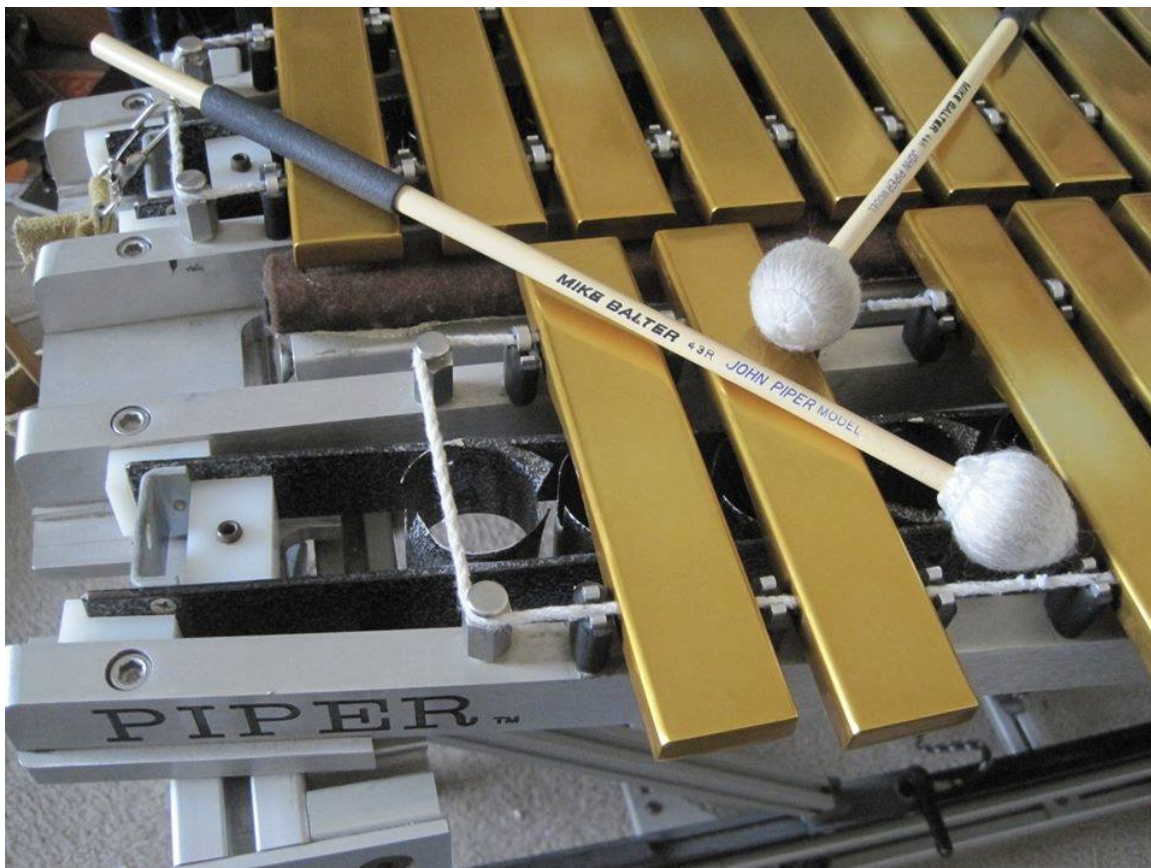


# Vibraphonics and the PIPERvibe



PIPERVIBE JOHN MARK PIPER · WEDNESDAY, SEPTEMBER 6, 2017

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## Vibraphonics: The PiperCussion Damper Pad aka, the gel pad

In mid to late 1980's I was trying to learn to play solo vibraphone. It was so difficult and so frustrating! For one, I felt that my instrument (Musser M55 Pro Vibe) wasn't working correctly and needed repairs. At that time, I didn't know other vibraphonists who I could compare my instrument with so I just thought mine didn't work. So I drove to the Ludwig/Musser factory in Chicago with my vibraphone to get the needed repairs. (I lived in Los Angeles at the time so it was quite a trip).

