

Thoughts on Biting the Carriage Driving Horse

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As I travel around the country giving carriage driving clinics, one prevalent problem I encounter is the improperly bitted harness horse. If I have 10 horses in a clinic, at the end of the day I usually will have half a dozen or more unsuitable bits thrown in a pile. I find it a little alarming that so many people fail to realize that without a comfortable mouth, their horse will never deliver its best performance. While I generally dislike horse to human analogies, these may have some applicable ring of truth: would you run a race with shoes that pinched your feet? Are you not distracted from your job when you suffer mouth pain? The mouth of a horse is delicate enough to distinguish between the slightest variations of forage texture yet I have seen horses blissfully lick frozen salt blocks at 20 below zero, deliver decent performance with sharp, unfloated teeth and corresponding sores inside their cheeks, and win competitions with incredibly powerful, severe bits used by strong men who had to use hand holds on their reins. Perhaps it's an understatement to say horses seem to have a wide tolerance for sensation in their mouth. Everyone has seen horses perform rather well in double twisted wire bits, bicycle chain mouths, wire thin snaffles.....yet why is such power required with such bits if the horse can easily feel the slightest touch of your finger on its tongue? The bit is at the very least a foreign object in your horse's mouth. Have enough respect for your horse to at least make it a comfortable one.

Driving bits have been around for a long time. In Dr. Gerhard Malm's Bits and Bridles Encyclopedia there is an illustration of a driving bit made with a cord mouth and antler cheeks from around 4000 BC. Looking through the 500 pages of bit illustrations in this encyclopedia, one eventually comes to the realization that there is very little new bit design taking place today in spite of manufacturers' claims. Yes, there is refinement in manufacture and quality and even some new materials but very few new ideas are being brought forth in bit design. There are a few new designs that are relevant to carriage driving. The Myler Bit Company of Missouri is making wonderful bits based in part on tongue pressure relief, which allows the horse to comfortably swallow while working. The Glory Metal Works Company has two bits that have become very popular in carriage driving: the Glory Butterfly and the Glory Liverpool. These bits are design with the horse's comfort in mind and are built to fit the shape of the horse's mouth. (See Myler Bits at: <http://www.toklat.com/myler/index.html> and Glory Bits at: <http://www.eagle1st.com/glory.htm>)

Probably the most prevalent bit in use for carriage driving is the Liverpool, characterized by its long multi-slotted shanks and straight bar mouth piece and curb chain. There are hundreds of variations of the mouthpiece for this bit ranging from single and double jointed mouths, curved, ported, arched mouths and combinations of the all of these. The cheeks show as many variations too. Somehow the notion has evolved that one must use a driving bit while driving and in many minds that means a Liverpool since it is specifically not a riding bit. However, the bottom line for choosing the best bit for your carriage driving horse is the comfort of the horse and the performance he delivers. How

does the horse go? At one recent clinic, I changed 9 out of 10 bits. The only one I didn't change was on a Shetland pony that was driven in a very old, cheap, rather poorly made, rusted, small ring, single jointed snaffle. He went beautifully in it. Why change it? Use the bit that works the best. Tradition? Well, tradition matters but to whom? Your horse could care less about tradition and yet we ask him to do all the work. Choose a bit for performance first then worry about tradition.

The bit is the gateway to the equine brain. Without an effective tool to communicate your instructions to your horse, your performance will suffer. Without the skill to effectively speak through your reins to your horse, your performance will also suffer and perhaps your life and your neighbor's lives will be at risk. Horses are not born with a bit in their mouth and they are not born understanding what a bit is for. They must be trained to understand the language of the bit and it can not be done all at once. The refinement of the language of the bit is perhaps infinite. The understanding by your horse of the subtleties of bit contact (language) can and will take years. While training your horse should be a fun and rewarding process, you must be willing to take the education process seriously to be fair to your horse. He did not ask you to train him. He did not ask for a bit in his mouth. Heike Bean, in her very valuable book, "Carriage Driving", put it this way:

"What does it feel like to be this animal of flight, who must submit to being strapped to a carriage and controlled through a piece of metal in his mouth, doing things and going places he would never dream of doing on his own?"

Bits are not magic. They do not come with an automatic education. A \$200 bit will not suddenly and magically deliver perfect 10's on a dressage test. Your horse must be capable of appreciating what you put in his mouth and be capable of understanding the communication he receives thru it. That takes some skill on the part of the driver and is best learned with the help of someone who is experienced at teaching such things. It's very difficult to accurately put into words the feel and timing of rein work. There are several books that explain bit theory and concept but there is no substitute for the live action and a good teacher.

