The Bills of the St. John's Bahamas Wreck

By Corey Malcom

Reprint from *The Navigator: Newsletter of The Mel Fisher Maritime Heritage Society, Vol.21, No.5, September, 2005*

Figure 1. An epoxy cast of a bill recovered from the St. Johns Wreck.

Among the collection of objects recovered from the mid-16th century St. John's Bahamas Wreck is a group of four very cruel looking pole arms. The iron heads are covered with sharp edges and points sticking out in all directions, and it is obvious they were intended for some sort of violent activity.

Pole arms in general were a varied lot, but all had the same general purpose – to jab or cut or trip an opponent from a relatively safe and comfortable distance. The bill (*podadera* in Spanish), as this particular weapon was called, apparently was especially effective in this regard.

The origins of the bill appear to be rooted in agricultural implements and woodsman's tools known as "billhooks" (see Figure 2). Such tools are still used for cutting small trees and brush. The label is a somewhat generic one applied to many styles of polearm, but all with this name bear the unifying characteristic of having a crescent-shaped blade with the inside edge sharpened. Most also have a "backspike" opposite this cutting edge, along with a forward-looking point. Archaeological examples have been found on the 1545 English shipwreck *Mary Rose*[1], and at the early 17th century colonial settlement of Jamestown[2]. The *Armería Real* in Madrid houses similar pieces dating from the 15th or 16th centuries[3].

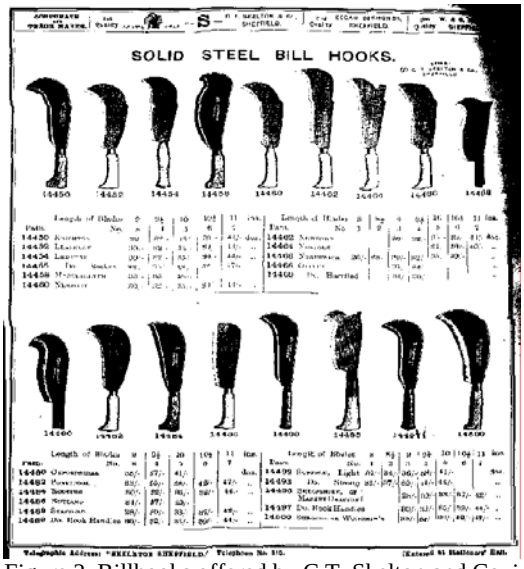

Figure 2. Billhooks offered by C.T. Skelton and Co. in 1896, Sheffield, England[4].

[1] http://www.maryrose.org/ship/hand1.htm

[2] *Arms and Armor in Colonial America, 1526-1783* by Harold Peterson, Bramhall House, New York, 1956.

[3] *Armería del Palacio Real de Madrid* by Guillermo Quintana Lacaci, Editorio Patrimonio Nacional, Madrid, 1987.

[4] See "A Load of Old Billhooks" by B. Burgess. http://www.heytesbury.freeserve.co.uk/index.html.

Treatises on swordsmanship and the use of pole arms written in 1598 and 1599 by George Silver contain considerable detail on the particulars of bill use[5]. In these Silver describes both a medium weight "forest bill," and a heavier "black bill." He very much favors the forest bill, and says flat out, "The Welch [Welsh] hook or forest bill have advantage against all manner of weapons whatsoever."[6] The reason for this was the broad, multi-use head as well as a staff of "perfect length." These qualities allowed the weapon to be useful from a variety of stances and positions. The head with its blade, barbs and hook, could cut, stab, or pull an opponent off balance.

The average staff length was between 8 and 9 feet; a figure determined by the user placing his hands as high on the staff as possible, and then adding another two hand-widths. The staff was long enough to offer some distance between the opponents, but was not too heavy or too flexible. It too could be used to strike or trip one's enemy, or block incoming blows.

Despite whatever idealism George Silver felt for these devices, such weapons on a ship would seem to be difficult to use with the limited deck spaces and rigging to get in the way. A specific reference to the use of polearms on Spanish ships in the 16th century clarifies this somewhat, saying, "*On both sides of the ship, pikes and half-pikes will be laid from port to starboard, the points in front of the loop holes* [of boarding nets], *so that anyone may find them at hand, in time of need, for wounding the one who might want to come aboard…*"[7] In other words, polearms (or pikes at least) were there to jab at anyone trying to climb onto the ship.

