

Quackenbush Darts

By John Groenewold,

Copyright by John Groenewold on September 4, 2005

This appeared in the January 2006 issue of Airgun Hobby magazine.

On February 2, 1875, H. M. Quackenbush was granted United States Patent number 159,354 for Air Gun Darts. This patent covered air gun darts as we know them today. A steel front section was made on a screw machine. The rear section consists of mohair wool staked into the front piece; then trimmed to uniform length.

This tuft of wool allowed the dart to be used successfully in most guns, thus overcoming the problem of varying bore sizes common in the 1800s.

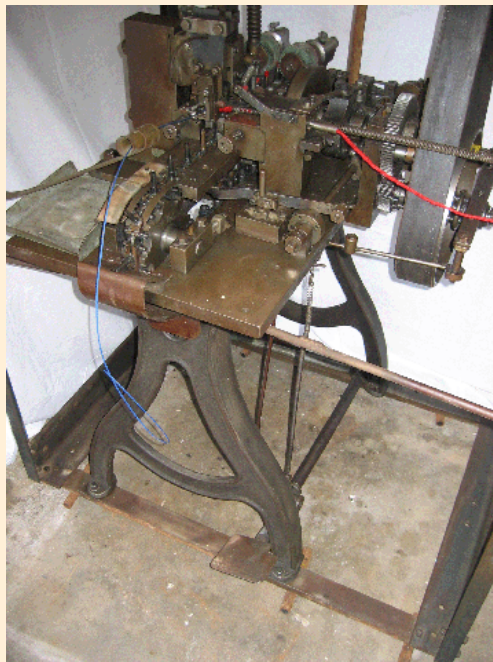
H. M. Quackenbush also invented the machine to manufacture darts. He made approximately four dart-producing machines. One was sold to Pope of Boston, but Pope soon abandoned the production of air gun darts. At least one machine remained in operation at the Quackenbush factory until September 28, 1976. On September 28, 1976, the last known existing dart machine was sold to the Benjamin Air Rifle Company of St. Louis, Missouri. It was moved to Racine, WI when the Benjamin Air Rifle Company moved into the old Sheridan Products facility. Crosman bought the Benjamin Sheridan Company in 1993 and the last existing Quackenbush Dart machine was sold to the author in same year. It is believed that one machine may have been sold to a European company.



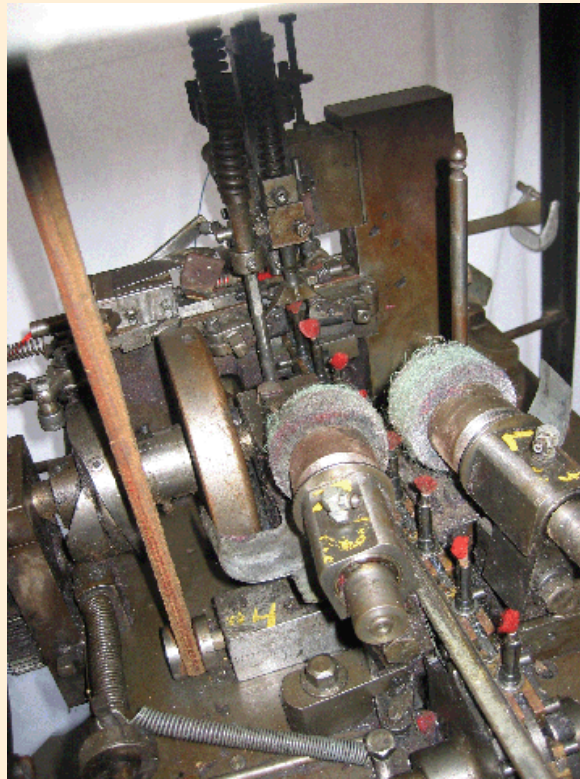
H. M. Quackenbush made and sold darts under their own name until this date. Darts were packaged in wood blocks, then cardboard boxes, and finally, in envelopes. It is not known exactly when the various types of packaging were used, but most of the darts were sold in envelopes. It is known, however, that darts were packaged in envelopes as early as 1877. Quackenbush made and sold darts in 12 different calibers. H. M. Quackenbush was making approximately 150,000 darts per year by 1884, and was quite possibly the largest dart manufacturer in the world.

