

Feb. 6, 1968

R. A. KAPLAN

3,367,512

FLOOR CRANE

Filed Jan. 10, 1966

4 Sheets-Sheet 1

FIG. 1

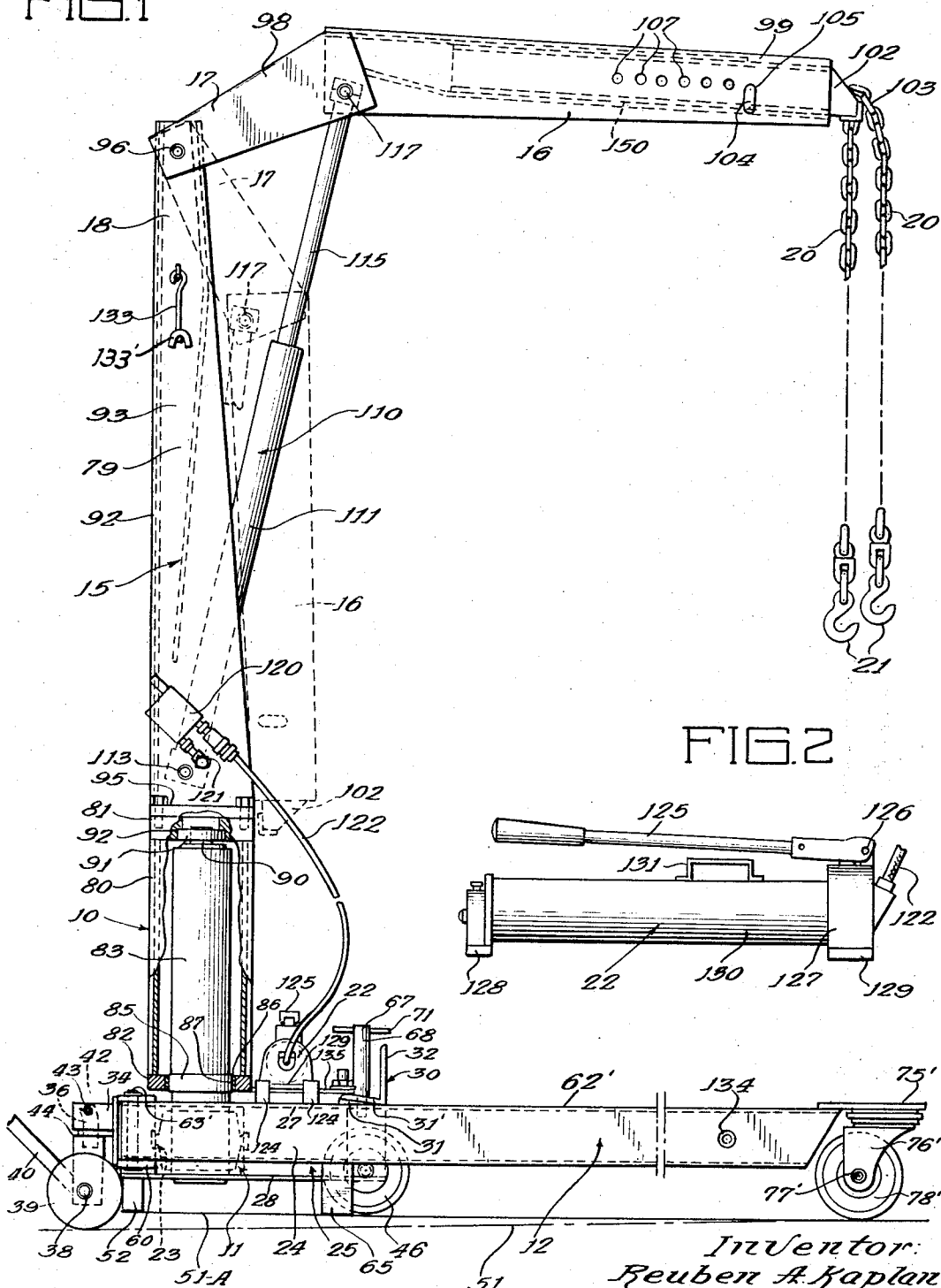
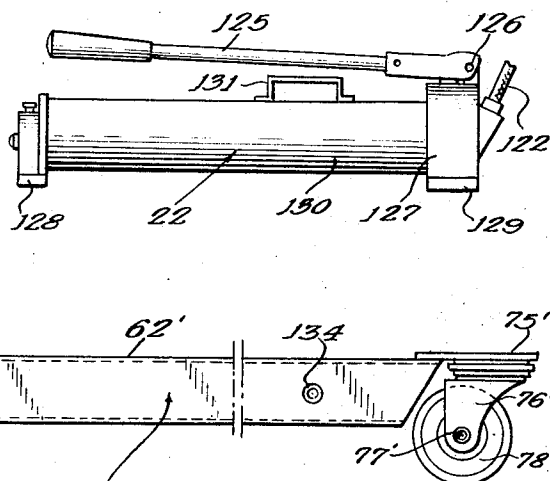


