

Pat. 7,681,747

Figure 10: Front view of the crane of figure 8.

assist manual rotation of it about the strut.

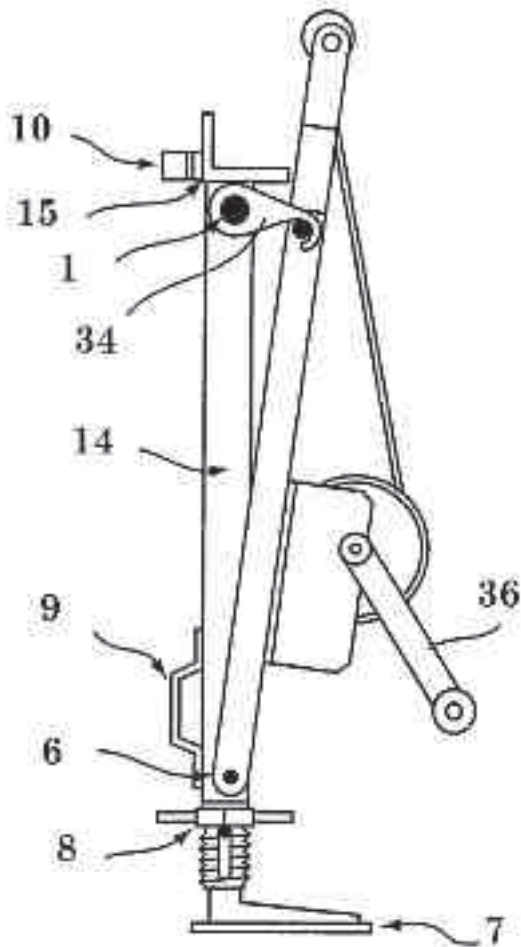
A boom 13 is pivotally attached to the strut 14 at a pivot 6. The pivot is near one end of the boom and adjacent to the threaded end of the strut 14, towards the foot plate 7.

The boom is pivotable about pivot 6 between an extended position shown in figure 8 and a retracted position adjacent to the strut shown in figure 11. When the crane is in use, the boom is extended to the position shown in figure 8. It is held in that orientation by tension wires 11 which are attached between a point 2 near the distal end of the boom and a point 1 near the head plate end of the strut 14. Means may be provided to adjust the length of the wires 11 to alter the angle of the boom 13 relative to the strut 14, such as a winch for example.

The strut is rotatable about its longitudinal axis relative to the foot and head plates, 7 and 15. Thrust bearings are provided in the strut/foot plate joint and at the strut/head plate joint to facilitate rotation of the boom 13 about this axis. A hand operated winch 5 is mounted on the boom 13, having an elongate handle 36. A wire rope or cable 12 wound around the winch passes from the winch over a pulley 3 at the distal end of the boom 13 and has a hook 4 at its free end. The hook can be replaced by any appropriate fitting to connect to an object to be lifted.

The crane is readily transportable with the boom in the retracted position shown in figure 11. A hook 34 is provided on one or opposite sides of the strut towards the head plate end for releasable engagement with a respective pin or pins provided on the boom 13. Conveniently, the hook(s) may be mounted at the tension wires attachment point 1 on the strut, and the pins at the tension wires attachment point 2 on the boom. Handles 9 and 10 are provided on the strut 14

continued on next page



Pat. 7,681,747

Figure 11: Side view of the crane in its portable configuration.

BUFFALO LIFTING & TESTING, INC.

DESIGN . FABRICATION . TESTING . CERTIFICATION.

WHEN YOU NEED A LIFT COME TO BLT, INC. WHERE OUR PRIORITY IS QUALITY PRODUCTS AND PROMPT DELIVERIES AT THE RIGHT PRICE!

WE HAVE A FULL LINE OF STANDARD PRODUCTS WITH THE ABILITY TO CUSTOM DESIGN FOR YOUR SPECIFIC NEEDS. ALL OUR PRODUCTS MEET OR EXCEED ASME B30.20 AND OSHA STANDARDS.

**PALLET LIFTERS . LIFTING BEAMS
C HOOKS . 3 & 4 POINT BEAMS
TELESCOPING LIFTERS
SLINGS . WIRE ROPES**

WWW.BUFFALOLIFTING.COM
1.877.BEAMS.4.U (232.6748)
69 ORCHARD ST. FREDONIA, NY 14063
PHONE: 716.672.6071 FAX: 716.672.8507