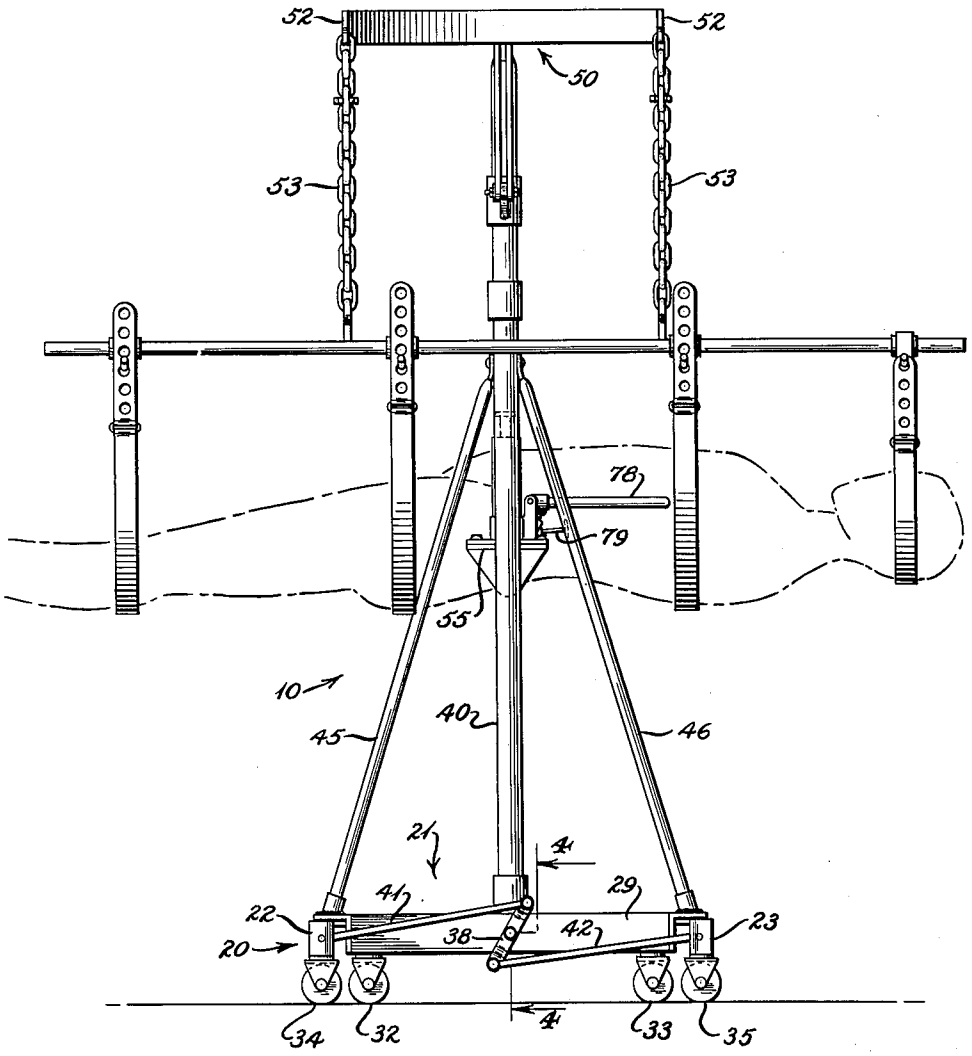
March 27, 1956 G. E. PENTECOST 2,739,783