FIG. 2



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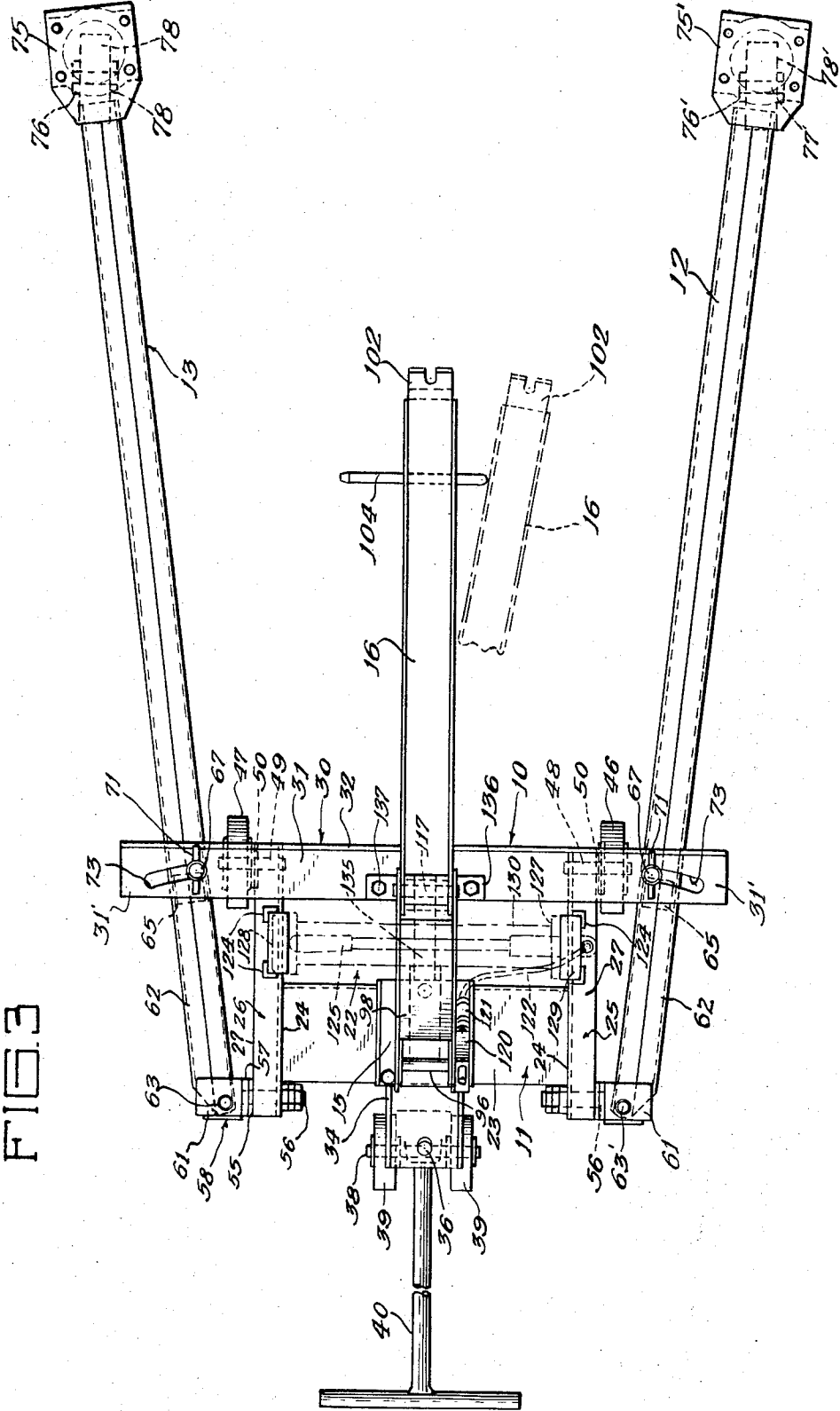
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FIG 3



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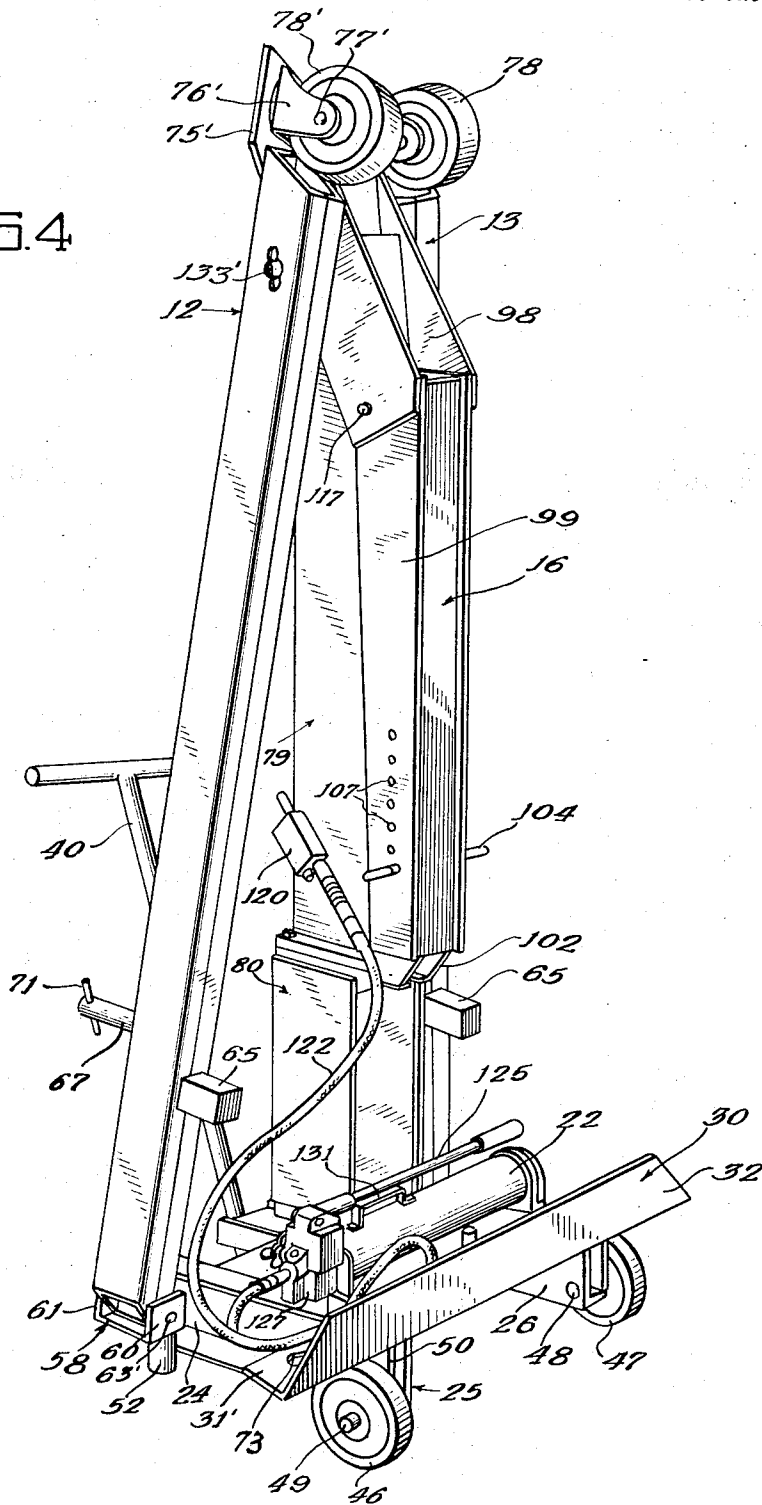
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FLOOR CRANE

