

**UNITED STATES INTERNATIONAL TRADE
COMMISSION WASHINGTON, D.C.**

In the Matter of

CERTAIN SOFT PROJECTILE

LAUNCHING DEVICES,

COMPONENTS THEREOF, AND

PRODUCTS CONTAINING SAME

Investigation No. 337-TA-1325

Public Comment in Response to Notice (Doc. ID 812921)

My name is Brian Hoffer. In regard to Investigation 337-1325, I am not submitting on behalf of either party. In fact, as the owner and main author of www.blasterhub.com, a website dedicated to news and reviews involving many varieties of blasters available on shelves in the US (foam darts, water, gel balls, etc.), I receive samples from both Hasbro and Prime Time Toys. I've also been able to observe the evolution of many toy blaster types over time. Having covered the recent USITC decisions, and realizing that I could make a submission, I'm writing a letter with my observations and opinion, hoping to address an issue I've seen overlooked in the patents at hand (8,371,282 and 8,640,683).

-Credentials

I am not an engineer, nor am I a toy designer. In fact, I went to university for microbiology, only to drop out after issues with clinical depression at the end of 2011. However, since the spring of 2009, I have been involved in the blaster modification hobby, starting with the modification of blasters for dorm-level games and continuing, to this day, with the ownership and authorship of a website dedicated to news and reviews involving toy blasters.

As part of this hobby, I became involved in the Nerf Internet Community (NIC); I became involved in a community of people who modified blasters to shoot darts at much farther distances than would normally be possible. The tools at the organized "Nerf wars" (given the dominant brand) we attended ranged from modifying existing blasters to constructing entirely homemade ones from hardware store parts.

Community members with access to better tools (CNC Lathes, etc.) were able to accomplish even more impressive modifications.

Later in college, I decided to start a blog dedicated to the blaster community, www.buffdaddynerf.com. Young adult sense of humor for usernames aside, I took this aspect of my hobby seriously (at least as much as an adult playing with children's toys can).

After college (and after moving into my own apartment), I started writing on behalf of Blasterhub, a new (at the time) site dedicated to the blaster hobby. After a few years, I became the only person writing for the website, and opted to buy it outright for my personal use. To this day, Blasterhub is still active, and

I'm still reviewing, tearing apart, and modifying blasters. I receive free samples from several companies, and when possible, attend Toy Fairs and other industry events. In addition, in keeping with the evolution of the hobby, I post and make available files with which others can 3d print for modifying their blasters.

Given my 15 years of hobby experience, I would hope to be considered someone that is, in the relevant language, "a person having ordinary skill in the art of" blaster mechanisms and modification. My legal experience is obviously lacking, but I will do my best to follow logic and precedent.

-Concerning Obviousness and Adaptation

The use of super-absorbent polymers in blasters, as you know, is not new, and is the subject of the patents referred to as the '282 and '683 patents in Investigation 337-1325. These patents were filed alongside the release of the Xploderz line of toy blasters. My personal experience mainly lies in modifying these blasters for firing foam darts; however, I've hydrated the ammo and tested the blasters as intended before doing any modifications. Based on my experience, I wish to highlight claim 8 of the '282 patent, as well as claim 7 of the '683 patent, on which further claims are dependent.

As per *In re: Giannelli*, No. 13-1167 (Fed. Cir. 2014), "adapted to" is not the same as "capable of", the launcher in these patents must be designed specifically for the ammo used. In the case of blasters, you could technically fire many kinds of ammo from a blaster, if you're willing to construct the blaster in such a way to retain said ammo for firing. My hobby captures this concept, seeing how often blasters are modified to shoot different darts or ammo types. A blowpipe may be able to fire your ammo of choice, but the platform itself wasn't adapted for the ammo. This point was made in witness testimony.