BODY TRANSFER HOIST

Filed Oct. 29, 1952 3 Sheets-Sheet 1

Fig. 1



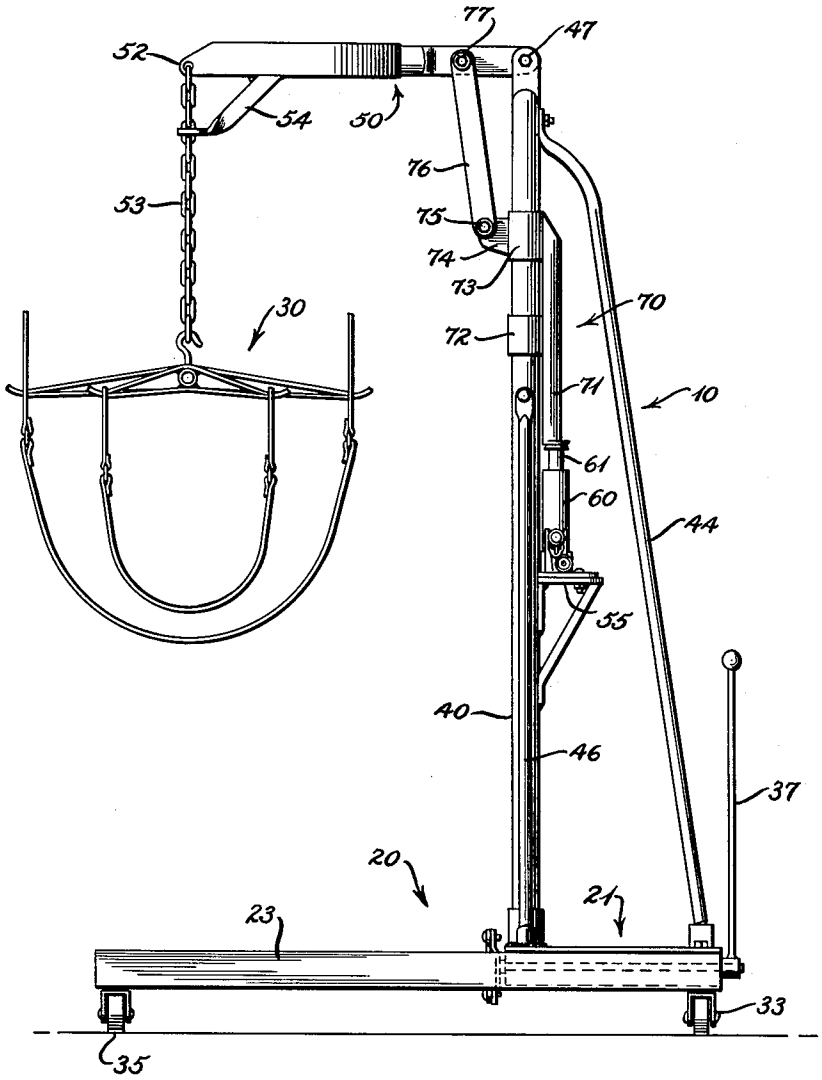
INVENTOR.
George E. Pentecost
BY
Beale and Jones
ATTORNEYS