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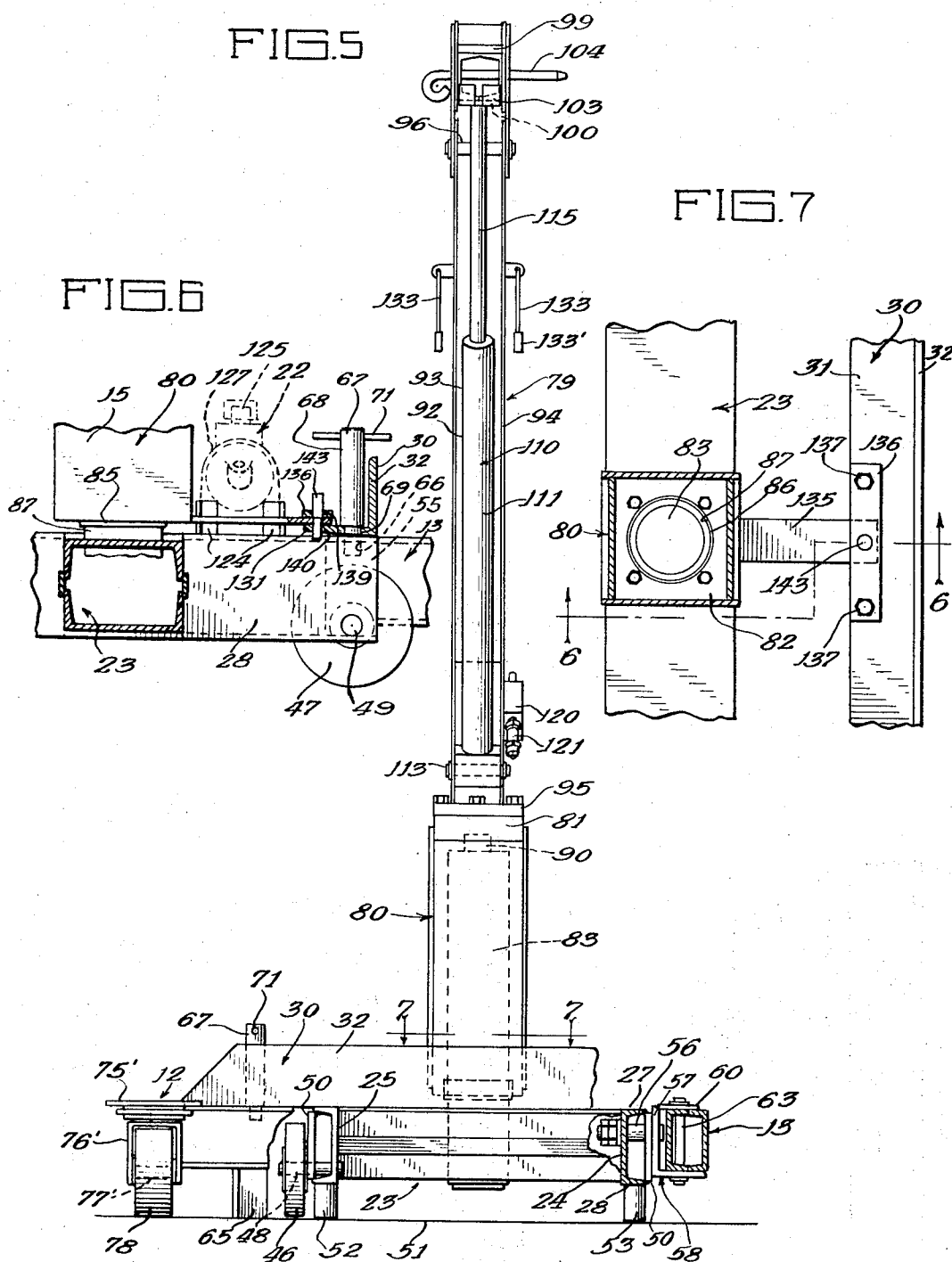
FIG. 4



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FLOOR CRANE

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FLOOR CRANE

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6 Claims. (Cl. 212-8)

ABSTRACT OF THE DISCLOSURE

The invention relates to the field of portable lifting devices or hoists for use in garages or other service areas of limited size wherein heavy inconvenient loads must be lifted without the benefit of an overhead crane. The crane has one set of rollers which are used when the boom and support legs are collapsed and which rollers become inoperative when the support legs are extended and other rollers carried thereon engage the supporting surface. The support legs are laterally adjustable for optimum stability under different types and kinds of loads. A manually operable pump means is stored on the crane but can be moved to remote areas for use when the crane is being used to raise dangerous or awkward loads.

