



Podcast Episode CBA 005

Bottles vs. Cans

Welcome

Hello and welcome to episode 5 of the craft beer showdown. The craft beer showdown is a weekly podcast where I pit two foes in the craft beer world against each other and see who ends up being kicked into Sparta's pit. Two beers enter, one beer leaves. In this episode, we take a look at a battle that has been raging for well over 50 years now, and is still going strong today. It's a hard battle to judge, since there is no side by side comparisons, but I'll do my best to pick a winner in today's battle of bottles versus cans.

Bottles

There are a few stories about the very first beer bottle, but a popular story says the first bottles used for beer were created some 440 years ago in England. The major limiting factor in the widespread use of bottles for beer was the strength of the bottle. The hand blown glass of the time wasn't able to hold the pressure of the ale as it went through bottle conditioning. It wasn't until bottle were able to be made thicker with corked tops that they were used more for beer. Thomas Tryon, who wrote one of the first books on brewing was not a fan of bottles, and actually wrote against their general use, disliking what the bottle fermentation did to the texture of the beer. Bottled beer was generally made for the export market in the beginning, as they were hard to fill and had to be corked by hand. The majority of beer was still served in casks. The first bottlers of beer were actually the bottle makers and not the brewers. The bottle makers actually used the beer to increase the sales of their bottles overseas. Bottles continued to grow in popularity, sometimes taking dips when taxes on glass production were introduced, but always rebounded when the taxes

were decreased or removed.

Bottles evolved to have flip-tops for easy resealing, as well as screw-tops and the common beer cap we know today. Bottles still have a decent share of the beer market, with most breweries having their own bottling lines now.

So, now that you have a rough idea what the history of beer bottles are, let's see what the positives are.

Positives of Bottles

1. The first positive worth noting is that glass holds its temperature slightly longer than an aluminum can. This means that if the bottle is sitting out for any amount of time, it will keep cold a little longer.
2. Another positive of bottles for beer is the neck that most bottles have. While I am strongly against drinking beer from the bottle, if you are, the neck gives you a place to hold the bottle without warming it up with your hand. This can be useful if there's no glass available.
3. Glass's ability to hold up to the elements is a definite positive as well. If you were to get a case of glass bottles wet, as long as they weren't fully submerged over the cap for an extended period of time, the beer inside would be perfectly fine to drink. Glass is a sturdy material as long as you don't hit it or drop it.
4. Glass, while not as recyclable as aluminum, is better for the environment to produce.
5. The last positive I will note here is the reusability of beer bottles. You can reuse bottles indefinitely for bottling your home-brew. As long as you clean the bottle, nothing short of breaking the bottle will make it unusable.

Let's check out the negatives of bottles now.

Negatives of Bottles

1. The biggest negative of bottles is that light can pass through them. This causes beer to be light-struck and can change the taste and longevity of the beer. Darker colors are used to block more light, but ultimately some light can still get in, which is always bad.
2. Most bottles today are sealed with a crimp-on cap. These do a good job at blocking out air and keeping the beer in, but not a perfect job. Over time, this can let small amounts of oxygen into the bottle, oxidizing the beer. Also, if the bottle is laid in a way that beer can come in contact with the cap, this can also impart flavors into the beer over time.

3. The third detracting factor I'll mention is the inherent heaviness and fragile nature of glass bottles. Bottles add a lot of weight to a case of beer, making storing and moving bottled beer fairly difficult. Along with being heavy, glass is fragile. Dropping a bottle will almost guarantee you have a nice mess to clean up. This means that glass bottles are not allowed in many public places, which makes it pretty much impossible to enjoy a bottled beer at the beach, tailgating, or any other outdoor venue.

Overall Impression

Overall, bottles are a fairly good way to store, transport, and consume beer. They are extremely standardized, which makes them reusable, easy to recycle when not being reused, and are the standard for beer today. They do allow light to hit beer, and caps are not the perfect seal for keeping air out, however. There are definitely good and bad points to bottles.

Ok, so that's the basics of bottles. Let's look at cans now.

Cans

During the 1930's, canned beer began to grow in popularity. These original cans were somewhat different than the cans you get today. They came with no built-in opening system. This means they needed a can-opener to get them open, known as a church-key. This was usually done by punching a hole in the top of the can. The first known use of cans for beer was Krueger's Finest Beer, from Virginia. Canning was more expensive to set up than bottling, which is what kept cans from gaining more of a foothold than they did. Once the canning system was in place, however, it was far cheaper to make a can of beer than a bottle, hence the prevalence of cheap canned beer today.

