Want to Help the Environment? Get Rid of Stupid Pennies

By Josh Bloom — June 17, 2016

A chemical reaction as a metaphor? Not something you see every day. But, here is one in a video:

https://www.youtube.com/watch?v=Y0-VhvBrWL0 [1]

The penny on the left was minted after mid-1982. It is made from zinc. As you see in the video, it gets chewed up by hydrochloric acid. Before mid-1982, pennies were made from copper, which does not react with hydrochloric acid. The penny on the right just sits there unchanged.

Stability in hydrochloric acid is not necessarily a measure of the value of a metal, but in this case, it is. Zinc is cheap. Copper is expensive, and getting more so.

This is why the US Mint switched metals in 1982.
The mint had no choice. The metal in a copper penny is now worth about two cents. (This is called the melt value.) So, now we have cheap pennies.

Or is "worthless" a better term?

And if it is, then perhaps it's time to change the old aphorism "Find a penny, pick it up. All day long, you'll have good luck." to something that more accurately reflects the decline of the penny's stature.

But what should replace it? How about if you guys figure it out?

Yes, it's contest time! We need a modernized version of this aphorism. Best entry wins a doubly-awesome ACSH coffee mug!

Here's my entry: "Find a penny, pick it up? If you do so, you're a schmuck."

Can you beat that? (Timberati will try, but fail.)

Pennies are not only a nuisance (stores hate them), but they are also an environmentally harmful nuisance. Here are a few facts that support this.

- The melt value of a zinc penny is one-half of a cent [3].
- Even so, according to the US Mint [4], it costs about 2.4 cents to make one penny.
- In 2013 alone, this cost taxpayers $105 million [5].
- Since 1982, 327 billion pennies [6] have been minted.
- A zinc penny weighs 2.5 g [3].
- Doing the math, 327 billion pennies weigh 1.8 billion pounds
- Tractor trailer trucks can transport 80,000 pounds [7].
- Given these figures, it required 22,500 full trucks to transport all the pennies that were minted since 1982.
- A full tractor trailer truck gets about 5 mpg [8].
- Assuming that your average penny must travel 1,000 miles from the mint to wherever it is going (pure guess), it has taken 4.5 million gallons of fuel just to transport all the pennies that have been minted since 1982.
- One gallon of diesel fuel produces 23.8 pounds of carbon dioxide when burned.
- So, by simply hauling around all the stupid useless pennies since 1982, 107 million pounds of carbon dioxide has been emitted, plus who knows how much diesel pollution.
- A whole bunch of zinc is being mined for no good reason. The mining itself causes more pollution.
- About two-thirds [9] of pennies don't even circulate. They are either thrown out, or sitting around in jars.
- Other countries have dropped the penny, and started rounding off to the nearest five cents. It worked out just fine.
- Some of this math may be correct.

And, these (very) rough calculations do not include the energy needed to mine the zinc ore, transport it to a smelter, purify the ore, transport the purified zinc to the mint, and then make it into pennies.

We pissed away almost 5 million gallons of fuel trucking around pennies that are barely used.

Makes no cents.

What do you think? A penny for your thoughts.

Notes:
(1) Timberati is one of the lunatics who relishes these contests. His talent is modest at best.
(2) Pennies used to have value, and they were pretty cool too:
In 1850, pennies were actually worth something. The coin on top is an 1850 large cent. At that
time, the mint also produced half cent and two cent coins. And, that strange looking thing at the
bottom is a silver three cent piece. Note its size compared to a modern dime. The three cent
pieces were minted for about 20 years but then discontinued because people kept losing them
because they were so small. I used to own one. I lost it.

(2) Some people claim that getting rid of pennies will impact the environment because more
nickels will be required. While this may or may not be true, others believe that the nickel should be
eliminated as well.

(3) Quiz: Before the switch from copper to zinc, there was one year that neither metal was used to
make pennies. What was the metal, and why was it used?

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[1] https://www.youtube.com/watch?v=Y0-VhvBrWL0