This invention relates to a floor crane and more particularly to a collapsible and portable floor crane that is readily moved and easily stored in a minimum of space.

Various multipurpose relatively small cranes have been known and used heretofore and in fact are still in use today. Of the known cranes, many break down into two categories: those mounted on the bed of a truck; and those mounted on wheels for movement around a shop. Of these cranes there are certain disadvantages which limit their over-all usefulness. For instance, of those mounted on wheels, in order to be stable enough not to tip over when lifting a load, a relatively widespread set of legs must be provided extending outwardly from the mast of the crane. These legs interfere with ready movement of the crane from place to place and take up large spaces for storage of the crane when not in use. Many of the cranes of both types have the pumps or actuating mechanisms mounted on the frame or mast of the crane. This requires that the operator be in close to the crane when operating the lifting and lowering mechanism which might not be a convenient or safe place to be. In addition, some of the cranes of the wheel mounted type provide some sidewise swinging or pivoting of the mast and boom of the crane, but if care is not exercised the swing might be too great and the crane will tip over dumping the load.

It is therefore a principal object of this invention to overcome the above noted disadvantages of the prior known cranes.

It is an object of this invention to provide an improved floor crane that is readily folded into a compact and portable condition.

And another object of this invention is to provide an improved crane that has its actuating mechanism removable from the frame of the crane so that it can be placed at any convenient location for use in operating the crane.

Another object of this invention is to provide an improved floor crane that has means for limiting sidewise pivoting of the boom and mast so as to prevent tipping of the crane.

A further object of the invention is to provide an improved floor crane having means for collapsing the boom against the mast to eliminate projection of the boom in front of the crane when not in use.

And a further object of the invention is to provide an improved floor crane having novel means, not only for adjusting the stabilizing legs outwardly from the base for increasing the stability of the crane, but also for re-

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leasing said legs so that they can be folded against the mast to make it easier to move the crane around and easier to store the crane in a minimum of floor space.

Still another object of this invention is to provide an improved crane having a pump connected with the operating mechanism by a flexible connection that provides increased versatility to the device.

Further objects and advantages will become readily apparent from the following detailed description taken in connection with the accompanying drawings in which:

FIGURE 1 is a side elevational view of the floor crane with parts broken away and shown in section;

FIGURE 2 is a side elevational view of a pump of the type adapted for use with the floor crane;

FIGURE 3 is a top plan view of the floor crane of FIGURE 1;

FIGURE 4 is a perspective view of the floor crane with the boom and legs folded and latched to the mast of the crane;

FIGURE 5 is a front view of the floor crane of FIGURE 1 with parts broken away and in section;

FIGURE 6 is a cross sectional view taken along the line 6-6 of FIGURE 7; and

FIGURE 7 is a cross sectional view taken along the line 7-7 of FIGURE 5.

Referring to the drawings in greater detail and in particular to FIGURES 1, 2 and 3, the floor crane apparatus 10 consists generally of a base 11, a pair of outwardly extending legs 12 and 13 pivoted to said base, an up-standing standard or mast 15 on said base, a boom 16 pivoted at one end portion 17 to the upper portion 18 of the mast 15, hoisting chains 20 and hooks 21 on the boom, and a lever operated pump 22 removably mounted on said base 11.

The base 11 includes a box channel portion 23 having transversely disposed C-shaped angle irons forming sides 25, 26 secured at each end thereof and extending a short distance rearward and forward of said box channel 23. The C-shaped sides 25, 26 have their vertical walls 24 welded to the ends of the channel portion 23 with the top and bottom walls 27, 28 lying parallel to the plane of the base and extending outward from said channel 23. An angle iron 30 has a base 31 welded to the upper surfaces of the top walls 27 of the C-shaped sides 25, 26 with a wall 32 extending upward in a plane substantially perpendicular to the plane of the base 11. The angle iron 30 lies generally parallel to the box channel 23 and has its ends extending outward some distance beyond the C-shaped sides 25, 26. The extended ends 31' of the base 31 of the angle iron 30 are bent upward at an angle to the major portion of the base 31 for a reason to be described hereinafter.

A U-shaped support 34 is secured to the center of the box channel 23 and projects rearwardly therefrom to pivotally support the inverted U-shaped bracket 35 by means of a vertical pin 36 extending through aligned openings 37, 37' in the bases of the respective U-shaped parts. The opening 37' in the bracket 34 is oblong so as to provide some clearance between the pin 36 and the back wall of the opening 37'. The downwardly depending arms of the bracket 35 receive the axle 38 which has a pair of wheels 39 mounted thereon. A handle 40 is rigidly secured to the bracket 35 and extends upward at a convenient angle so as to be readily available for grasping. The pin 36 has a bend at 42 and has a transversely extending cotter pin 43 through the outer end portion thereof. When the axle 38 is substantially parallel to the channel 23, the outer end of the handle can be moved toward the mast 15 which will pivot the bracket 35 about its edge 44, pulling the pin 36 past its bend 42 through the opening 37' to raise the wheels off the ground for a purpose to be explained hereinafter.