Today, cans have pop-tops that allow for easy opening and pouring or drinking from the can. Some cheaper beers like Miller Lite have introduced new technologies into beer cans in recent years, like the wide-mouth can and the punch-top can, both of which are meant to make drinking and pouring the beer easier.

There has been a resurgence of cans with no pop-tops as well, with Church Key Can Company bringing the flat-top cans back that need opening with an opener.

While most of these tend to be fads that serve no real purpose, it shows

that the can is still a technology the beer companies invest money in.

Now that you have the basics down, let's check out the positives.

Positives of Cans

1. The first positive can have going for them is protection against light. Light doesn't tend to pass through solid aluminum, so this makes a great container for a light-sensitive liquid such as beer. This protects the beer against becoming light-struck, and allows for easier storage, as you don't need to hide it from the light.
2. The second positive here is that cans are lighter than their glass brethren. This allows cases to weigh less, allowing for easier storage, shipping, and moving of canned beer. This also, by proxy, can reduce shipping costs and the overall cost of beer in cans. Along with weight come their compact size, making them easier to stack and store.
3. Third, you have the strength of aluminum cans. They are not nearly as fragile as a bottle, meaning if they are dropped or bumped into during shipping or even during consumption, they will not shatter. If a full can is punctured or dropped hard enough, it can rupture, but the only thing all over the ground will be beer, not broken glass as well.
4. Aluminum is very recyclable, and can be recycled many more times than a bottle can be for the same purpose.
5. Last important plus here is that cans get cold quicker than bottles, so you have to wait less when you put those cans in the fridge.

Now that you know the positives, let's check out some negatives, just to be fair.

Negatives of Cans

1. The first negative worth noting here isn't considered a real negative by everyone in the beer industry. Some people claim that today's cans impart a metallic taste to beer, even though cans are lined with plastic. They believe that the small amount of metal the beer touches as it leaves the can gives it this flavor. Never mind that beer is brewed in metal containers, but they believe it's the can that does this. While I don't believe this to be true and have never experienced this, some people believe it, so it's worth mentioning.
2. Next, cans are only single use. They must be recycled to be used again. Unlike bottles, which can be used for home brewing over and over again, these are single use.
3. While easy to recycle, aluminum is one of the most labor-intensive materials to create. An enormous amount of greenhouse gasses are

- created when bauxite, the mineral aluminum comes from, is turned into metal. This is a definite negative.
4. Last important thing to mention here is the stigma attached to cans. People today tend to relate canned beer to cheap beer, no matter the quality of the beer inside. While this is fading with the current trend in craft beer to use cans, the enjoyment of a beer involves all senses, so this can definitely be a negative.

Overall Impression

Overall, I am a big fan of cans. They stack nicely, store easily, protect against light, and are all around cool. While they do use a labor intensive metal, their lighter makeup helps reduce shipping, helping the environment there.

The Winner

The winner is....

And the winner is....Cans!

I gave it to the can because of it's ability to protect against light, which is one of the biggest enemies of beer. While there are definitely some negatives, the can's ability to protect against light-struck beer, it's durability and ease of shipping/storage makes this a landslide victory for the can.

Conclusion

There is a TON of history about both cans and bottles, way more than I can list here without boring everyone listening. Look for a post on craftbeeracademy.com soon about the history of each. I find this really interesting stuff, and I hope you do too.

Closing

Well, that's about it for episode 5 of the craft beer showdown. Thanks for listening. If you enjoy the show, please leave me a review on iTunes or Stitcher Radio, I'd really appreciate it.

Also, check out craftbeeracademy.com/nextshow to vote on what the next topic will be. Just leave a comment on the page and the winner will get made. If no one votes, the next episode will be me practicing my Tibetan Throat Singing, so please vote, for the sake of everyone else.

Thanks again for listening, and check out craftbeeracademy.com daily for craft beer news, articles, and information to help everyone be beer smart.

Until next time, Cheers!

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Resources

- <http://www.buzzle.com/articles/beer-cans-vs-bottles.html>
- <http://zythophile.wordpress.com/2010/01/15/a-short-history-of-bottled-beer/>
- http://en.wikipedia.org/wiki/Beer_bottle