My timing was perfect because Leigh Stevens was also there consulting with the engineers on marimbas. At that time, Leigh was their "artist consultant" (a position I would fill ten years

later). The Musser receptionist took me to the back of the factory and introduced me to the engineers and they introduced me to Leigh who I was hearing a ton about from my friends in the mallet profession. I highly doubt that Leigh remembers that this was our first meeting. I met Ken Sieloff for the first time and the elderly man (I can't remember his name) who was the lead engineer. Both were very nice and very helpful. I explained that my instrument didn't damp properly on the ends and I'd like to have it repaired. I was visiting my parents for the time that it was being repaired.

A short time later, my instrument was ready to be picked up. When I tried it out, it still didn't mute notes evenly - the way I thought it should. I brought this up to the engineers and they said, "that's just the nature of the beast". They did a lot of touching up and replaced a rail that was cracked but as far as the damping goes, it was the same.

So, I started looking for solutions to the problem but first I had to fully understand the problem. So, I went back to L.A. and continued playing, writing and all the while, frustrated with how the instrument muted notes (or not) and made a lot of nasty buzzes coming from the damper pad.

For my non-vibraphone friends interested: The vibraphone's damper pad is traditionally made of a felt belt that is approximately 1/2 inch thick, 1 3/4 inch wide and runs the length below the bars (about 51 inches long). The pad is operated by a pedal that is tensioned by a single spring in the middle. When the pedal is released by the player, the pad comes in contact with the bars and is supposed to stop them from ringing.

Though this seems like it should be an easy fix - it isn't. I tried many different materials to replace the felt for better muting. I even tried making my own felt by saving dryer lint for a month. I learned that if the surface of the material is too smooth or hard, the bars will buzz from the vibrations as they touch the pad. If the material is too soft, the bars will not mute quickly enough for music. In addition, nothing seemed to stop all the bars evenly because the force from the spring mounted in the center could not distribute its force evenly to the ends of the 51 inch long damper rail/pad. This search for the exact right material was similar Edison's search for the perfect light bulb filament - tungsten.

So, one day while preparing to put my vibraphone back together for the umpteenth time, I decided that rather than practicing, I was just going to take a bike ride to the park. So, I went to the garage only to find that my bicycle had a flat tire (adds to the frustration).

As I was taking the inner tube off the bike to repair it, it hit me like a tungsten-equipped, 1000 lumen perfectly directed light bulb!

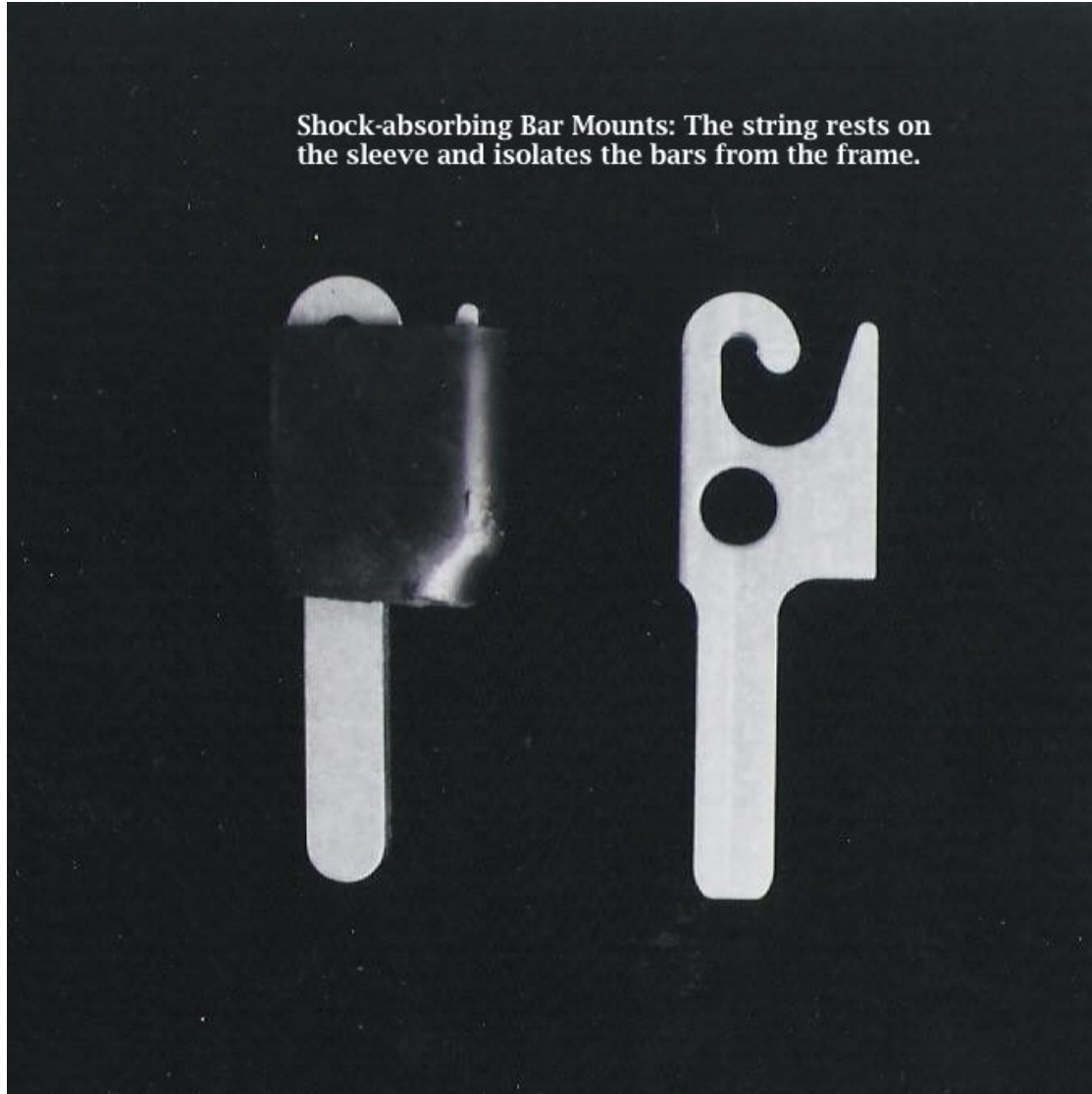
I ripped that inner tube off my bike, cut the donut shape to make a long air-filled bladder. I then put just a tad bit of air in it and clamped the ends making a 51-inch X 1 3/4" damper pad