The base 11 has a pair of wheels 46, 47 mounted on axles 48, 49 extending from the base walls of the C-shaped irons 25, 26 through reinforcing plates 50 welded between the top and bottom walls 27, 28 of said C-shaped irons 25, 26. The wheels 46, 47 are mounted outboard of the base 11 and are adapted to support the fore part of the floor crane base 11, and to roll freely on a supporting surface 51. A pair of locking blocks 52, 53 are welded to the rear portion of the respective C-shaped irons 25, 26 and extend downwardly from the bottom wall 28 thereof. The lengths of the blocks 52, 53 is somewhat critical in that when the wheels 39 and their supporting brackets 35 are in the position of FIGURE 4, the handle 40 will be disposed at approximately a 45° angle to the horizontal so that the wheels 39 will be in contact with the surface 51 with the blocks 52, 53 raised off the surface 51. The weight of the crane will be supported on the wheels 39 and 46, 47. The crane with the legs 12, 13 collapsed can then be wheeled around freely on the wheels 39, 46 and 47. With the handle 40 positioned up against the mast 15, the wheels 39 and bracket 35 will be pivoted about the edge 44 of the bracket (see the left hand portion of FIGURE 1) so as to lower the back part of the base 11 until the blocks 52, 53 engage the surface 51 which will in effect lock the crane 10 in that position against movement relative to the surface 51. The wheels 46, 47 and the blocks 52, 53 will support the crane when the blocks 52, 53 engage the surface 51.

The outwardly extending legs 12 and 13 are each independently pivoted at their rear end portion to the rear end portions of the C-shaped sides 25, 26 respectively, about two transversely disposed axes. That is, referring to FIGURES 1, 3 and 5, a support plate 55 is welded between the top and bottom walls 27, 28 of each of the C-shaped sides 25, 26 so that a pivot pin 56 can extend through the base wall of each C-shaped side and through the plate 55 into and through a vertical base wall 57 of a bracket 58. It is to be understood that leg 12 can be pivoted in and out relative to the base 11 completely independently of the leg 13 and vice versa. The faces of the base walls 57 of the brackets 58 and the plates 55 on the sides 25, 26 of the base 11 are in juxtaposed relation with each other and are adapted to slide relative to each other about the axis of the horizontally disposed pins 56. Each bracket 58 has a horizontally extending spaced apart top and bottom flange 60, 61 connected to the base wall 57. The rear end portion of the box channel 62 which runs the full length of and constitutes the major portion of the leg 13 is nested between the flanges 60, 61 of the bracket 58 on the right, as viewed in FIGURE 3. A pivot pin 63 passes through the flanges 60, 61 of the bracket 58 and through the top and bottom flanges of the channel 62 of the leg 13 so that the leg 13 can pivot relative to the bracket 58 about the axis of the pin 63. Leg 12 is comprised of a box channel 62' of the leg 12 so that the leg 12 can pivot relative to the bracket 58 about the axis of the pin 63'.

The legs 12 and 13 each have a support block 65 welded to the bottom walls of the box channels 62' and 62 respectively, both in vertical alignment with the fore part of the base 11. The blocks 65 extend downwardly slightly below the bottom surface of wheels 46, 47. When the legs 12 and 13 are in position with respect to the angle iron 30, the wheels 47 will be raised off the surface 51 as will be described more fully hereinafter. A threaded aperture 66 is formed both in the top walls of the legs 12 and 13 of the box channels 62', 62 respectively, each one in alignment with a threaded locking pin 67 extending downwardly from and through the base 31 of the L-shaped iron 30. Each pin 67 has a sleeve 68 forming an abutment 69 partway along the length of the pin 67. A

handle 71 passes through the sleeve 68 which is adapted to be grasped and turned for threading the appropriate pin 67 into or out of the threaded aperture 66 in the channel 62 of the leg 13 or in the channel 62' of the leg 12. The threaded end portion 72 of each pin 67 passes through an arcuate slot 73 formed in said base 31 of the L-shaped iron 30. Each slot 73 is arcuate in shape and has the center of the radius of the arc located at the axis of the pivot pin 63. With the appropriate pin 67 slightly unthreaded from the aperture in the leg 12 or 13, the leg can be pivoted outward and inward within the limits of the arcuate slot 73 and can be locked in any position along the slot 73 by threading the pin 67 down until the abutment 69 on the sleeve 68 engages with the base 31 to lock the leg 12 or 13 to the iron 30.

Each pin 67 can be threaded completely out of the aperture 66 either in the channel 62 of the leg 13 or in the channel 62' of the leg 12 so that the leg can be pivoted outwardly about the axis of the pivot 63, 63' to a position beyond the limit of the iron 30. The legs 12 and 13 can then be pivoted upwardly about the axis of the pivot 56 for a purpose to be more fully described hereinafter.

A horizontal plate 75 is secured such as by welding to the top wall of the channel 62 to extend beyond the end of the channel 62. Likewise, a horizontal plate 75' is secured as by welding to the top wall of the box channel 62' to extend beyond the end of said channel. Inverted U-shaped brackets 76 and 76' are mounted to the under-surface of the plates 75 and 75' to swivel or pivot about vertical axes passing through the brackets 76, 76' and the plates 75, 75' respectively. Horizontally disposed axles 77 and 77' pass between the legs of the brackets 76 and 76' for rotatably supporting wheels 78 and 78' respectively. Since the brackets 76, 76' with the wheels 78, 78' are mounted to swivel or pivot about the vertical axes relative to the legs 12 and 13, the wheels 78 and 78' will always align themselves to roll in the direction of movement of the floor crane. The legs 12 and 13 are moved relative to the base 11 with the pins 67 riding loosely in the arcuate slots of the iron 30, until the desired position of the legs is found, whereupon the pins 67 are turned down to lock the legs relative to the base 11. As the crane is pushed in a particular direction, the swivel mounted wheels 78 and 78' will align with the direction of movement permitting the crane to be moved over the floor. The legs 12 and 13 can be locked in position on the base with pins 67 or can be released and pivoted out and up out of engagement with the floor.