For carriage driving there are bits that are not permitted for AHSA and ADS competition, specifically burr, gag, and twisted wire bits. That still leaves many, many good bits from which to choose. Whatever bits you use should be comfortable for your horse. That means it should fit the size and shape of his mouth. Fatter mouthpieces are not always more comfortable for horses than thinner ones. Many horses simply do not have enough room in their mouth for all that metal. The shape of the mouthpiece is of particular importance. The most common biting problem I see in my travels is excessive tongue pressure created by the mouthpiece. Straight bar Liverpools are quite common and, in my experience, it is the rare horse that finds the constant, un-relievable tongue pressure they deliver to be comfortable. There is simply no position in which the horse can place the bit for which it is comfortable to them. How does one offer any meaningful reward to the horse with a bit like that? Simple, single jointed snaffles are also quite ubiquitous. These bits can work well but all too often the horse does not appreciate the

nutcracker effect and the poking in the palate of the mouth that these bits can deliver. I'd also have to take the manufacturers to task to some degree. Recently there has been a move to manufacture bits in the Far East where proper design takes a back seat to production engineering. Myler bits may be the single exception. Their new line of production bits is well made and I see little sacrifice to machine production demands. Their hand made bits are still better made but it is wonderful to see such well made production bits in the tack shops today.

Carefully examine the bits you are about to purchase for your driving horse. The joint where the mouth is connected to the cheeks should be free of any defect. The connection should be clean and smooth with no gaps or holes in which the delicate corners of the mouth could be pinched. Jointed bits should have smooth, small well-finished joints. A common flaw of production bit design is to make the joints much larger than they really need to be for adequate strength. The joint is sized for the machinery that made it, not for the horse's mouth that uses it. I don't hesitate to re work the parts of bits to get them right. I have bent mouthpieces into more comfortable shapes and filed down joints to reduce their size. Obviously one doesn't do this to the point of creating a weakness but many inexpensive bits can be made more user friendly with some minor tinkering. I often use latex wrap to fine tune the bits for my horses. Latex can soften the mouthpiece a tad or raise the mouth up off the tongue just enough to make the horse more comfortable.

When a horse is presented to me in a clinic situation, one of the first things I will do is examine his mouth, teeth and the bit he is wearing and watch him work for a few minutes, paying close attention to what his head, neck and particularly mouth are doing. Head tossing, poor neck position, stiffness, tension, lots of mouth activity are all signs that the biting may need to be changed. There can be other causes of these symptoms (poor hands, pain elsewhere in the body, for instance) but if the bit is the culprit, you will not be able to make any useful progress without changing it. Sometimes it's as easy as adjusting the bit's position in the mouth. Most commonly the bits are placed too low in the mouth under the mistaken belief that it is somehow more comfortable for the horse. Caveseons or nosebands are frequently improperly made or adjusted. I prefer to use caveseons with which I can easily adjust the height of the noseband relative to the corners of the mouth and the tip of the zygomatic spine (the protruding bone or cheek bone below the eye socket). A hole or two can often make a huge difference to the horse. As a general rule of thumb, I want the top edge of the noseband about the width of a fat finger below this bony point. I take care not to let the adjustment get too low where it can interfere with the action of the bit. I prefer a caveseon that has a noseband that slides through its cheek pieces; that is, it is not fixed at the connection of the cheek and the noseband. This allows positioning of the cheekpieces just under the bone. Snugness of the noseband is individual to the horse. However, it's rarely very tight or very loose. Take care to see that the section of the caveseon under the jaw is smooth and wide and preferably well padded. This is a sensitive area for the horse. There is no muscle "padding" here. The skin is right on top of the bone and the noseband almost always is placed on the same exact spot every time it is used. Fasten the noseband carefully and gently. Excessive sensitivity in this spot alone can cause reactions similar to poor biting.

Dropped, figure eight and flash nosebands have their special applications and are beyond the scope of this article.

Every trainer has his or her favorite bits. I have mine as well. The Myler forward ported barrel Kimberwick, the Glory bits, the Myler large loose ring snaffle and the Korsteel oval bean three jointed snaffle have become the most useful bits for the majority of the carriage driving horses I train. Over time with some fine-tuning and experimentation, the bit in which the horse delivers it's best performance is discovered. Some trainers use certain bits and insist that the horse just find a way to perform in them. I let the horse tell me where his most efficient and comfortable position is given his conformation and level of training, then try to find a bit which will allow him to work in that position and in which I can communicate to him my instructions. Even when I think I found the perfect bit, I will keep experimenting to try to make the performance just that little bit better. Horses do change as they put on mileage and the bit I use at 100 miles may not be the best one at 500 miles.

While everything else you do for your horse - the selection of the vehicle, the handling and training, the management of his living situation, his feed and supplements, the vet care and the shoeing, etc. - are of prime importance to his ability to deliver his best performance, probably no single thing will make or break your success as the choice of the right bit.

References:

Bits and Bridles: An Encyclopedia - Dr. Gerhard Malm. Grasshopper Publishers, Valley Falls Kansas ISBN: 0-9652818-0-9

A Whole Bit Better - The Myler's guide to their biting system available in most tack shops