bladder!

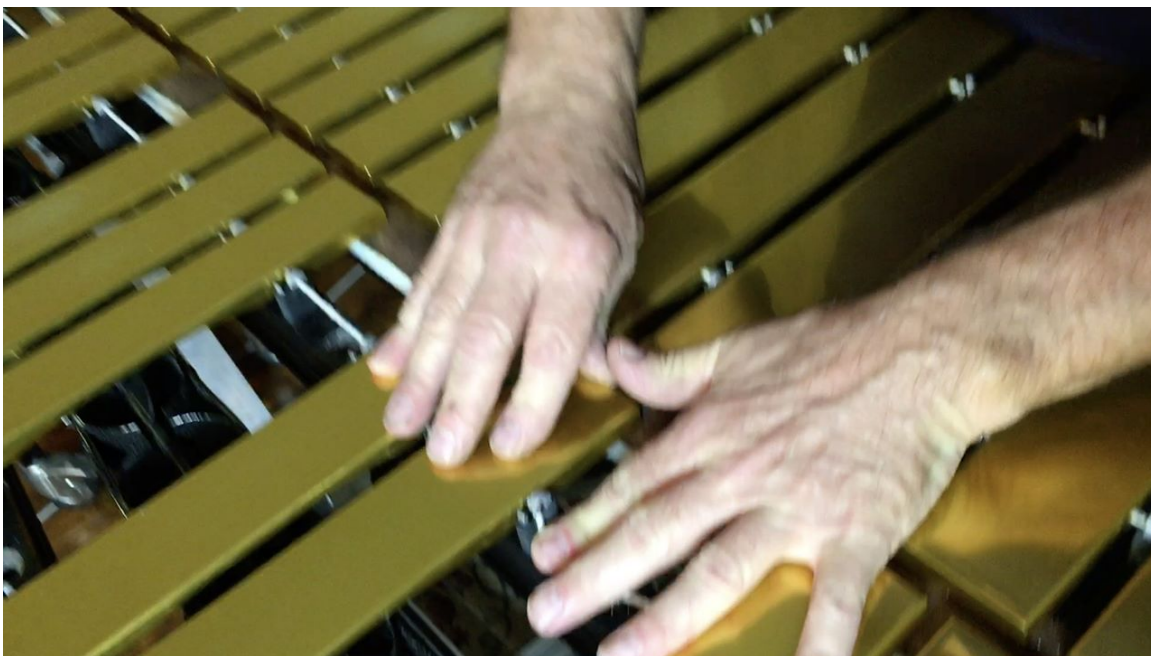
The action was amazing. The force from the spring was now pushed perfectly to ends of the pad but the air-filled bladder didn't offer enough density to stop the vibrations of the bars. I knew that I was on to something though so I filled the bladder with water and it worked like magic. But, the surface area of the inner tube was too hard and it buzzed like crazy. Next, I went to a fabric shop, bought some thick felt cloth, put that over the pad and it worked beautifully... for a little while. The felt quickly became mashed down and too brittle and began to buzz after a short while. I remember from some previous experiments when I was trying to make my own felt that when you wash felt and dry it in a hot drier, it shrinks and puckers up. It also becomes a bit softer so I did that. That worked perfectly and lasted a very long time. That was the beginning of the PiperCussion Damper pad, which I own a world-wide patent on. A couple of the problems with it though were that it was rather expensive to make and sometimes, you could hear the liquid sloshing about inside the pad. So I had to thicken it. I tried many different ingredients – mostly liquid dish soaps. I think it was “Joy” that worked the best until I found SLIME! Yes, the green slime that kids played with. It took a couple canisters thinned with just the right amount of water. It worked perfectly! I had a recipe.



