



Now you can have
small quantities of
concrete whenever
you need them

Concrete by the bucketful

BY MANLY BANISTER

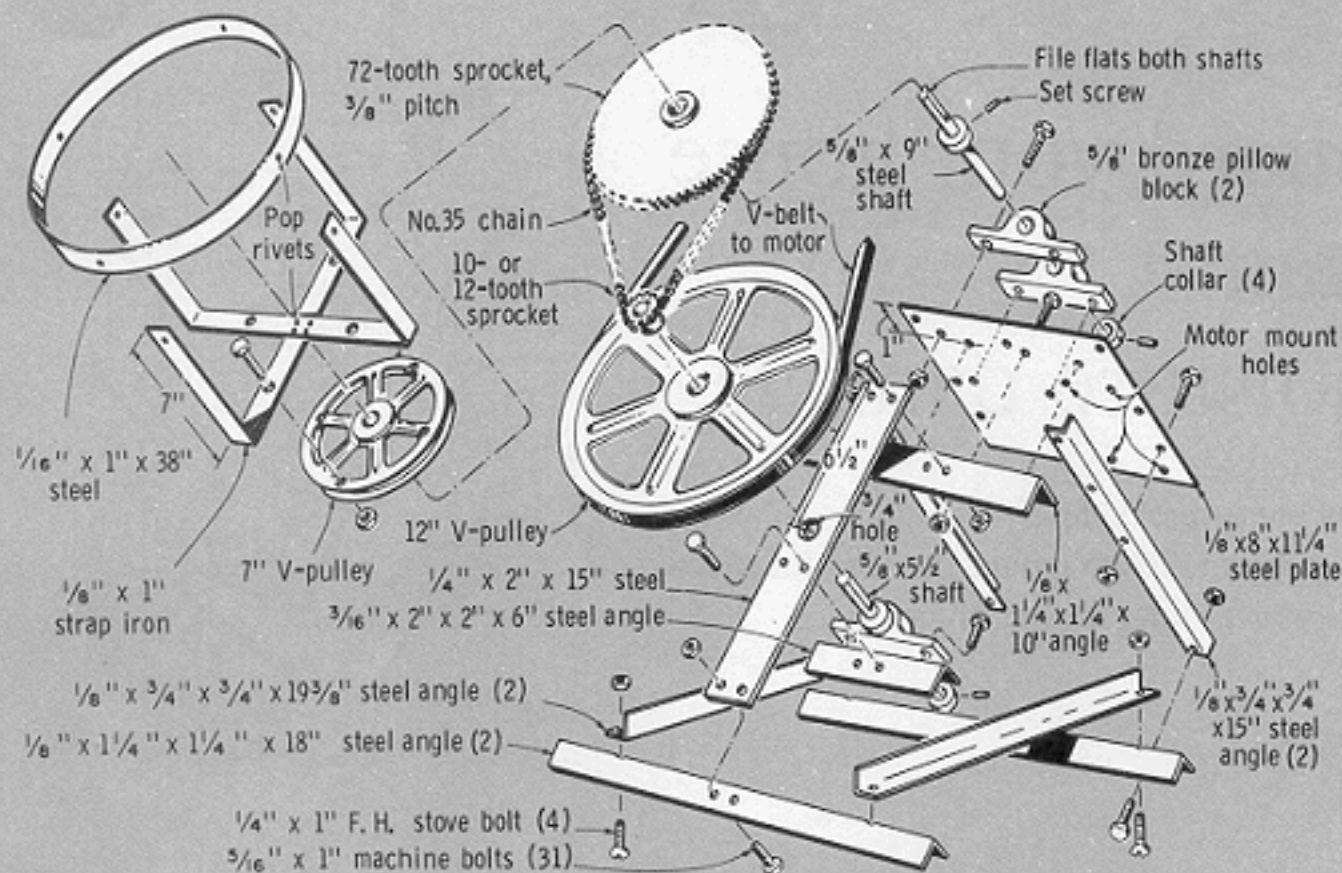
■ WHEN THE JOB requires a yard or two of concrete, stepping to the phone and ordering it already mixed is certainly the simplest way. But when the minimum amount that they'll deliver is 10 times more than you'll need to set a yard-light post or patch a driveway, this small-batch portable mixer comes into its own. The mixing bucket is the dumping bucket, since once the concrete is mixed, the bucket can be lifted out and the mix poured directly into your form.

The bucket can be a 5-gal. paint or chain pail; make sure it has a sturdy handle. Since the bucket is tilted at a 45 deg. angle, less than half of its volume may be utilized for mixing. The mixer will churn out about $\frac{1}{8}$ cu. ft. of concrete at a time. A good mix would be 7 lbs. of cement, $\frac{1}{8}$ cu. ft. of sand, $\frac{1}{4}$ cu. ft. of gravel and $\frac{1}{2}$ gal. of water.

A $\frac{1}{8}$ -hp. washing-machine motor will power the mixer nicely. You'll also need bicycle sprockets and chain, or the $\frac{3}{8}$ -in.-pitch sprockets used here, bronze-bearing pillow blocks and a 12-in. V-pulley. Also a 7-in. pulley just to provide a collar for attaching the basket to the drive shaft, a 1 $\frac{5}{8}$ -in.-motor pulley, steel angles and plate, strap iron and cold-rolled steel for shafts. The choice of sprockets and pulleys must be based on a speed reduction from motor rpm to 40 rpm. or less for the bucket. Machine bolts, stove bolts and rivets are used for joining, but $\frac{3}{16}$ -in. stove bolts can replace the rivets.

The bucket basket is assembled with Pop rivets and joined to the 7-in. pulley with $\frac{1}{4}$ x 1-in. stove bolts and lockwashers. If you don't have such a pulley on hand and can weld, it will be cheaper to weld a 6-in. square of $\frac{1}{8}$ -in. steel to

Brought to you by Procut Portable Sawmills



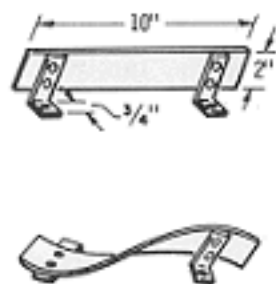
the bucket drive shaft. If you use the pulley, file a flat on the shaft long enough to include the hubs of both pulley and large sprocket. The same goes for the end of the 12-in.-pulley shaft, which also accommodates the small sprocket. The single pillow block for this shaft should be non-self-aligning.

The frame is put together with $\frac{5}{16}$ x 1-in. machine bolts and $\frac{1}{4}$ x 1-in. stove bolts.

The mixing blades in the bucket are stationary and are designed for clockwise rotation. Cut the three blades from 16-ga.-or-heavier sheet steel and rivet or bolt on the strap-iron or corner-iron stanchions about $\frac{1}{2}$ -in. from each end.

Bend each blade by hand away from the stanchion side, with slightly more of the curve toward the end that will be facing the open end of the bucket. Grip this outside end in a vise and twist the opposite end clockwise until the right-angle stanchion feet rest flat on the curved bucket wall. Install the blades with rivets or $\frac{1}{4}$ x $\frac{5}{8}$ -in. machine bolts. With the latter, flow solder around each bolt head on the outside to prevent leaks.

See also: birdbath; concrete; garden ornament; patios; remodeling ideas; retaining walls.



The mixing bucket is equipped with stationary blades that are bent by hand and bolted or riveted inside

