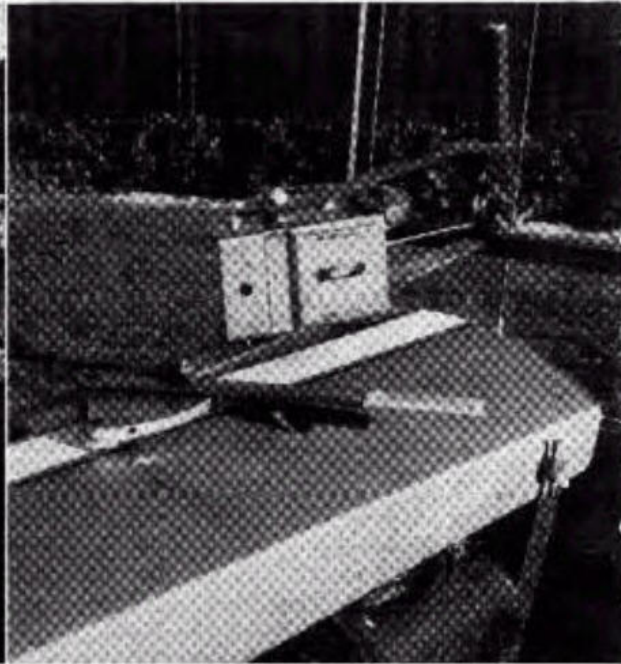


Give Your Garden



Heavy loads lift high on this detachable rig. Hand winch rides linkage between tilt-control handle and

lift frame (right). With handle in this position, forks slant down to slide under load or pallet, then tilt up.

By ELDRED V. ADAMS

An easy-to-assemble fork lift adds a lot of muscle to any yard trac, letting you hoist, load, and stack bulky items that would otherwise be backbreakers.

Two handles, within easy reach at the top of the hood, control the rig's dual action. One pivots the entire frame to tilt the forks down (for picking up a load) or up (for carrying it). The other is the handle on an inexpensive winch, for winding in a cable that passes over two pulleys and ties into a fork plate. Skate wheels guide this plate up a channeled frame.

When the tractor is needed for other uses, the lift is easily detached by removal of three to five bolts (depending on whether you detach the bottom brackets or just pull the pivot bolts). Only the tilt-control plate and handle remain on the tractor.

Besides the two pulleys and four skate wheels, you'll need 1" and 1½" flat steel,

⅜" thick; 1" and 1½" angle; 2" channel; and ⅜" steel (or aluminum) plate. You can cut the stock with hand tools; if you don't own welding equipment, just take the pieces to a local shop for assembly.

Start with the frame. Place the two channel uprights on the floor and position the three crossbars. The top one can be solid, or a hollow square formed by welding two 1" angles together. After checking that the crossbars are at right angles and channels are parallel, clamp the assembly for welding. After welding, check parallel again—it's essential to proper function of the lift plate.

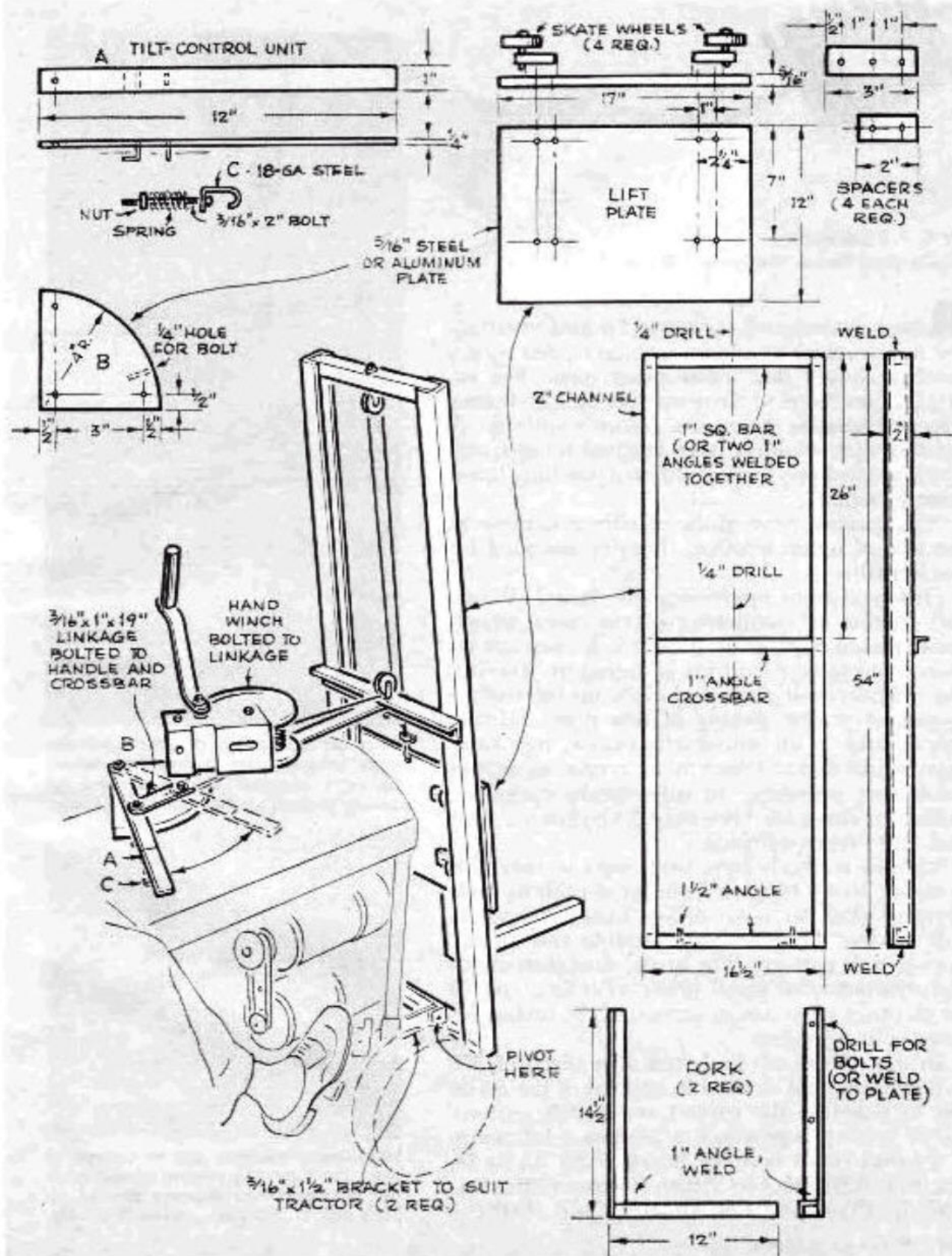
Two angle brackets must be welded to the bottom bar to provide a pivoting attachment to the tractor. The spacing of these depends on your tractor. For the Ward's 10-hp. Squire shown, they're 11" apart. Bolt a pulley at the center of the top bar and drill for another, below it, on the middle bar.