March 27, 1956 G. E. PENTECOST 2,739,783

BODY TRANSFER HOIST

Filed Oct. 29, 1952 3 Sheets-Sheet 2

Fig. 2



INVENTOR.
George E. Pentecost
BY
Beale and Jones
ATTORNEYS

March 27, 1956 G. E. PENTECOST 2,739,783

BODY TRANSFER HOIST

Filed Oct. 29, 1952 3 Sheets-Sheet 3

Fig. 3

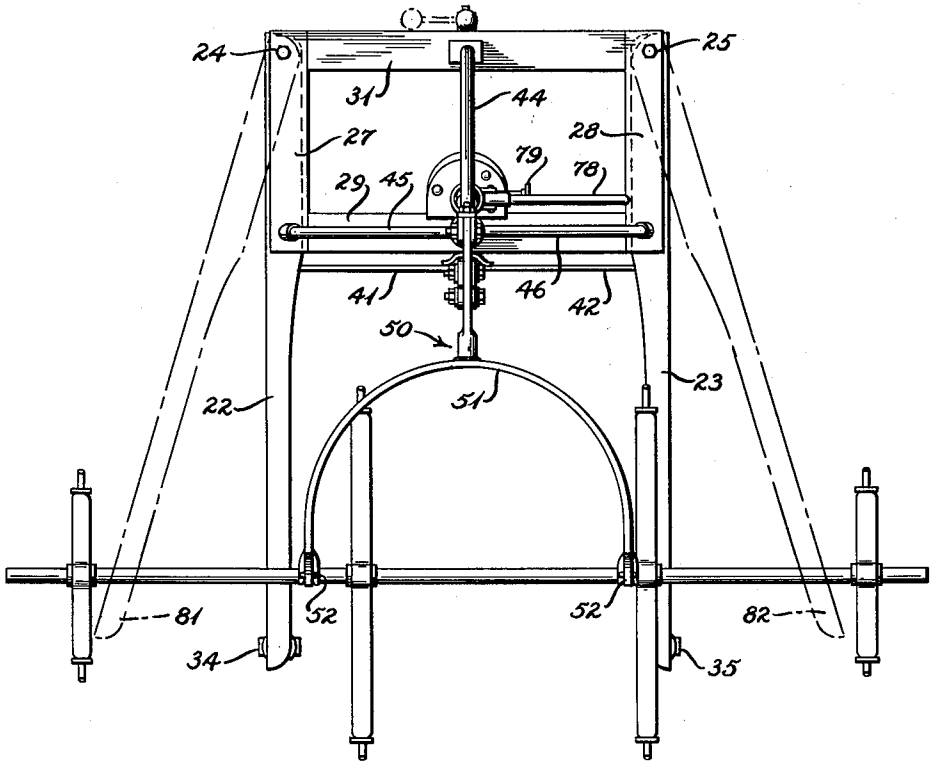
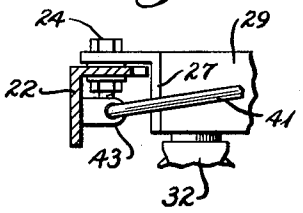


Fig. 5



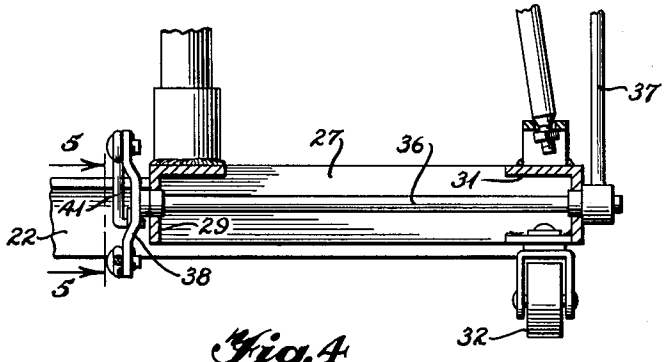


Fig. 4

INVENTOR.
George E. Pentecost
BY
Beale and Jones
ATTORNEYS

United States Patent Office 2,739,783
Patented Mar. 27, 1956

2,739,783

BODY TRANSFER HOIST

George E. Pentecost, Milford, Ill.

Application October 29, 1952, Serial No. 317,397

3 Claims. (Cl. 254—8)

This invention relates to body transfer hoists, and more particularly to hoists adapted to lift a body from one resting place, move it into position over another resting place, and lower it onto the second resting place.

An object of this invention is to provide an improved device of this character which is efficient and easy to operate and which is comparatively inexpensive to manufacture.

Another object is to provide a device of this character having a novel supporting base adapted to be adjusted so as to fit under various tables, casket pedestals, and other resting places.

Another object is to provide a device of this character having a novel hydraulic lift mechanism.

Other objects will become apparent from the detailed description following, which refers to the appended drawings, in which:

Figure 1 is a view in elevation from in front of one embodiment of my improved body transfer hoist, showing in broken lines a body supported thereby.

Figure 2 is a view in side elevation of the same hoist.