In the illustrated form, the legs 12 and 13 are channel shaped members which have the brackets 76', 76 and wheels 78', 78 swivel mounted on the outer ends of said legs respectively. It is to be understood that one of the legs 12 or 13 could be formed of an I-beam instead of the channel shaped member and the wheel on the outer end thereof could be rotatably mounted in a U-bracket, which bracket would be rigidly carried by the plate on the leg. Said wheel would be generally oriented to roll in the direction substantially parallel to the horizontal centerline of the crane. With one wheel swivel mounted, for instance, and one wheel 78' oriented generally in a forward direction, it is still possible to freely maneuver the crane about a work area.

The contact surfaces of the blocks 52, 53 on the base 11, the contact surface of blocks 65 on the legs 12, 13 and the outer wheels 78 and 78' all lie in a common plane designated as 51A in FIGURE 1. The diameter of the wheels 46, 47 is slightly smaller than the distance from the frame 11 to the plane 51A so that when the legs 12, 13 are in the extended position of FIGURE 1, the wheels 46, 47 will not contact the surface of the ground. That is, referring to FIGURE 1, with the handle 40 at 45° to the surface 51, the crane will be supported on the wheels 39, 39 and 78, 78', bearing on the surface 51. With the handle 40 up close to the mast 15, the wheels

39 will be raised so that the plane 51A will coincide with the surface 51 and the blocks 52, 53, 65, 65 and the wheels 78, 78' will support the crane in a locked relatively immobile position.

The mast 15 has an upper portion 79 connected to the boom 16 and a lower portion 80 pivotally supported on the base 11. The lower portion 80 is square in cross section and has a top plate 81 bolted to the upper portion 79 of the mast 15 and has a bottom plate 82 through which an upstanding pivot shaft 83 extends. The shaft 83 is carried by the box-shaped channel 23 on the base 11. The shaft 83 has a collar 85 near its lower end portion for slidably engaging a bearing 86 in the aperture 87 in the bottom plate 82. A reduced diameter pin 90 projects upwardly from the top surface of the shaft 83 and rotatably engages in a tapered bearing 91 positioned between said pin 90 and an undercut recess 92 formed in the top plate 81. The coaction between the shaft 83, the bearings 91 and 86 and the portion 80 of the mast 15 provides the means for providing the mast 15 and boom 16 with a limited degree of movement about the vertical axis of the shaft 83.

The upper portion 79 of the mast 15 is a U-shape in cross section with the U opening toward the front of the crane and having the base of the U forming the back wall 92 and the arms of the U forming the side walls 93, 94. The side walls 93, 94 have outwardly extending flanges 95 which are bolted to the top plate 81 of the bottom portion 80 of mast 15.

The boom 16 has a portion 98 angled downwardly from the plane of the main box-shaped body portion 99 and is pivoted to the mast 15 by means of a pivot pin 96 passing through the portion 98 and through the walls 93, 94 of the upper portion 79 of the mast 15. The portion 98 of the boom 16 is rigidly secured to the box-shaped body portion 99 forming the major part of said boom 16. A shelf 100 is secured between the two opposite walls of the box-shaped portion 99 so as to form a track within the confines of said boom 16. An extension arm 102 which can be box-shaped in cross section is adapted to telescopically slide within portion 99 on the track 100 formed therein and has a transversely disposed angled member 103 secured across the open end of said arm 102 with one wall of the member 103 extending upwardly. A chain 20 with the hooks 21 can be passed over the upwardly extending wall and can be dropped on opposite sides of the angled member 103. The arm 102 is secured to the boom 16 by means of a pin 104 which is passed through aligned apertures 105 formed in the opposite walls of the portion 99 of the boom. A plurality of apertures 107 are formed down the length of the side of the arm 102, which apertures are adapted to be selectively aligned with the aperture 105 so that the pin 104 can be passed therethrough to lock the arm 102 relative to the boom 16 in a desired position.

A hydraulic cylinder 110 is adapted to be connected between the portion 79 of the mast 15 and an intermediate portion of the boom 16 so that actuation of the cylinder will raise and lower the boom 16 relative to the mast 15 about the pivot 96. The hydraulic cylinder 110 is composed of a base portion 111 which is pivoted to the mast 15 by a pin 113 passing through said base 111 and the walls of the portion 79. Within the base portion 111 is a hydraulic piston, not shown, which is connected to the end of the piston rod 115 extending outwardly from the base portion 111. The outer end of the rod 115 is pivotally secured to the boom 115 by the pivot pin 117 passing between the opposite walls of the boom 16 near the juncture of the portion 98 and the portion 99 of said boom. A control valve 120 is mounted on the portion 79 of the mast 15 and is connected by appropriate piping 121 to the operative end of the piston in the hydraulic cylinder 110. The other end of the valve 120 is connected by flexible tubing 122 to the lever actuating pump 22 which is adapted to be mounted in the stored condition on a

set of brackets 124 secured to the top walls 27 of the sides 25, 26.

The pump 22 can be any one of several well known types commercially available and can have a lever 125 pivoted at 126 to one end portion 127 of the pump. A pair of mounting supports 128, 129 are connected to opposite ends of the pumping cylinder 130 which supports are adapted to nest in the brackets 124 carried on the base 11. The lever 125 can be either hand actuated or foot actuated depending upon the location and type of pump and the availability of a hand or a foot of the operator. A handle 131 is provided on the body 130 of the pump to be grasped for moving the pump from one location to another.