The wheel brackets are bolted to the lift plate as shown. I chose ⅜" aluminum for the plate because it won't rust

[Continued on page 184]

Tractor a LIFT

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Give Your Garden Tractor a Lift

[Continued from page 136]

and is easy to work. The last two wheels must be added with the plate positioned on the channels. All four skate wheels needn't touch at once; weight shifts of your load will cause different wheels to come into play.

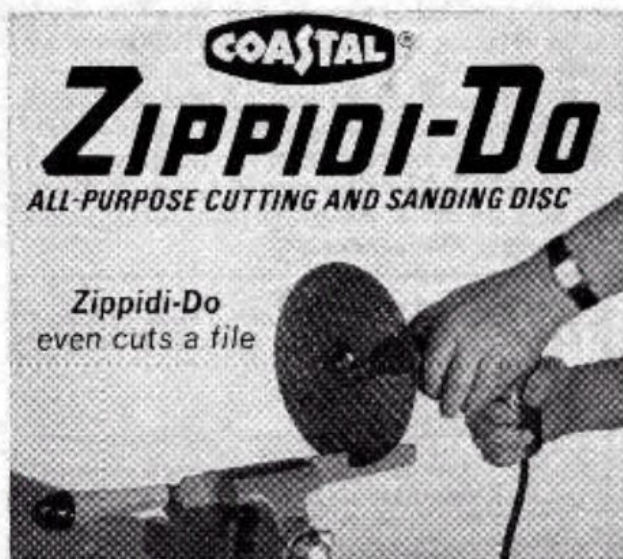
Lift and tilt control. The mounting holes and linkage dimensions of this assembly will have to be adjusted to your tractor. The first step is to cut the quarter circle from 3/16" plate and drill the three through holes. The one in the square corner is for the bolt that pivots the control handle. The other two are for mounting on the hood. Note, too, that there's a hole drilled in the curved edge of the plate to engage a spring-loaded bolt for locking the handle in its rear position. This frees your hands for steering, once the load is lifted and tilted backwards against the frame to hold it in place. Wrap 4" of the handle's free end with tape to form a grip.

To connect the handle to the lift frame, cut a linkage (from 1" flat steel) to rough length, drill one end and temporarily bolt it under the frame's cross angle. Now, try various positions for pivoting the other end to the control handle to achieve the farthest back-and-forth travel of the lift frame. Drill the linkage for mounting the winch, and permanently connect the linkage to the frame with the same bolt that attaches the upright pulley.

Finally, weld or bolt the L-shaped forks to the lift plate, and run the winch cable through the pulleys to the lift plate in its lowest position. The weight of this assembly is, of course, sufficient to keep it at the bottom of the frame until the winch is turned.

I coated all exposed steel with rust primer, then finished the rig to match my tractor.

How much will it lift? I've tested my rig up to 250 pounds. The limiting factors aren't so much the frame or the winch as the trac itself—especially your front tires. But you'll find the capacity ample for jobs around your home, such as loading ash and garbage cans on a pickup truck, moving sacks of concrete or trucking fireplace logs. Pallets are easily made from scrap lumber. **DE**



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