Parking Brake Adjustment DIY

BMW 330

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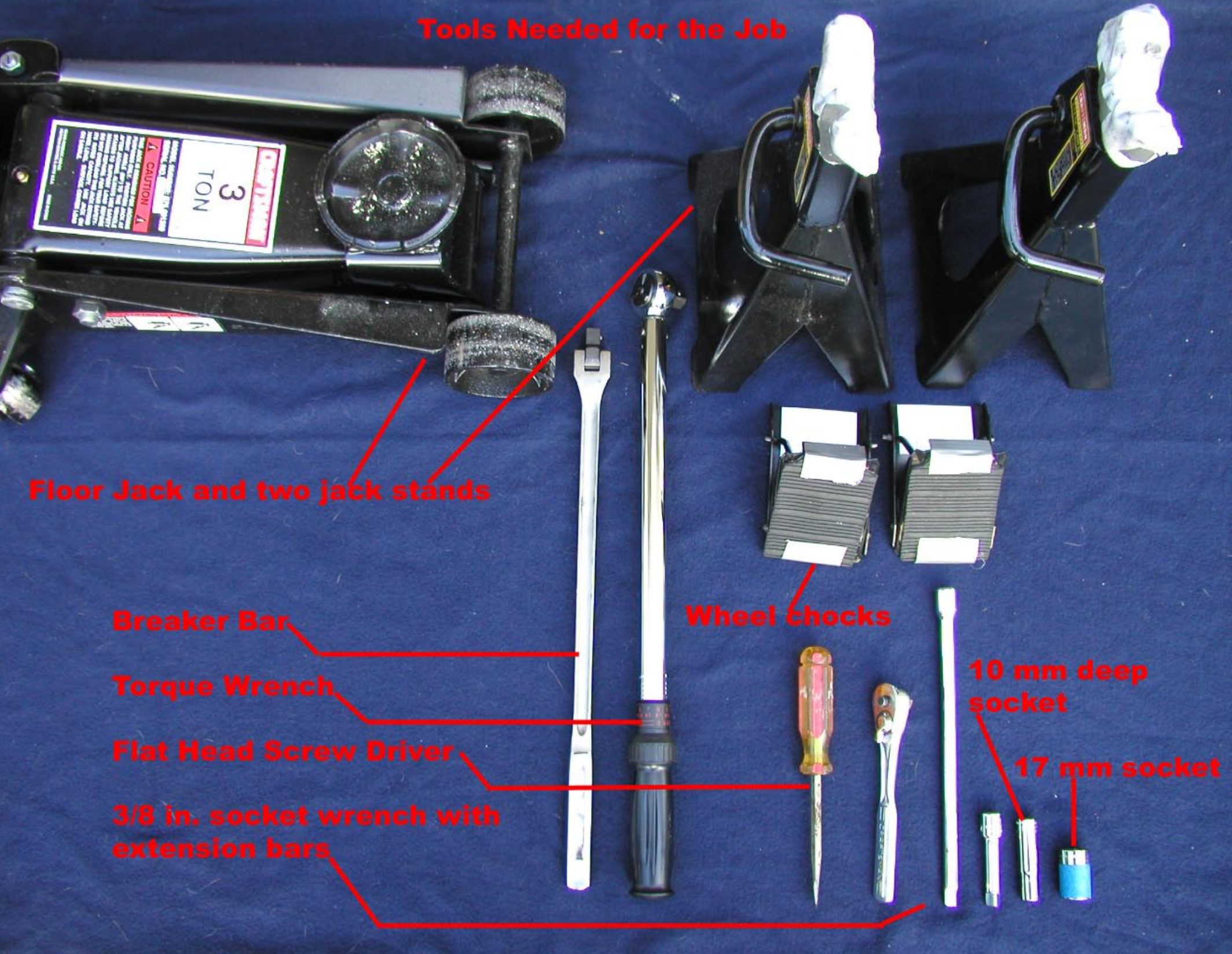