The pump 22 is adapted to be stored on the base 11 of the crane and when ready for use, the pump can be removed and placed on a floor, a table or any other convenient location away from the base of the crane so that actuation of the pump will not disturb the location of the crane relative to the work being lifted and will not require the operator to be so close to the work being lifted that he is needlessly exposed to the common hazards created by falling objects slipping off the chains on a crane.

With the pump 22 being operated, the hydraulic cylinder will raise the boom 16 from a collapsed position such as shown in dotted lines in FIGURE 1 against the mast 15 to any desired horizontal position. In use the hooks 21 on the chain 20 would be engaged with the work to be lifted with the boom 16 in some generally downwardly angled position. As the cylinder then raises the boom 16 toward a horizontal position, the chains will lift the work any desired amount from the surface 51 or from a frame supporting the work.

For storing the crane the handle 40 should be located in the 45° position with respect to the mast 15 so that the crane is supported by the wheels 78, 78' and 39. The boom 16 is lowered to the dotted line position of FIGURE 1 and the legs 12, 13 are unlocked from the angle iron 30 by backing the locking pins 67 out of the apertures 66 in the top surface of the legs. The legs 12, 13 are then pivoted about the axes of the pins 63, 63' until they clear the outer ends of the member 30. Once the legs 12 and 13 clear the outer ends 31' of the angle iron 30, the fore part of the base 11 will drop down until the wheels 46, 47 engage the surface 51. The legs 12, 13 are then raised by pivoting them about the axis of the pin 56 until the legs clear the upper surface of the members 30. It is noted that the preceding motion will remove the wheels 78, 78' and blocks 65 from any supporting relation of the crane. The crane is then supported on the wheels 39 and 46, 47. At this point the handle 40 can be kept in the 45° position with the crane movable on the wheels 39, 46 and 47 or the handle can be moved up to the mast 15 which raises the wheels 39 off the surface and permits the blocks 52, 53 to engage the surface 51 for holding the crane against movement relative to the surface 51. The legs 12, 13 can be moved inward about the axis 63, 63' toward each other and further pivoted about the axis of the pin 56 until they are in a substantially vertical position. Hangers 133 are carried by the sides of the mast 15 and are adapted to engage through openings 134 in the legs 12 and 13 with wing nuts 133' engaging the hangers 133 for holding the legs in the collapsed position best shown in FIGURE 4. With the handle 40 moved to a 45° angle, the wheels 39, 39 and 46, 47 will support the crane so that it can be wheeled about. When the collapsed crane is properly located for storage or for further use, the handle 40 is pivoted in close to the mast 15 which will lower the base 11 of the crane to the point where the blocks 52, 53 will engage with the surface 51 and will prevent further movement of the crane.

To set the crane up for the lifting function, the wheels 39 are engaged with the surface 51 by moving the handle 40 away from the mast 15 and into a position at an angle of approximately 45° with the surface 51. The base 11 is supported on the wheels 39, 39 and on the wheels 46,

47. The legs 12 and 13 are disengaged from the hangers 133 and are pivoted away from the mast 15 a short distance about the axes of the pins 63, 63'. The legs are then pivoted forward about the axes of the pins 56 until the legs clear the ends 31' of the member 30 and the wheels 78, 78' engage with the surface 51. Leg 13 is then moved inward toward the base 11 until the top flange of the I-beam 62 engages with the undersurface of the upturned ends 31' of the angle iron 30. The mast of the crane is rocked back and forth as the leg is forced under the angle iron until the pin 67 in the slot 73 in the angle iron 30 can be engaged in the threaded aperture 66 in the leg for locking the leg relative to the base 11. The rocking motion will raise the wheels 46 or 47 off the surface 51 so that the crane is now supported on the wheels 39, 39 and 78. The other leg 12 is assembled with the base in the same manner only from the other side so that the crane will end up supported on wheels 39, 39, 78 and 78'. The handle 40 being positioned at a 45° angle to the surface 51 permits the wheels 39, 39 and 78, 78' to contact the surface 51 to support the weight of the crane. It is believed to be obvious that when the legs 12, 13 are pivoted down so that the wheels 78, 78' contact the surface 51, the legs will not be readily aligned to slide sideways under the angle iron 30, but by rocking the crane side to side on the wheels 39 and 46, 47 the legs can be forced under the angle iron 30 and then further forced into position for locking to the base 11 by pins 67. As the base is rocked and the legs are moved under the angle iron 30, the wheels 46, 47 will be raised off the surface 51 and the fore part of the crane's weight will be supported on the wheels 78, 78' instead of on the wheels 46, 47.

By pivoting the handle 40 into the vertical position close to the mast 15, the wheels 39 will be raised off the surface 51 and the rear part of the crane will be supported on the blocks 65, 65 and 52, 53. With the crane supported on blocks 65, 65, 52, 53, and wheels 78, 78', a load can be raised or lowered with ease. With a load supported by the boom and chains 20 the handle 40 can be pivoted to the 45° position whereby the rear part of the crane is supported by the rear wheels 39 whereupon the crane with its load can be wheeled from place to place.

A means is provided for limiting the amount of pivoting of the mast 15 about its vertical axis. The mast 15 has secured to the forward central part of its plate 82 a forwardly projecting tongue 135 which extends to a point which slightly overlaps with the base wall 31 of the angle iron 30. A plate 136 is secured to the wall 31 in slightly spaced relationship by means of washers 137 fitting between the plate 136 and the wall 31 so that the tongue can fit and move between the plate 136 and the wall 31. An aperture 139 extends through the plate 136 and in one position is aligned with an aperture 140 in the overlapping end of the tongue 135. A pin 143 fits into the aligned apertures 139, 140 to thereby lock the mast 15 in its centermost position against rotation about its vertical axis relative to the base 11. The pin 143 can be removed and the mast 15 can be pivoted a limited number of degrees to the left or to the right about the axis of the mast 15. In either position, left or right of the center of the plate 136, the mast can be locked in that angled position by dropping the pin through the aperture 139 in the plate so that it will engage against the edge of the tongue so as to lock the tongue between the pin 139 and one of the washers 137.