Figure 3 is a plan view of the same hoist, showing in broken lines the base legs in their fully spread position.

Figure 4 is an enlarged fragmentary view substantially along line 4—4 of Figure 1, showing a detail of the leg spreading mechanism.

Figure 5 is another enlarged fragmentary view along line 5—5 of Figure 4, showing another detail of the leg spreading mechanism.

Referring now to the drawings, in which like numbers refer to like parts, one embodiment of my invention is illustrated consisting of an hydraulic body transfer hoist generally designated 10, including a horizontal base, generally designated 20, which comprises a rigid rectangular frame, generally designated 21 at the rear of hoist 10, and a pair of horizontal legs 22 and 23 pivoted at their rear ends respectively to vertical hinge pins 24 and 25 in the rear corners of frame 21. Legs 22 and 23 are thus pivotally mounted to the rear corners of frame 21 for horizontal swinging movement about said rear corners, which are also the rear corners of body transfer hoist 10.

Frame 21 has side rails 27 and 28, a front rail 29, and a rear rail 31. Legs 22 and 23 are much longer than side rails 27 and 28, and extend to the front of hoist 10, beyond the center of body support means 30, as best seen in Figure 2.

Base 20 is supported above the floor by means of casters mounted under the rear corners of frame 21 at 32 and 33, and under the front ends of legs 22 and 23, at 34 and 35 respectively. Thus hoist 10 may be moved about on a floor.

Means is provided for spreading legs 22 and 23 apart in the manner illustrated in broken lines in Figure 3, which will now be described. A horizontal shaft 36 is rotatably mounted in frame 21, with its ends extending beyond front and rear rails 29 and 31 as best seen in Figure 4. A lever 37 is fixed on the rear end of shaft 36, and a transverse bar 38 on the front end, extending

on both sides of shaft 36. A pair of connecting rods 41 and 42 connect the ends of bar 38 with legs 22 and 23 respectively at points intermediate their ends, as at 43 in Figure 5.

A mast 40 is mounted on front rail 29, being secured thereon in a suitable manner, as by welding. Mast 40 rises vertically from frame 21, and is braced thereto by suitable stays, such as 44, 45, and 46. Pivoted at 47 to the top of mast 40 is a boom 50 which extends approximately horizontally toward the front of body transfer hoist 10. Boom 50 is preferably forked as at 51, so as to terminate in a forked front or outer end 52—52, as best seen in Figure 3. Depending from the outer or front double end of boom 50 is a body support means 30, which may be suspended by chains 53. The structure of body support means 30 is not a part of the present invention. It is believed that its use with transfer hoist 10 will be apparent from the drawings, and that it is unnecessary to describe it.

Mechanism is provided for raising and lowering boom 50 which will be described hereinafter. In order to obtain a substantially straight lift of body support device 30, extensions 54 are provided below the forked end of mast 50 to hold chains 53 at substantially the same radius from pivot 47 within the range of lift of boom 50.

A shelf 55 is secured to mast 40 on which is mounted a jack 60, from which extends upwardly a lifting or piston rod 61. Supported by piston rod 61 is a sliding member 70 comprising a vertical member 71 to which are secured, as by welding, a pair of collars 72 and 73. These collars are slipped over the top of mast 40 in assembly (before stay 44 is attached) and have a freely sliding fit with mast 40. A lug 74 welded to one of the said collars provides a pivot 75 for the lower end of a connecting rod 76 the upper end of which is pivotally connected at 77 to boom 50 intermediate its ends. Pivot 77 is placed relatively close to pivot 47 as best seen in Figure 2, so as to multiply the throw of the front or outer end 52 when jack 60 is operated.

Jack 70 may be a hand operated hydraulic jack of conventional design having a pump handle 78 for lifting, and a release valve operable by a stem and knob 79 for lowering.