Tools Needed for the Job
3 TON
CAUTION
Floor Jack and two jack stands
Wheel chocks
Breaker Bar
Torque Wrench
Flat Head Screw Driver
3/8 in. socket wrench with extension bars
10 mm deep socket
17 mm socket

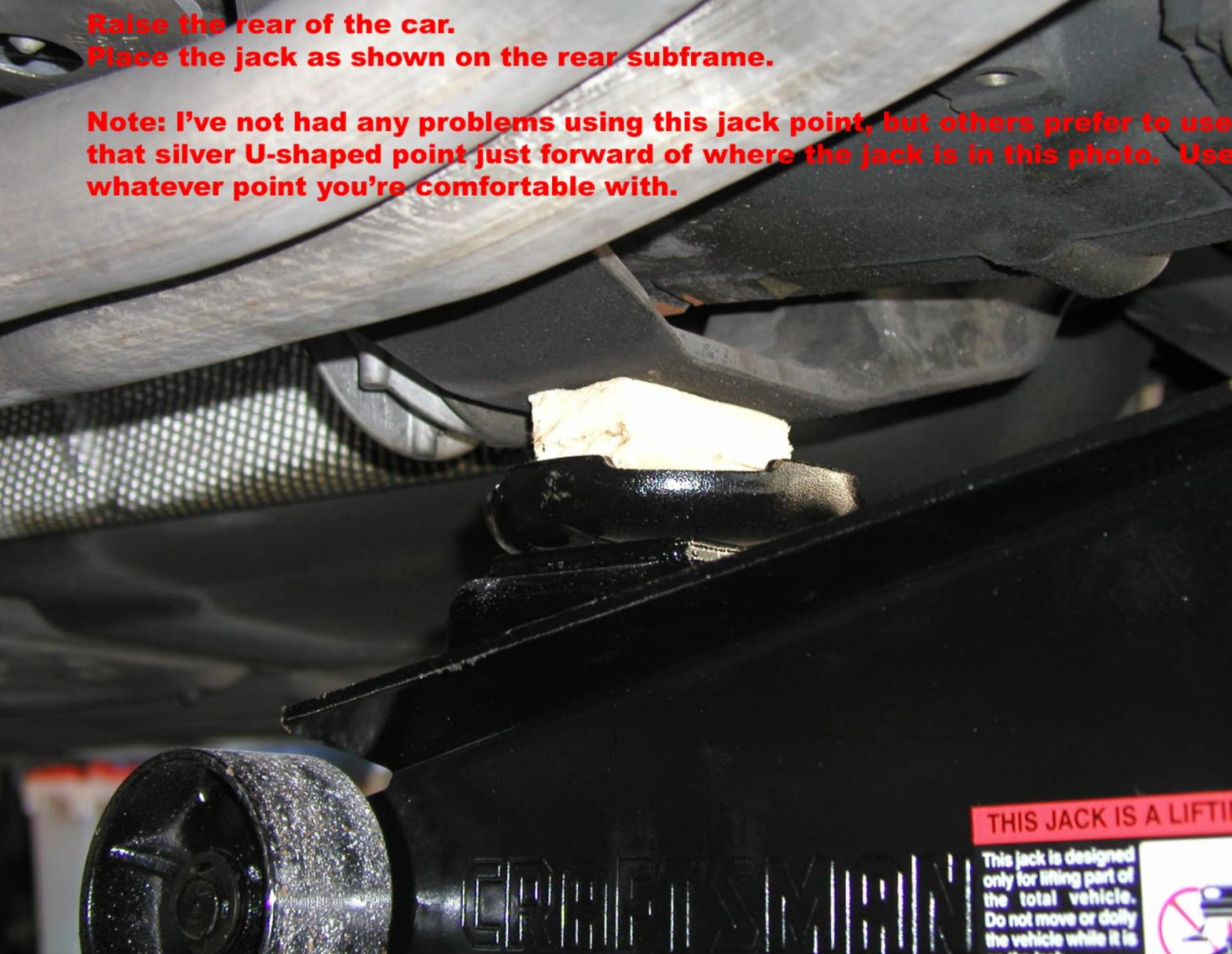

Remove the parking brake lever boot from the console.
There are two clips at the front and back of the boot that hold it in place.
Just pry it up from the back using your fingers.