Generally when the mast 15 and boom 16 are to be positioned at an angle with respect to the middle of the crane, by movement about the axis of the mast 15, either or both of the legs 12 and 13 can be pivoted outward with respect to the base 11 into a more extreme outward position in the arcuate slots 73. In this way the crane will be maintained in a stable position and will not be likely to tip over from the load that is being lifted by the crane and supported in a position off center with respect thereto.

With a load being carried by the crane it is possible to move the crane and load from one location to another by pivoting the handle 40 from the position close to the mast 15 to the position wherein the wheels 39 will engage the surface 51. Further movement of the handle toward the 45° position will permit the wheels 39 to raise the rear portion of the crane to lift the base off the blocks 65. The crane will be supported on the wheels 39, 39, 78, 78' as shown in FIGURE 1, so that pressure on the handle 40 can be applied to move and steer the crane and load about the shop. The crane can again be locked against movement by pivoting the handle 40 to the position against the mast 15 to raise the wheels 39 off the surface and again engage the blocks 65 with the surface.

While this invention is susceptible of embodiment in many different forms, there is shown in the drawings and will herein be described in detail an embodiment of the invention with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the embodiment illustrated. The scope of the invention will be pointed out in the appended claims.

I claim:

1. A floor crane comprising a base having plural roller means thereon adapted to engage a supporting surface, a vertically disposed supporting mast carried by said base; a boom pivotally mounted to the top portion of said mast; means for raising and lowering said boom relative to said mast, said means being adapted to move said boom into nesting relation close to said mast; a pair of elongate support members, a double pivot mounting for each supporting member connecting the supporting members to said base including a first pivot means whereby each supporting member can move between a generally upright storage position adjacent the mast and an extended generally horizontal position overlying the support surface and second pivot means whereby each supporting member when extended can vary in a horizontal plane in the angle at which it extends from the base whereby the span of the supporting members can be varied to straddle wheels of vehicles or other obstacles; means for locking said support members to said base with the elongate axis of said members lying substantially parallel to said supporting surface; roller means carried by the base and by the outer end portions of said support members and adapted to engage with said supporting surface; means for releasing said locking means to permit said support members to be pivoted with respect to said base; means carried by said base and by said support members whereby said support members can be pivoted upwardly out of the plane of said base; and means for securing said support members to said mast when in said upwardly pivoted position whereby said crane may be readily stored or moved around with a minimum space requirement.

2. The floor crane as claimed in claim 1 wherein the rollers on said support members when in contact with the supporting surface support the fore part of the crane and hold the forward roller means of the base out of contact with said supporting surface.

3. The floor crane as claimed in claim 2 wherein pump means are provided for raising and lowering said boom, and said pump means being supported on the supporting surface removed from said crane when in use.

4. A floor crane comprising a base, a vertically disposed mast carried by said base, a boom pivotally mounted to the upper portion of said mast, a pair of support members operatively carried by said base, protruding means carried by the forward part of said base and having locking means thereon, said support members extending forwardly of said base on either side of said mast and boom and being locked by said locking means to said protruding means, and means on said protruding means for permitting said support members to be laterally adjusted relative to said base upon loosening said locking means whereupon certain loads will be stabilized when

lifted, each support member being pivoted to the rear portion of one side of said base about a vertical and horizontal axis whereby said support members may first be pivoted outwardly beyond said protruding means upon releasing said locking means and then pivoted upwardly against said mast for storage.

5. A floor crane comprising a base, a generally vertically disposed supporting mast extending upwardly from said base; a boom pivotally mounted to said mast for movement to different extended positions from said mast; means connected between the boom and mast for positioning said boom; a pair of support legs for said base, a double pivot mounting for each leg connecting the legs to said base including a first pivot means whereby each leg can move between a generally upright storage position adjacent the mast and an extended generally horizontal position overlying a support surface and second pivot means whereby each leg when extended can vary in a horizontal plane in the angle at which it extends from the base whereby the span of the legs can be varied to straddle wheels of vehicles or other obstacles; a bracket extending from the base and having a length to overlie portions of both of said legs in all angled positions thereof when extended; and releasable fastening means between said legs and bracket to hold the legs in the desired angled position.

6. A crane having a vertically disposed supporting mast mounted on a base; plural roller means carried by said base for moving said crane from one location to another, and at least one pair of said roller means being carried by the forward part of said base and being adapted to contact a supporting surface; a boom pivoted at one

end portion to the upper portion of said mast; actuator means for raising and lowering the other end portion of the boom with the lowered position being in nesting relation with the mast; pump means for creating fluid pressure for said actuator means; flexible conduit means extending from said pump means to said actuator means; means for storing said pump on said crane when not in use, said pump being movable to an area removed from said crane whereby said pump may be actuated to raise and lower said boom; a pair of elongate legs pivotally mounted on a rearward portion of said base and in one position extending outwardly therefrom; roller means carried by the outer end portions of said legs for supporting the front portion of said base and for holding said at least one pair of roller means on said base out of contact with said supporting surface; and means for folding said legs against said mast whereupon said at least one pair of roller means on said base will operatively contact said supporting surface for supporting said crane for movement on said supporting surface.

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