

Weigh Your Anvil Without A Scale!

by Ed Crane, Northwest Regional Coordinator

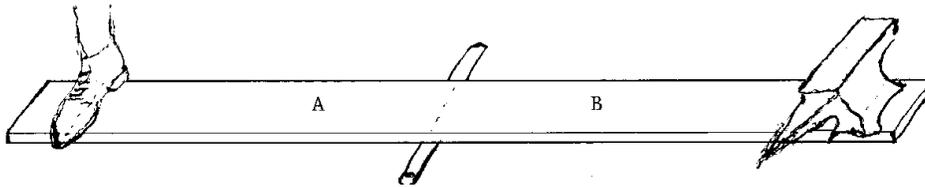
That's impossible!?

No, it's definitely possible using some principles of physics that I learned back in college, many years ago. All you have to know ahead of time is your own weight and how to use these principles of physics.

The physical principle involved is simple: The weight in pounds(your weight) multiplied by its lever arm length in inches is a measure of force and if balanced with an equal force with a known lever arm we can calculate the weight of the second object(your anvil).



Well, that looks a little complicated to set up! So, let's make it simple. Start with a flat surface, a 4- or 5-foot length of 2x4 and a piece of 3/4" or 1" pipe at least 6" long. Now balance the anvil on one end of the 2x4 using the pipe as a balancing point and you stand on the other end of the 2x4. Do something to keep the pipe from rolling!!



Now you must adjust your position and the position of the pivot point until you are balanced. Naturally if you weigh more than your anvil you will have to be standing closer to the pivot point than the anvil is to the pivot point. It's preferable to balance on one foot because you can more accurately locate the center of your weight on the 2x4. Now get a helper to mark on the 2x4 the pivot point, the center of your foot on the 2x4 and the center of the anvil on the 2x4.

Now measure your lever arm "A" and the anvil's lever arm "B". Now calculate:

Your weight X your lever arm "A" in inches and
divide by lever arm "B" in inches.

Voila!

This is the weight of your anvil. Of course the accuracy of this method depends a lot on how carefully the procedure is done but if done with reasonable care it should be within 1 - 2 % of perfect.

Editor's comment: Sounds like a good idea, but I'd use about a 4x6 or 2x8; I'm not sure a 2x4 would hold an anvil and me both. Got to watch them extra pounds! I just had a thought (rare event!): If you don't have a scale, how do you know how much you weigh?