Cable tension adjustment nuts
Turn the boot inside out, folding it forward over the hand brake lever to gain access to the cable tension adjustment nuts.

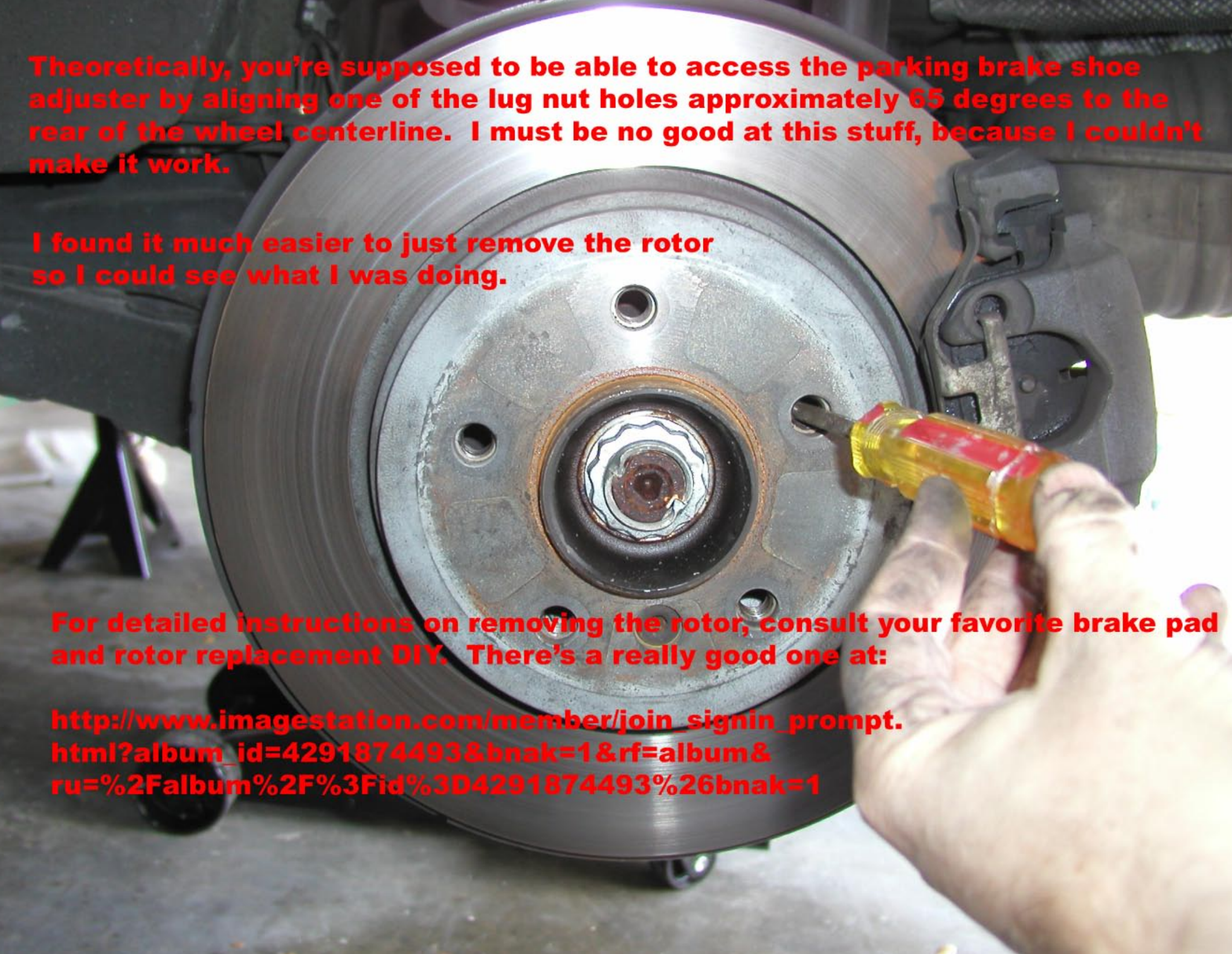

Use a 10mm deep socket wrench
to loosen the brake cable nuts until
the cables are completely slack