After the Piper Vibe came about, Musser wanted me to come up with a less expensive version of my PiperCussion Damper Pad which was very nice and actually performed better than the current “gel pads” being produced (unless you’re on an uneven stage). So, Musser sent me to a factory that manufactures liquid-filled bladders for medical procedures and similar things. I didn’t like the pad as much but I compromised with Musser in an attempt to make it easier on their side. They were TOTALLY supporting of me.







During that same time, I tried to make my own silicone pad and couldn't come up with the right density. I really didn't commit myself to it because it was a messy job and I didn't like doing it. Nico, Van der Plas was entering the vibraphone building as a result of what he was seeing and made a couple vibraphone similar to the Piper Vibe out of the same kind of materials. He made his own version of the PiperCussion damper but it was a silicone Taco-like thing. He sent it to Musser and I to evaluate and he was trying to sell it to Musser. I tried it and didn't like it and said no. That was all it took and he was out and Musser declined to purchase the rights from Nico. However, Nico later improved his mix or something because a year or so later, when the PiperCussion pad and decreased in quality and the Van der Plas pad improved, I started using it and recommending that people who purchased the Piper Vibe should also purchase their Gel Filled damper Pad from Nico. I still use it today.

Here's a fun side note about my PiperCussion Damper Pad: It was great. I loved it and it solved all my moans and groans but shortly after I started using it, I got a steady solo street gig at the L.A. Zoo where there are hills all over the place. My damper pad now would have to be played where the ground is NOT level. The green slime would undoubtedly flow to the end and my problem would start all over again. So what did I do? I built a portable leveling stage that I could easily set up on any hillside and put my vibe on it and level it to perform.

Eventually the Zoo Gig terminated and that stage was placed behind our garage in L.A. (Monrovia, CA actually) and it was my son's first "dancing stage" that he often used it to dance on before the age of three.... And that's the end of that story.

The “John Piper” signature mallets: Around the same time that I was working on the vibraphone, I was also revising my personal sound and looking to create the purest sound possible. The Piper-cushion and PIPERvibe with shock absorbing bar mounts were doing their part but I was not happy with my mallets. So, I learned how to wrap mallets and started experimenting with different ideas. I learned about shore hardness durmeter for the rubber balls and experimented with a lot of different yarns and strings and combinations. I found a carpet yarn that was exceptional but it was industrial and I could only order it by the pound and I had to order a lot of it. So, I did. It had the right sound and the right strength. I was dedicated to eliminating all extraneous noises when playing. One of those noises is the sound of the mallets rattan clicking together in the palm of your hands. So I added pencil grips

It was very cumbersome but I was very driven by the goal. I made myself play for two weeks using the grips and I became in love with them. I sent the mallets, a ton of yarn to Michael Balter and he started experimenting with them too. After a short time, he had made “Balter” improvements and I was very happy to become a “Mike Balter” artist with my own signature mallets.



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