The manner of making and assembling this hydraulic body transfer hoist will be obvious to those skilled in the art from the drawings and foregoing description. Similarly, it is thought that the manner of using the hoist will be apparent. By moving lever 37 the horizontal legs may be adjusted to the required amount of spread so as to enable the operator to fit the base under a body rest, with chains 53 centered over the body to be transferred. Body support means 30 is strapped to the body and hooked to appropriate links of chains 53, the height of hooking onto the chains being chosen so as to make best use of the available lift range of the hoist. The hydraulic jack is then operated to lift the body clear of the body rest which has been supporting it. The entire body transfer hoist is then pushed on its casters into position with the body above the new resting place, the lever 37 being operated as may be necessary to avoid obstructions under the new resting place. The hydraulic jack is then lowered, lowering the body onto the new resting place.

An important feature of my invention lies in the method of mounting the spreadable legs pivotally at the extreme rear corners of the hoist, as at 24 and 25. This permits the maximum spread of legs 22 and 23 while still keeping their supporting ends safely in front of or beyond the outer or front end 52—52 of boom 50, as best seen at 81 and 82 in Figure 3. Pivoting the spreadable legs at the rear corners of the hoist also makes possible the convenient and novel leg spreading mechanism.

This body transfer hoist has been found to be strong, efficient, and easy to operate. It can be manufactured at substantially less cost than similar hoists now on the market. It has a lift of about 30 inches, but longer chains than those indicated in the drawings permit a lift from any height.

Numerous changes within the scope of the appended claims will be obvious to those skilled in the art. It will also be obvious that the device is adapted for hospital and similar uses as well as for mortuary use.

Having described my invention I claim:

1. An hydraulic body transfer hoist comprising: a base having a horizontal frame at the rear portion thereof, a pair of horizontal legs pivoted at their rear ends to the rear corners of said frame and extending along the sides of said frame with their front ends well beyond the front of said frame, said legs being pivoted for horizontal swinging movement about said rear corners; a leg spreading mechanism for spreading said legs away from and toward said frame; casters supporting said base under said rear corners and under said front ends of said legs; a mast extending upwardly from said frame; a boom having its rear or inner end pivotally connected to the top of said mast for vertical swinging movement, said boom extending approximately horizontally to the front of said body transfer hoist; support means depending from the front or outer end of said boom; an hydraulic jack mounted on said mast having a piston rod extending upwardly from said jack; a sliding member mounted on said mast above said jack supported by said piston rod; a connecting rod pivotally connected at one end to said sliding member and pivotally connected at its other end to said boom intermediate its ends; and means for actuating said jack for raising and lowering said boom; whereby said legs may be spread so as to avoid obstructions and said support means may be raised and lowered by said hydraulic jack.

2. An hydraulic body transfer hoist in accordance with claim 1 wherein said mast is mounted on the front of said frame.

3. A body transfer hoist comprising a horizontal base mounted on casters, a vertical mast mounted on said base, a boom having its rear or inner end pivoted to the top of said mast for vertical swinging movement, said boom extending approximately horizontally toward the front of said body transfer hoist and having support means depending from its front or outer end, and a boom raising and lowering mechanism for raising and lowering said boom comprising: an hydraulic jack mounted on said mast having a piston rod extending upwardly from said jack, a sliding member mounted on said mast above said jack supported by said piston rod, a connecting rod pivotally connected at one end to said sliding member and pivotally connected at its other end to said boom intermediate its ends, and means for actuating said jack for raising and lowering said boom; whereby said boom with its depending support means may be raised and lowered by said jack.

References Cited in the file of this patent

UNITED STATES PATENTS

686,425	Sommerfeld	Nov. 12, 1901
1,302,489	Hollis	Apr. 29, 1919
1,889,925	Leininger	Dec. 6, 1932
1,920,989	Layhon	Aug. 8, 1933
2,491,953	Coats	Dec. 20, 1949
2,595,651	Feist	May 6, 1952