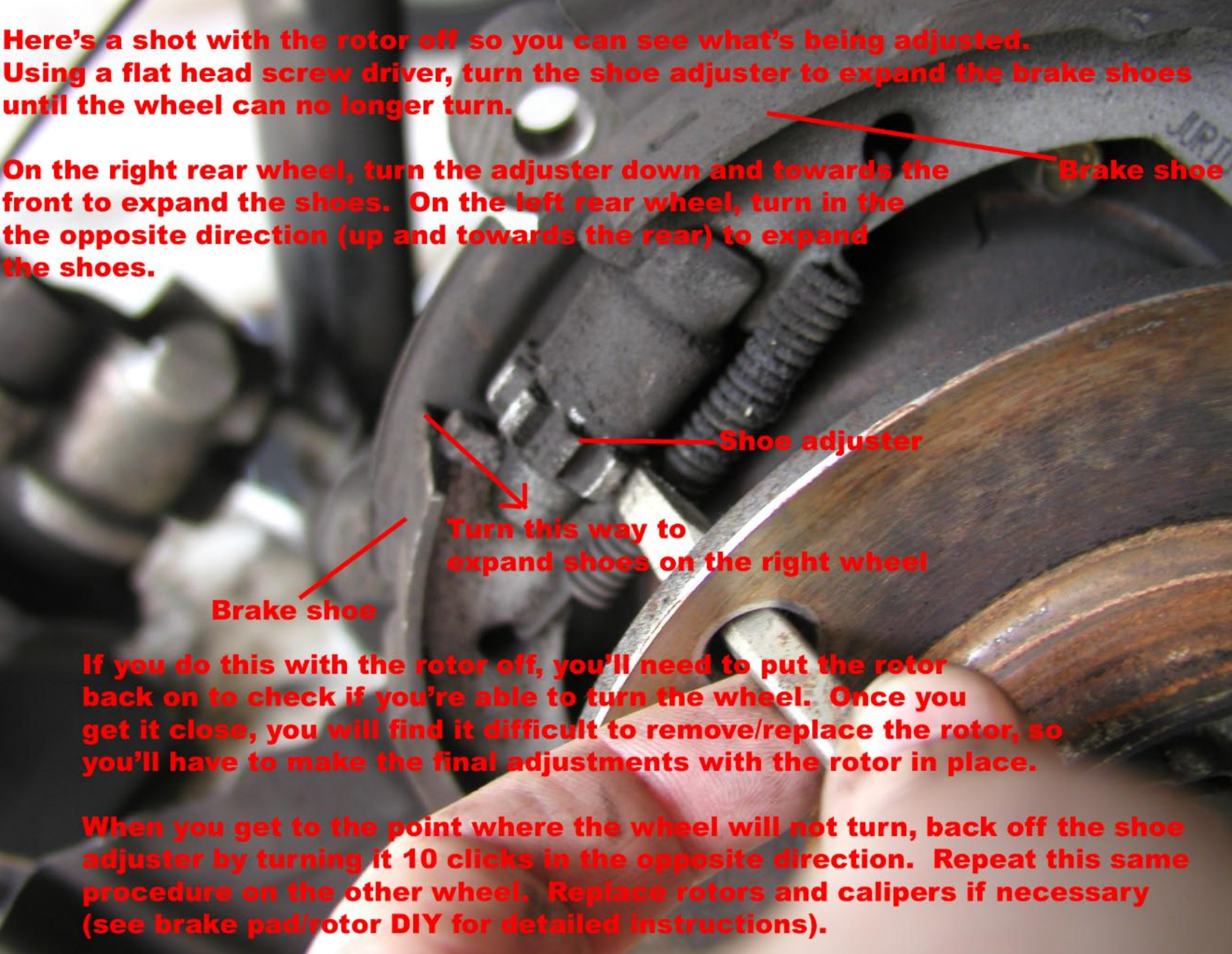

The nuts are loose enough when
you can feel obvious slack in the
cable when you pull on them


Use a 17mm socket and a breaker bar to loosen the lug nuts on both rear wheels.
Note: The Bently service manual describes a procedure in which only one lug nut is removed from both wheels and the brake shoe adjuster is accessed through the lug nut hole.
I had zero luck with that approach and ended up removing both wheels instead, so that's what I've described here.


Raise the rear of the car.
Place the jack as shown on the rear subframe.
Note: I've not had any problems using this jack point, but others prefer to use
that silver U-shaped point just forward of where the jack is in this photo. Use
whatever point you're comfortable with.
THIS JACK IS A LIFTI
This jack is designed
only for lifting part of
the total vehicle.
Do not move or dolly
the vehicle while it is

Place jack stands at the rear side jack points to support the car. You should leave the jack in place as well as a backup.


Theoretically, you're supposed to be able to access the parking brake shoe adjuster by aligning one of the lug nut holes approximately 65 degrees to the rear of the wheel centerline. I must be no good at this stuff, because I couldn't make it work.
I found it much easier to just remove the rotor so I could see what I was doing.
For detailed instructions on removing the rotor, consult your favorite brake pad and rotor replacement DIY. There's a really good one at:
http://www.imagestation.com/member/join_signin_prompt.html?album_id=42918744 93&bnak=1&rf=album&ru=%2Falbum%2F%3Fid%3D4291874493%26bnak=1


Here's a shot with the rotor off so you can see what's being adjusted. Using a flat head screw driver, turn the shoe adjuster to expand the brake shoes until the wheel can no longer turn.
