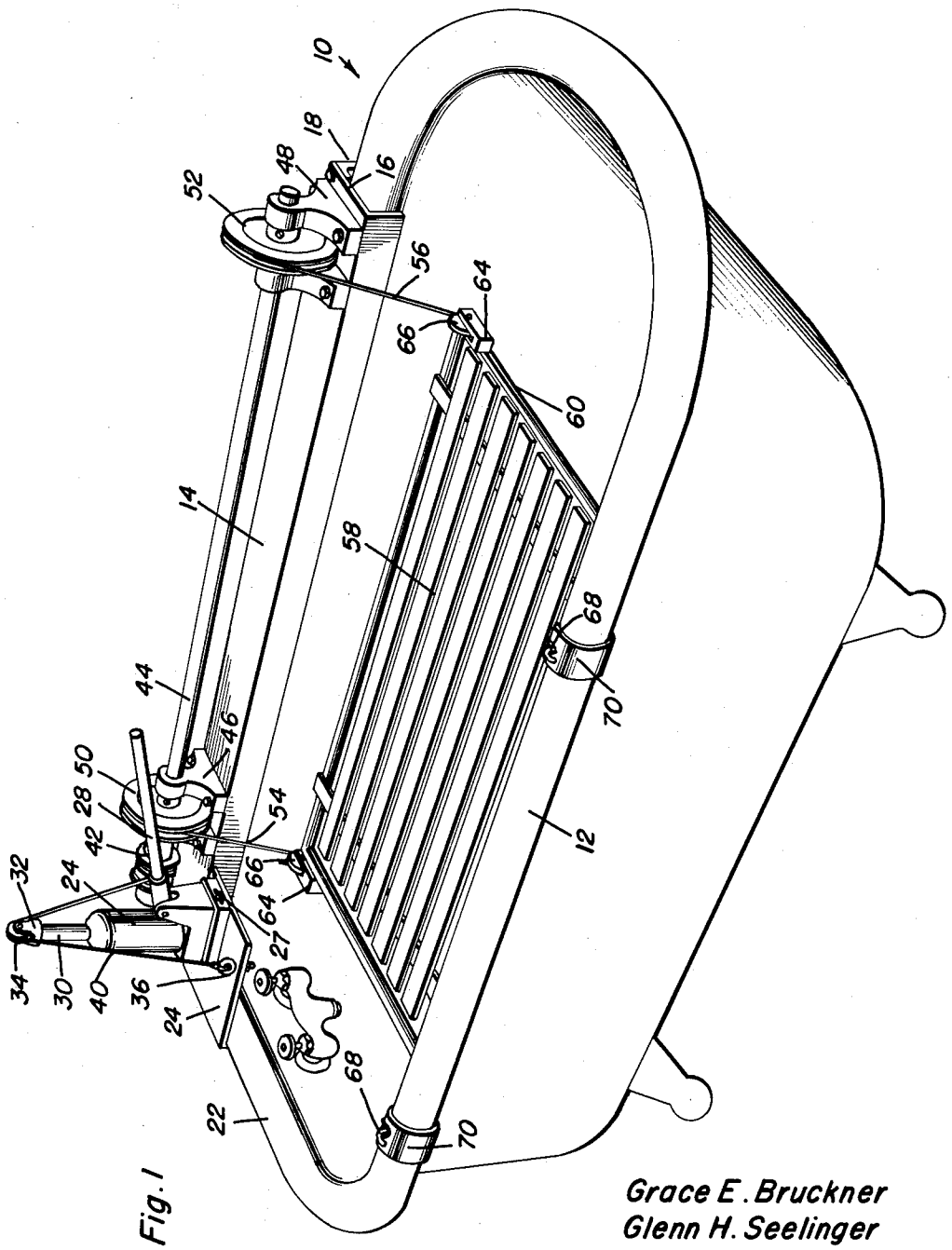


Fig. 1

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BATHTUB ELEVATOR

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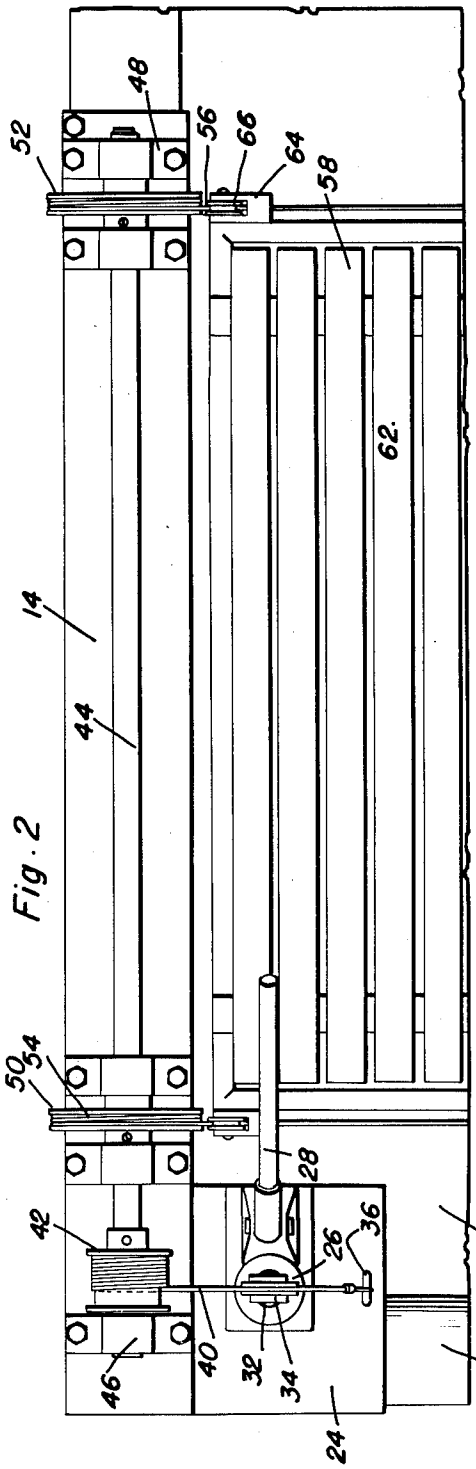


Fig. 2

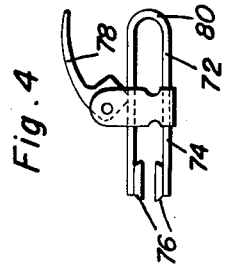


Fig. 4

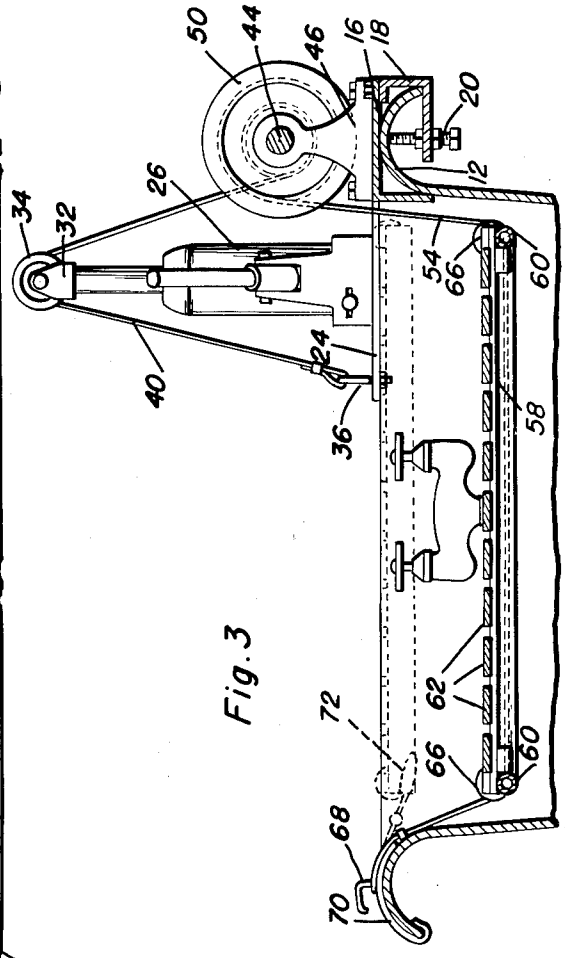


Fig. 3

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BATHTUB ELEVATOR

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Application June 14, 1954, Serial No. 436,662

2 Claims. (Cl. 4—185)

This invention relates to an elevator adapted to be used in combination with a bathtub for facilitating the bathing of elderly persons, the handicapped, semi-invalids or for the therapeutic treatment of invalids and for use in hospitals, nursing, convalescent and private homes, wherever there are handicapped persons in one degree or another. Furthermore, the invention is adapted for use of mothers with small children to bathe and eliminates difficulties present in the lifting in and out of the tub of chubby, heavy youngsters be they healthy, handicapped or crippled.

One of the most difficult things in the care of a bedridden, handicapped or elderly patient, or person, is the proper cleansing of the patient so as to render the person more comfortable. No matter how elderly or handicapped, the patient needs and longs for the cleansing joy and relaxation of a tub bath. This invention makes a tub bath possible, solves the difficulty of transferring the patient even from a wheel chair or the like to the bathtub by providing a platform positioned and anchored at approximately the height of a bathtub onto which the patient can be safely positioned with great facility; and, utilizing the invention, the patient or bather, elderly or young, may then be lowered into the water in the bathtub comfortably and safely; thus eliminating all danger of falling or slipping of invalid, semi-invalid, handicapped patient, or elderly or child bather.

A further object of the invention resides in the provision of a bathtub elevator which employs no cables or like equipment which extend any substantial distance above the edge of the bathtub on the side where the patient is deposited on the platform, thus assuring an easy transfer from a wheel chair to the platform of the bathtub elevator.