The original Xploderz blasters featured key characteristics for firing SAP projectiles. They featured propulsion systems moving large volumes of air at low pressure. This may be a relative comparison, of course, but it's a fact that, given a set force provided by a spring, a wider plunger will spread out that force more than a smaller one. Given the large diameter of the plungers used and the need for usability by kids, "low pressure" is an apt description. Large volumes of air assist in overcoming inefficiencies in general when it comes to blaster designs, including in the Xploderz blasters, where a long tube connected

the front of the plunger assembly, looped back for the length of the plunger tube, then turned around to connect to the breech and barrel area. The Xploderz blasters also featured, depending on generation, ways to launch SAP ammo without it breaking. First generation products featured “carriers” (or in the patents, a “soft-projectile holder”) that cradled the ammo while the entire assembly moved forward. Later generations were able to drop the holder while still trying to accommodate the relatively fragile ammo – the barrels used to launch the ammo were wider than the ammo itself, for example (the patents claim an ideal between 5-8mm, but the barrels were ~10mm diameter on the inside). Based on the difference in diameter, I would speculate the concern was that friction against a tight barrel (as opposed to the possibility of rolling or slightly bouncing off the barrel) was enough to make the ammo break apart prior to launching at the target or opponent. Indeed, from what I recall from memories in my parents’ backyard, even later generation Xploderz like the Mayhem (a crank-operated “minigun” blaster) had small numbers of misfires where you sprayed SAP bits instead of launching a whole gel ball. The experience is anecdotal, yes, but it illustrates that The Maya Group was not only just using SAP ammo, but they were also designing their blasters to specifically use that ammunition type (or at least that specific SAP formulation), even if on occasion it didn’t work as intended. These were solutions that, while making sense in retrospect, certainly qualify as not being obvious.

That experience, while a bit nostalgic, is far different compared with my handling of modern gel ball blasters. While modern blasters can have their own issues, firing the SAP ammo itself isn’t one of them. Indeed, among the various modern gel ball blasters I’ve tested, all have fired the industry-standard 7.5mm balls without issue, using propulsion mechanisms that are recognizable from airsoft guns and the like. That part is key. Indeed, while such mechanisms may have fired plastic pellets or copper BBs originally, they can easily be switched to fire gel balls given the appropriate barrel material and correctly sized feeding mechanisms. However, that does not qualify as “adapted to”, merely as “capable of”. The SAP ammo used today is far more tolerant than the Xploderz ammo, as it is launched by high pressure air bursts (lower volume and plunger diameter, but with a strong spring) directly from behind, and is fired out of tight barrels matching the ammo’s intended diameter.

If anything, modern gel balls have been modified or reformulated to the point where they can be dropped into other systems, as opposed to the patent's stated intention of using both SAP ammunition and a launcher adapted specifically for them. A close analogy would be the high school physics experiment involving the egg drop. More specifically, the egg launch, for when a high roof is unavailable. In such instances, students are tasked with designing a container that will prevent the egg within from cracking when initially accelerated upward, as well as during the severe deceleration of ground impact. It's not a perfect analogy, but the comparison is relatively sound.

In line with that comparison, the Xploderz blasters did their best to launch a fragile egg, cradling it or otherwise trying to keep excessive force from breaking it apart prior to impact with the ground, and especially by launching it with large quantities of low-pressure air. In contrast, modern gel ball blasters have elected to reengineer the egg, so that it can withstand initial high-pressure bursts of air – as far as the comparison is concerned, new eggs are being fired out of an egg-diameter musket. In this case, we've long moved past using a launcher adapted to fire SAP ammo. These launchers are not "adapted to" firing modern gel rounds, merely "capable of" doing so.

As such, I don't think there's a violation of the concerned patents, due to the lack of adapted launchers. Given the timeframe in which modern gel ball blasters have reached market, with the Complainants coming "late to the party", it seems more accurate that the Complainants are trying to expand the coverage of these patents far beyond what they should cover, which is an abuse of the system.

I apologize for a submission so late into the process; while I've observed the proceedings for a while, I did not realize that I, as an outside observer tangentially related to the matter at hand, was allowed to submit anything. I do not know if this letter will make any impact, but I hope that those concerned will be able to appreciate the insight of someone that has used and modified toy blasters as a hobby for a decade and a half, and therefore can, at the very least, submit their practical observations plainly.

I thank you for your consideration.

Brian Hoffer