About 20 years ago, Oral Arts Dental Laboratories in Huntsville, AL, got a request from a local dentist for four crowns. There was a catch, though: the patient was a dog. Always up for a challenge, Founder and CEO Thomas Winstead worked with the dog’s vet to restore the teeth.

Since then, the lab has fabricated crowns for six other dogs, most of them law enforcement animals. Most recently, the lab used its expertise to help Marley (pictured below), a Labrador Retriever trained to detect narcotics, whose affinity for tennis balls resulted in worn canines.

Tennis balls are often used as a reward during training but they can lead to dental problems when the dog continues to chew on them. “The balls get wet, then roll on the ground and pick up sand, gravel and become abrasive. As the dog chews on the ball, it erodes the enamel down to the gum line,” explains Dr. Sean McPeck, Marley’s vet. “When Marley came in, he was in so much pain he was unable to eat or drink water.”

While the crown fabrication process is the same as for human crowns, taking the impression is a different story. “Marley had to be sedated and have a breathing tube down his throat in order to get a good impression. Typically the teeth don’t have to be prepped nearly as much as a human tooth because more than likely the dog’s tooth is already very worn down, such as in Marley’s case,” says Lacey Hyche, Director of Education and Marketing at Oral Arts.

The lab fabricated Marley’s crowns using its proprietary Element-Z Zirconia. “It’s the perfect material for a canine with a strong bite and one in need of exceptionally strong teeth,” says Hyche. “The way a dog’s mouth goes into occlusion, the crowns don’t receive a lot of bite or force load, so the crowns should last for the life of the dog.”

In addition to strength, two of Marley’s crowns have something extra: tattoos of the American and Alaskan state flags, in honor of his handler/owner who is a military veteran and a law enforcement officer in Alaska.