

SHOT AND SHELL INTO BAR IRON

DEWEES of Valley Forge and BIRDSBORO FORGES p 84 SM 41 M

Dewees and Mark Bird were well acquainted since they OWNED AND OPERATED Glasgow Forge (near today's Pottstown) in PARTNERSHIP from 1772 to 1778. Their operating contract survives. Then, Dewees had married into the Potts family. Thus, as VALLEY FORGE operator, he was operating his father-in-law's ironworks and was burned out there in 1777 after the British had won the Battle of Brandywine in September.

Tax Assessments show that Dewees operated the Birdsboro Forges from 1782 to 1785 and Hopewell Furnace during 1782 and 1783. At this time, Mark Bird was living at the Falls of Delaware (Morrisville today) building his \$200,000 ironworks, the biggest in the U.S. The fact that his silverware is assessed in Bucks County shows that he was living there. Dewees and Bird, as stated in other sections on furnace operations in this extended paper, were able to transfer the Furnace operations back to Mark Bird on Jan. 1, 1784 quite smoothly. Mark Bird simply began his Furnace Journal on Jan. 1, 1784, despite the ongoing blast at that very time.

SEVEN FORGE HAMMERS IN SIX MONTHS

The purchase of seven forge hammers in seven months reflects Dewees activity in hammering bar iron from pig and scrap cast iron and suggests that he may have operated all three of the Bird forges at Birdsboro. Tax Records reported varying numbers, two and three. However, there is no hint whatsoever that Dewees may have operated either the steel furnace or rolling mill existing at Birdsboro at this time. What the Dewees shovel moulds, hammered at the Birdsboro forges for the furnace, were is unknown, especially since price was not given. He probably sold stoves and wagon boxes (wheel bearings) bought from Hopewell Furnace at Birdsboro. Naturally, those retail prices are not in a Hopewell Record.

BAR PRODUCTION

"Pigmettle" naturally was the main Hopewell product needed by Dewees. And since Birdsboro was near the Philadelphia Pike, he may have purchased pig from other furnaces as well, although the Bird-Dewees agreement may have specified that he purchase a stated quantity of pig iron from Hopewell Furnace. Then, recall that he began forge operations at Birdsboro in 1782 and that pig purchases may not present a true picture of 1784 operations. His purchases from Hopewell Furnace were:

<u>Date charged</u>	<u>Quantity</u>	<u>Rate</u>	<u>Total</u>
April 30, 1784	40 Ton	5L	200 L
Dec. 31, 1784	120 Ton	5L	600 L
May 7, 1785	48.4 Ton	5L	241 L (p 9a)
" " "	1.3.2. SHOT & SHELL	7L 10Sh	8.18.1½
	.14		
<u>Total</u>	209.7.2		1049.18.1½ (about \$2793.00)

Why Dewees paid FIFTY percent MORE, 7 l 10 Sh a ton, for these shot and shell is unknown. But this purchase, as forge owner Passmore's cannon buying, demonstrated the making of "swords into plowshares".

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Based on bar production in the Perkiomen Valley (Gemmel) of three tons of bar from four tons of pig, Dewees hammered 157 tons of bar iron, mainly wagon-tire and horse-shoe iron for a horse-and-wagon economy. Based on the bar sold to Hopewell's blacksmith shop, 37 L 6 Sh a ton, about \$99, this bar output earned him a gross income of 5856 L, about \$15,577, based on pig bought from Hopewell only. His profits are unknown, since both labor and charcoal cost are not available. Less his pig costs, earnings were about \$12,784.

FORGE PLATE WEIGHTS

The firebox of a forge consisted of five cast iron plates two inches thick. Dewees needed nine replacement plates in 1784, and his forge plate purchases provided weights for these fire-box parts.

1.1.21	Weighed	152	Pounds	
2.0.6	"	230	"	and
1.3.15	"	211	"	Precise size in unknown.

DEWEES SOLD EQUIPMENT BACK TO BIRD

The Journal shows that Dewees sold the Birdsboro Forge equipment, including wagons and horses to Bird by May 7, 1785. This was the day he was charged 7L 12 SH a ton for the SHOT and SHELL, fifty percent over the pig iron price. The lower price may have been set by an operating agreement between Bird and Dewees. Pig price to contemporary forge-owner John Passmore was 10L 15SH a ton, but here was no final settlement charging Dewees this amount.