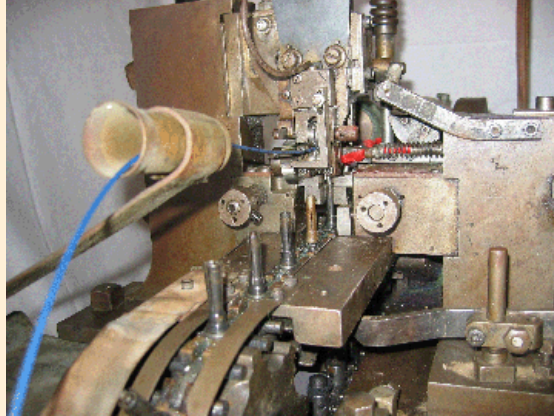


H. M. Quackenbush offered to the trade the privilege of having their own name appear on the envelope containing the darts; provided a sufficient quantity was purchased. All the darts sold by the Daisy Manufacturing Company between 1910 and 1933 were made by H. M. Quackenbush. It is possible that those sold during other years also came from H. M. Quackenbush, but those were the only years the author could document. All the darts sold by the Benjamin Air Rifle Company were made at H. M. Quackenbush until September 28, 1976. Since that time the Benjamin Air Rifle Company has manufactured their own darts on the last known dart manufacturing machine which they purchased from H. M. Quackenbush. The Benjamin Air Rifle Company packaged their darts in envelopes obtained from H. M. Quackenbush or similar until January 1980. At which time they switched to marketing them in "blister packs". Benjamin manufactured darts on this same Quackenbush dart machine until Crosman purchased the Benjamin/Sheridan Company in 1993. For an unknown period of time, Quackenbush supplied darts to S. E. Laszlo to be sold under the HyScore brand name.



The dart machine was designed to run off a mechanical overhead power transmission system, as was common in steam and water powered factories during the 1800s. With the availability of electricity the machine was converted to run on electric power. This was accomplished by building a cage of angle iron around the machine to support the overhead pulley system of controlling speed and provide a mounting platform for the electric motor. That way there was minimal modification to the speed control system of the dart machine. The speed of the machine is critical as it affects the timing of the various operations. The dart machine still works but is quite messy to operate as the mohair dust and trimmings gets all over the place making it is necessary to stop and clean it in order to maintain efficient production. When it left the Benjamin/Sheridan factory there were numerous air lines and vacuum lines on the machine to control the dust. The material last used for staking the mohair in place by the Benjamin/Sheridan Company was the plastic line used in weed control machines. The operator would sit in front of the machine using the foot control (clutch) to control the feed. The operator would manually place the metal ferrule part of the dart on the conveyor line, in a specially designed holder. The dart would move to the next station where the mohair wool would be moved automatically across the ferrule as would the material used to stake it in place. A staking ram would come down cutting the staking material, stake the mohair in place, and rough cut the wool. The conveyor would move the dart to each successive operation, next the mohair would then be brushed out, then cut to the proper length. As the dart emerged on the rear of the machine the conveyor would move under the deck of the machine back to the beginning of the process and the finished dart would fall out of the conveyor into a hopper for packaging.





For more information on the H. M. Quackenbush Company, guns, ammo, and other products the reader is referred to "Quackenbush Guns" available from JG Airguns, LLC, PO Box 830, Mundelein, IL 60060-0830, or www.jgaireguns.biz, 847-566-2365. The author is happy to discuss this dart machine or any other Quackenbush products with any interested readers.

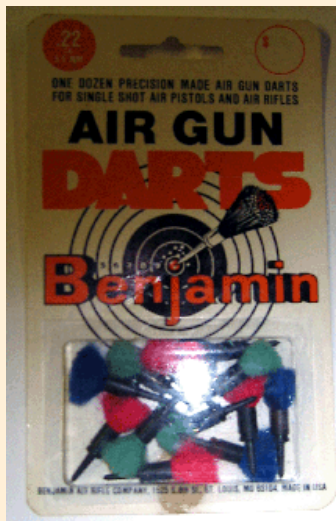


Figure 1: The envelopes were brown or tan with black ink and were approximately three and one half inches by two and three sixteenth inches.

Figure 2: A nice way to display airgun darts. Top .25 caliber, second row .21 caliber, bottom row .175 caliber.

Figure 3: The last known H. M. Quackenbush dart machine, with the electric motor removed for better viewing.

Figure 4: Darts coming out of the assembly stage, going through the wire brush combs. F

Figure 5: Staking string and wool being feed into assembly stage.

Figure 6: One of the last style darts made on this machine.

[Click here to order a copy of "Quackenbush Guns"](#)