

### **Replacing the Raking Finger**

**This is a complicated procedure that requires partially dismantling the machine. It is recommended that this procedure be done at our repair facility.**

**Please Note: Take care not to lose screws or other small parts you may encounter**

1. Set the Coin Selector Knob to "C". Set the Coin Gauge Knob to the Dime setting.
2. Open the top Tray and remove the two screws holding the Tray/Spout assembly onto the machine. Set the Tray/Spout assembly and the screws aside.
3. On the upper right side of the machine are the Coin Gauge and the Coin Gauge Cover. Remove the Coin Gauge Cover from the machine, exposing the Coin Gauge. Set the Cover and its screws aside.
4. You will see a vertical screw with a spring around it located between the Coin Gauge Assembly and the Silver Hopper ring. This is the Hopper Screw. Remove this screw and spring and set them aside.
5. The Coin Gauge Assembly is held on by 2 screws, one in front and one behind. The Coin Gauge may also be seated on pins. Remove these two screws and the Coin Gauge Assembly. Please Note: There is a small metal Hopper Plate that is also attached to the rear screw; set it aside with the screws.
6. Under the Coin Gauge Assembly, there is a T-shaped bar called the Guide Rail. The small tab on the top of the Guide Rail fits into the groove on the underside of the Coin Gauge Assembly. Make note of the position of the Guide Rail, as you will need to make sure it's in the same place when you put everything back together.
7. On the top left of the machine is the Meter. Remove the 4 screws that hold the Meter and remove the Meter. Set the Meter and its screws aside.
8. There is a large metal ring on the top of the machine called the Hopper. It is held on by 2 pins, one on either side of the machine. You will need to remove the pin on the left side of the machine (the side where the power switch is). To do this, turn the machine upside down. There is a small round hole on the side where the switch is. You can see the underside of the disc through this hole. You may also be able to see the end of the pin through the hole. Take a screwdriver whose end fits through the hole and pry against the tip of the pin so that it partially pops out of its hole on the outside.
9. Once you have a little bit of it popped out, take a pair of pliers and pull the pin out the rest of the way. Take care as the pliers may slip off the end, and it may take several tries to get it out.
10. Once the pin is pulled out, turn the machine right side up again, and pull up on the left-hand side of the Hopper, and it should lift out of the machine. You may need to work it out a bit, off of the other pin on the right side. Set the Hopper aside.
11. Once the Hopper is removed, locate the star-shaped gear on the top front of the machine. There is also a plastic gear mounted above the Star gear. Remove the plastic gear using a 1/16" Allen wrench to loosen the set screws. Do not remove the set screws from the gear, just loosen them. Pull the gear off of the shaft.
12. There is a nut holding the Star gear onto the machine. Use a pair of needle-nose pliers to hold the Star gear in place so it does not turn. Use a 5/16" wrench to loosen the nut and remove it and the Star gear from the shaft. There may also be a metal washer under the nut. Set the Star and nut aside, and washer if there was one.

13. Locate the Raking Finger, which is directly under where the Star was. The Finger sticks out over the Disc. Remove the 2 screws that hold the Finger on, and remove the Finger.
14. Install the new Raking Finger using the 2 screws. Slide the Drive Star over the shaft (and the metal washer if applicable) and screw on the nut partway. Take the needle-nose pliers and hold the Star gear so that one of the points is pointing directly to the back of the machine. Tighten the Nut. When you release the pliers, the Star gear should remain oriented with 1 point pointing directly toward the back of the machine. You may need to loosen and tighten it a few times to get it right. Once tightened, flip the gear with your finger a couple times to make sure it turns properly.
15. Slide the small gear back onto the shaft and tighten the set screws. We recommend giving the first one a couple turns, and then flipping the Star gear until you see the other set screw, and giving it a couple turns, and so on until they are both firm. **DO NOT OVERTIGHTEN!** You need them firmly set, but too much may strip the threads.
16. Pick up the Meter and loosen the 2 set screws on the Meter Bevel Gear, and slide it along the shaft toward the Meter housing. Re-attach the Meter to the machine with its 4 screws. In general, simply center the Meter on the platform, and tighten the screws firmly, taking care not to overtighten them, as you may damage the Meter's base.
17. Next, you need to mesh the 2 gears. You don't want them to be very tight, or very loose. They should be close enough not to slip, yet still have just a tiny bit of play. Slide the Meter Bevel Gear toward the Drive Star Shaft Pinion Gear until they are meshed, and tighten the Bevel Gear's set screws. As before, we recommend giving the first one a couple turns, and then flipping the Star gear until you see the other set screw, and giving it a couple turns, and so on until they are both firm. **DO NOT OVERTIGHTEN!** You need them firmly set, but too much may strip the threads.
18. Test your Gears and Meter by resetting the meter to zero, and then flipping the Star gear with your finger, while watching the gears for good mesh, and checking the Meter for proper counting. Adjust as necessary.
19. Replace the Coin Gauge Assembly with its 2 screws (and seat it on the pins if applicable). Remember to attach the small Hopper Plate that goes under the rear screw, and the Guide Rail that goes under the Coin Gauge. The Guide Rail can be a little tricky, as you want to make sure it stays seated in the groove while you attach Coin Gauge Assembly. Once the screws are tight, turn the Coin Gauge knob and make sure the Guide Rail moves back and forth freely.
20. Put the Hopper back on by sliding the right-hand side down between the Disc and the side wall, and hooking the hole in the Hopper over the pin on that side. Push the left side down as well, and tap the pin back into place. Take care as the pin starts to contact the Hopper that you get the pin into the hole. Don't tap it into the side of the Hopper. Once the pin is in place, the Hopper should slightly rotate on the pins front-to-back. There is a little horn that sticks out of the front of the Hopper. The underside of the Horn should rest flat on the cam at the end of the Coin Gauge.
21. Take the Hopper Screw (with the spring around it), and replace it. It goes through the small bracket on the Hopper and screws into the Hopper Plate. It can sometimes be difficult to hold it in place and push it down enough to get the screw to go in, so be patient. (It may also be necessary to loosen the screw holding the Hopper Plate to line the holes up; just remember to tighten it again once you're done.)
22. Once the Hopper Screw is in, it should be screwed down all the way, but **DO NOT OVERTIGHTEN IT**. It can easily strip out.
23. Replace the Tray/Spout assembly with its 2 screws.

If all went well, the machine should be ready to test. Take a few (5-10) coins of your choice and set the Coin Gauge accordingly. Run the machine to verify operation. If you have any problems, we'll be happy to help, just give us a call.