

Re-wicking the Manhattan Brass U. S. Electric Lamp

Courtesy of D. Durickus

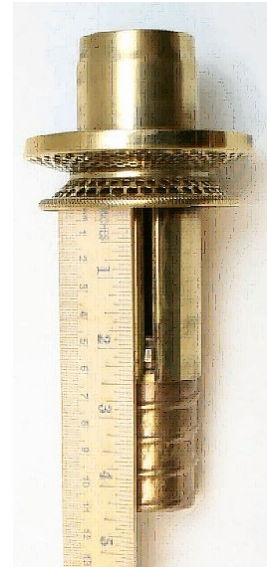
Re-wicking the Manhattan Brass U. S. Electric lamp is not too complicated but does require some thought and a slightly customized wick.

The original wicks for this lamp were thick. They measured 0.135" thick. The closest modern day wick that will suffice is the #2 P&A wick.

The wick raiser system is a rotary mechanism which consists of two parts: 1) The outer wick tube (OWT) extension and 2) The lower wick raiser piece that secures the wick and moves up and down on the draft tube as the OWT is rotated. The wick raiser piece easily removes from the OWT extension. The picture below shows the position of the wick raiser when it is sitting at the bottom of the fount. At this height the wick raiser will NOT disengage from the slot as it is keyed. Removed from the fount and lowered it slightly, it comes right out so the wick may be serviced. A clever design.

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Total wick travel is about 2 inches.



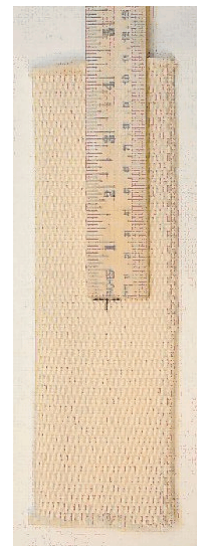
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The wick is secured to the wick raiser piece by the small protrusion on the wick raiser and by tying the lower end of the wick to this piece. This presents a problem as the standard wick has tails. These will not allow a good connection to the wick raiser.

The tails need to be sewn together so you have a continuous tubular wick. Miles can perform this service. Once you have a tubular wick, you need to determine where to cut a small slit in the tube to accommodate the projection on the wick raiser which sets the wick height. The two marker lines on the OWT are the top and bottom of the projection. So to the top of the projection to the top of the OWT is about 4 1/2".

If you mark the wick at 4 1/4" down from the top of the wick, you will end up with the wick inside the wick gap about 1/4" - 3/8". The amount you want to have the wick down in the tube is up to the user. Mark a "T" at this point. The top of the "T" is the top of the projection and the leg of the "T" is the slit you will cut to allow the projection to come through the wick.

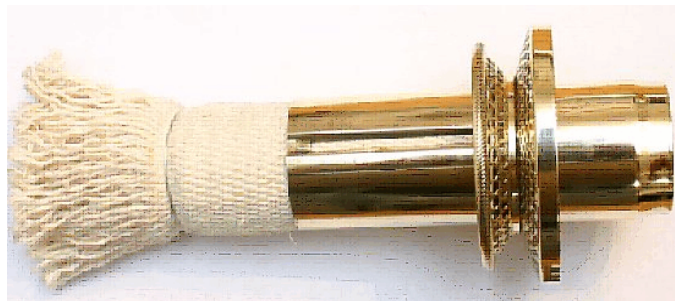
Completed wick on the wick raiser. The lower line is where the bottom of the wick raiser is located.



Now here is where a choice has to be made. Remember that the wick raiser piece needs to rest at the bottom of the fount for the top of the wick to be inside the wick gap when fully lowered. There are three choices.

- 1) Cut the wick so it is flush with the bottom of the wick raiser. I believe this is how the original wick was configured. It was like this on the original wick that came with the lamp. This makes it very easy to slip the wick assembly down through the wick tube. The problem with this is that as the wick is being consumed, it is coming off the bottom of the tank. With a total wick travel of two inches, the wick is two inches off the bottom of the tank when the wick is nearly used up. With a tank depth of only about 3 1/4", you are giving up some serious burn time. I think that is why the P&A Banner, which also used a rotary wick raiser had a feeder/helper wick which was always at the bottom of the tank while the burn wick was being consumed. P&A advertised you could use all the fuel in the tank with the Banner.
- 2) Re-cut the tails from the bottom of the wick raiser. This works well with wicks that only go up and down as the tails will curve inward or outward as the wick is lowered to its' lowest position. This however does not work for the U.S. Electric. As the wick is rotated downward, the leading edges of the tails try to screw themselves into the narrow slot in the bottom of the fount. The tails bind up in there and the wick cannot be lowered to the bottom. Worse yet, the tails cause a spring like action as they are compressed, pushing the entire OWT up. This is not a good option.
- 3) The best option to get the wick raiser to the base of the fount with extra wick material below it, is to fray the end of the wick. This insures that there is still wick at the bottom of the tank even when the wick is at its upper end of life. This is not that much work and solves the problem. The only problem this presents is that it is extremely annoying to get the frayed end down through the wick tube. The many ends had to be partially inserted in the tube and then carefully pushed down with a small flat stick (Popsicle stick worked well). There is no way that this would have been how this wick was sold. No user back in the day would put up with this aggravation.

Finished wick showing the frayed bottom of the wick and the wick tied to the wick raiser. The wick needs to be tied to the base of the wick raiser to keep it from moving about as the wick is turned and raised/lowered.



Note: Leave a bit of the bottom of the wick raiser bare so that it can rest on the bottom of the fount at its lowest position.