On the right rear wheel, turn the adjuster down and towards the front to expand the shoes. On the left rear wheel, turn in the the opposite direction (up and towards the rear) to expand the shoes.
Brake shoe
Shoe adjuster
Turn this way to expand shoes on the right wheel
Brake shoe
If you do this with the rotor off, you'll need to put the rotor back on to check if you're able to turn the wheel. Once you get it close, you will find it difficult to remove/replace the rotor, so you'll have to make the final adjustments with the rotor in place.
When you get to the point where the wheel will not turn, back off the shoe adjuster by turning it 10 clicks in the opposite direction. Repeat this same procedure on the other wheel. Replace rotors and calipers if necessary (see brake pad/rotor DIY for detailed instructions).

Replace the rear wheels. The lug nuts should only be hand tightened at this point. We'll torque them to the proper specs once the car is on the ground.


Working inside the car, pull the parking brake lever several times to seat the cable. Then pull the parking brake lever up two notches. Tighten the cable tension adjustment nuts until it is just possible to turn the rear wheels with slight resistance.
Release the lever and make sure the wheels turn freely.
Turn on the ignition and pull up the parking brake lever one notch. Make sure that the brake light comes on.
Pull the brake lever up one more notch and check that the rear wheels do not move and that the brake warning light stays lit.

Reinstall the parking brake boot in the console.
It just snaps in to place.


Lower the car and retorque the lug nuts to 88 ft-lbs.
That's it! The full stroke of the parking brake handle should now be no more than 7 or 8 clicks.