Figure 3. Soldiers battling with a variety of polearms as well as muskets, from Guaman Poma's, *Nueva corónica y buen gobierno*, 1615 - 1616[8]

As with many artifacts from this particular shipwreck, the heads of the bills have proved to be only rust encased by marine encrustation. To recover them a casting technique utilizing the encrustation as a mold was employed[9]. First, the encrustation (a very hard mixture of calcium carbonate and iron corrosion compounds) was broken open to make all areas of the object accessible. The remaining rust was removed, and the encrustation was then glued back into its original form. A pour hole and vent holes were drilled, and epoxy resin poured into the void. After it set, the encrustation

[5] *Paradoxes of Defence* (1598) and *Brief Instructions Upon My Paradoxes of Defence* (1599), both transcribed by Steve Hick (see http://www.thehaca.com/Manuals/BriefInstruct.htm and http://www.thehaca.com/Manuals/Gsilver.htm

[6] This observation is limited only in respect to one-on-one combat against other edged weapons.

[7] *Nautical Instuction* by Dr. Diego Garcia de Palacio, 1587. Translated by J. Bankston, Terrenate Associates, Bisbee, Arizona 1986.

[8] http://www.kb.dk/elib/mss/poma/

[9] Special thanks to the Spain-USA Foundation for their support of the conservation of these artifacts.

was removed via air scribe, and the epoxy cast given a surface treatment to create an appearance similar to that of the original object's.

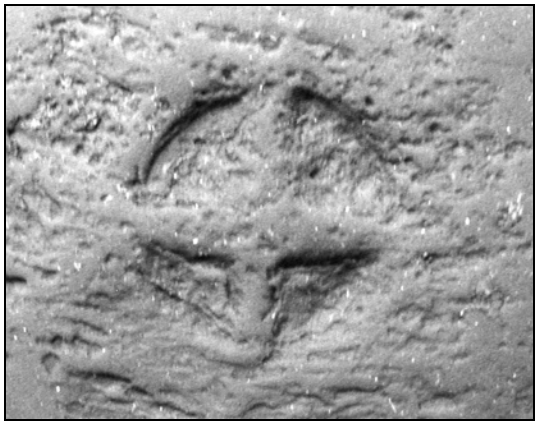

Figure 4. Maker's mark of a stamped cross within a circle from artifact #92-0859.

The one intact bill from the St. Johns Wreck is 60 cm long, and has a tapered socket for a staff of 4.7cm diameter (see Figure 1). There is no sort of opening for a fastener, and it appears to have been held on by friction. As the head is made of epoxy, its weight is not known.

Other incomplete examples are smaller, and mounted on shafts of 4.0cm diameter. They were held fast to the shafts by one or two iron rivets. Two of these bills bear a stamped mark of a cross set in a circle (see Figure 4). Though this mark is not traceable to a specific manufacturer, it does fit generally into the style of mark seen on other Spanish polearms from the 16th century[10]. Though none of these smaller examples is complete, there are weld scars from the backspikes still visible, and the lines that do remain can be extended out to reveal the bill form. One is bent as well, either from violent use or from having been in a shipwreck. A third piece is essentially a shaft socket with only a small fragment of the flat blade remaining. It was fastened to the shaft with square-shanked, iron rivet bearing an unusual, T-shaped head (see figure 5).

Figure 5. A detail of the T-shaped rivet used to hold the billhead to its shaft.

For whatever reason, those who sailed on the ship now known as the St. John's Bahamas Wreck felt the need to be well prepared for violent action. Added to the mix of bombardetas, versos, crossbows, pikes, and swords, the bills of the St. Johns Wreck only made the crew a much better defended group. Anyone who tried to come aboard the ship would have faced a tremendous fight against some very nasty weapons.

Figure 5. Two other bills recovered from the wreck. Various spikes have corroded or broken.

[10] *Armourers Marks* by Dudley S. Hawtrey Gyngell, Thorsons Publishers Ltd. London, 1959.