One of the advantages of the invention resides in the arrangement of parts whereby the platform, frame and cables may be removed from the tub and stored so that the bathtub may be used without the mechanism.

Still further objects and features of this invention reside in the provision of a bathtub elevator which employs a hydraulic jack for use in providing the means for raising and lowering the patient, thus assuring against accidents by providing a positive means for raising and lowering the patient, which is strong and durable, which utilizes the patient's own weight for the lowering of the patient into the water utilizing the hydraulic jack, and which is relatively inexpensive to construct, thereby permitting wide distribution.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by this bathtub elevator, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a perspective view showing the bathtub elevator in combination with a bathtub;

Figure 2 is a plan view of the invention;

Figure 3 is a vertical sectional view of the invention

illustrating the arrangement of cables and pulleys in greatest detail; and

Figure 4 is an elevational view of the clamp means used for lockingly holding the platform in a raised position.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral **10** generally designates a platform of conventional construction which may be provided with a rim **12** to which a support **14** is adapted to be secured. The support **14** can be formed from a suitable angle member **16** to which clamp bars **18** have been attached in which threaded clamp members **20** are adjustably positioned for engagement with the rim **12**. Obviously, this invention may be used in conjunction with various types and models of bathtubs.

Forming a part of the support **14** and overlying the end **22** of the bathtub **10** as well as a portion of the adjacent side thereof is a plate **24** on which a hydraulic jack **26** having a relief valve **27** is secured. The hydraulic jack **26** is operated by a lever **28** and has a piston rod **30** which has a bifurcated portion **32** carrying a pulley **34**. An eye or hook **36** of any convenient construction is secured to the plate **24** and one end of a cable **40** is attached thereto, the cable **40** being entrained over the pulley **34** and being secured on a drum **42**. The drum **42** is mounted on a shaft **44** which is journaled in any suitable number of bearing blocks **46** which are bolted or otherwise secured to the support **14**.

Mounted on the shaft **14** are pulleys **50** and **52** over which cables **54** and **56** ar entrained.

A platform **58** is provided and may consist of a tubular frame, as at **60**, on which the slatted platform **58** rides or is attached, the spaced slats **62** being especially adapted to permit the water to drain from the platform as it is raised and to further facilitate quick drying thereof so that the platform does not become a seat for fungus or bacteria. Secured to the corners of tubular frame **60** are bifurcated members **64** which carry pulleys **66**. The cables **54** and **56** engage the pulleys **66** and are secured at their other ends to hooks or other suitable members **68** attached to members **70** which are adapted to detachably engage over the rim **12** of the bathtub **10**.

Secured to the platform **58** are clamps **72** which include a substantially U-shaped body **74** having gripping portions **76** at the upper ends thereof. A cam actuated member **78** is engaged over the U-shaped member **70** so as to lockingly urge the gripping portions **76** together. The central connecting portion **80** of the U-shaped members may be pivotally secured to the frame **60** of the platform **58** or engaged thereabout, and when the platform is in the raised position shown in the dotted lines in Figure 3, the engaging portions **76** of the clamps **72** can engage the cables **54** and **56** to lockingly hold the platform **58** substantially motionless so that an invalid or elderly person can be placed on the platform **58** with great facility. Then, the jack **26** can be actuated to permit the weight of the patient to lower the platform and the patient into the water in the tub. When it is desired to raise the patient, the jack **26** can then again be actuated, and after the platform has reached its upper position, the clamps **72** can again be engaged to hold the platform **58** motionless until the patient has been removed.

It is to be recognized that actuation of the jack **26** causes rotation of the shaft **44** by the action of the cable **40** on the drum **42**. This, in turn, causes the cables **54** and **56** to wind on the pulleys **50** and **52** so as to raise the platform **58**.

From the foregoing, the construction and operation of the device will be readily understood and further ex-

planation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A bathtub elevator in combination with a bathtub comprising a support adapted to seat on said bathtub, a jack on said support, a shaft journaled on said support, winding drums on said shaft, a drum on said shaft, a cable on said drum engaging said jack so that upon operation of said jack, said shaft will be rotated, a platform, and other cables secured to said bathtub engaging said platform and being entrained about said winding drums, and clamp means secured to said platform lockingly engaging said cable to hold said platform substantially motionless when in a raised position.

2. A bathtub elevator in combination with a bathtub comprising a support adapted to seat on said bathtub, a jack on said support, a shaft journaled on said support, winding drums on said shaft, a drum on said shaft, a cable on said drum engaging said jack so that upon operation of said jack, said shaft will be rotated, a platform, and other cables secured to said bathtub engaging said platform and being entrained about said winding drums, pulleys on said platform, said other cables engaging said pulleys, said support being detachably clampingly secured to said bathtub, said support overlying a side and one end of said bathtub, said jack being positioned adjacent the corner portion of said bathtub formed by said side and said end of said bathtub, and clamp means secured to said platform lockingly engaging said cable to hold said platform substantially motionless when in a raised position.

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