

# A Mid-Nineteenth Century Hoard of Counterfeit Silver Coins

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A small hoard of counterfeit silver coins with dates ranging from 1816 to 1845 will be described. All of the pieces fall into the category of cast white metal, tin, pewter or lead-alloy counterfeits and many have been mutilated by cutting, sometimes into pieces. That many of the fragments of the broken pieces have remained together suggests that this group might have been together since the middle of the nineteenth century.

There are 19 counterfeits as described in the table below and illustrated in figure 1.

No	Date	Denom	Damage (pieces)	Grade	Weight (g)	Comment
1	1816	1/-	Single cut and broken (2)	VF	4.099	
2	1816	1/-	Multiple cuts and broken (3)	VF	4.178	Significant metal distortion
3	1816	6d	Slight bend	fair/poor	1.843	
4	1816-20	6d	Slight bends	poor	1.812	Minor tin pest
5	1817	1/-	Single clean cut (2)	F	4.272	
6	1817	1/-	Single cut	nF	4.045	
7	1817	1/-	Single cut	nF	3.906	
8	1817	1/-	Slight bend	fair	4.253	Extensive tin pest
9	1818	5/-	Single cut	EF	20.659	LVIII edge. Very minor casting flaws and corrosion between letters.
10	1820	1/-	Slight bend	fair	3.968	Tin pest
11	1820	1/-	Single cut and broken (2)	nF	4.101	
12	1820-24	2/6	Three cuts	gF	11.500	Mule of George IV obv with George III rev. Surfaces look very good.
13	1825	2/6	Chisel hit, breaks through	VF	11.170	
14	1826	1/-	Single cut	VF	4.497	
15	1829	2/6	Two chisel hits, both break through	nVF	10.631	Surface corrosion
16	1834-37	2/6	Piece broken off	gF	9.373	
17	1840	1/-	Pieces broken off	F	2.718	Coarse surface due to corrosion
18	1845	2/6	Multiple chisel hits and broken (2)	F	10.027	
19	1845	1/-	Two cuts (2)	aVF	4.203	

**Table 1.** Details of the counterfeit silver coins.

The grade of each piece is an estimate of what the counterfeit would have looked like at the moment of detection, prior to the imposed damage, subsequent corrosion and tin pest.



**Figure 1.** The hoard of counterfeit silver coins. Image brightness enhanced to allow easier identification.

The metals of all of the pieces have been tested using a Niton 950 XL2 analyser with a metals calibration. For whole pieces a single measurement of the central area of the obverse was taken and for broken pieces the obverse of the largest fragment was tested. The results are tabulated below.

No	Sn	Sb	Cu	Pb	Si	Fe	Bi	Zn	Ar	Au
1	84.25	9.93	1.97	1.93	1.67	0.123	0.047	-	-	-
2	82.29	13.82	1.74	1.21	0.652	0.114	-	-	-	-
3	81.96	13.66	1.32	1.93	0.947	0.137	0.018	0.019	-	-
4	83.98	9.42	2.31	2.35	1.28	0.312	0.045	0.027	0.120	0.090
5	85.39	9.17	2.44	0.951	0.795	0.224	0.075	0.505	-	-
6	85.25	9.47	2.21	0.889	1.04	0.096	0.128	0.451	-	-
7	85.94	8.77	2.41	0.888	0.824	0.184	0.030	0.629	-	-
8	86.32	6.84	2.38	1.39	1.50	0.239	0.025	0.029	0.628	0.049
9	85.58	9.84	2.39	0.994	0.740	-	0.028	0.382	-	-
10	82.92	13.57	1.35	0.648	0.685	-	0.023	-	0.174	-
11	82.05	14.57	1.69	0.604	0.868	0.125	-	-	-	0.030
12	40.95	4.10	0.135	0.017	0.333	0.167	0.022	-	53.67	0.050
13	86.17	7.22	1.71	2.12	0.611	0.071	0.032	-	2.00	0.025
14	85.15	9.53	2.75	0.970	1.22	0.121	0.060	0.195	-	-
15	84.94	8.56	2.33	0.833	0.156	-	0.063	0.445	2.41	-
16	80.82	11.97	1.58	1.42	0.620	0.133	0.039	0.235	2.88	-
17	81.90	13.60	0.842	0.914	0.303	0.200	0.663	0.981	0.557	-
18	81.52	13.81	1.84	1.62	0.522	0.138	0.023	-	0.277	0.064
19	80.94	15.50	1.67	0.712	-	-	0.019	-	1.04	-

**Table 2.** Elemental composition of the counterfeit silver coins determined using XRF analysis.

Most of the pieces (1-11, 13-19) fall into the range;  $80.2 < \text{Sn} < 86.3\%$ ,  $6.8 < \text{Sb} < 15.5\%$  and  $2.8 < \text{Cu} < 0.8\%$ . This is typical of pewter. Mercury was below the level of detection for all of the pieces. A few pieces show measurable concentrations of silver and gold. As the XRF method cannot distinguish between surface coating and bulk composition and whilst this is likely a surface coating, not obvious to the eye, the results cannot be considered conclusive without using alternative analytical methods or removing the surface of the counterfeit.

Whilst most of the pieces blend in with the counterfeit silver coins of the period, two are worthy of further note. Item 9 whilst cast, is of significantly better manufacture than the others, with a complete and deceptive edge reading only being given away by vestiges of the casting sprue. The piece displays much original colour, but the colour isn't quite silver. Being a high value coin, it would have received closer inspection than smaller denominations and at 27% underweight its base nature is revealed.

Item 12 appears to be of a completely different composition. The colour, the surface texture and the quality of the casting are all superior to the other pieces. However the convincing silver plating is betrayed by the piece being 18% underweight. The casting sprue and the test cuts reveal the base core to the eye.

The counterfeit silver coinage of the first half of the nineteenth century shows a distinct transition in the methods of manufacture. Prior to about 1824 hand-cut dies were used on an industrial scale to strike copper and brass blanks that were then silver plated. Sometime around 1825 this had been almost completely replaced by casting in moulds taken from circulating coin. The use of low melting point alloys such as pewter meant this could be carried out on a small scale with less equipment and skill. It is thus likely that all of the pieces in this hoard were manufactured after 1825.

This group of counterfeits was acquired without a provenance and may just be a random accumulation. However that several of the broken pieces can be put back together to form a whole coin suggests a group that has been deliberately kept together since the time of detection, possibly by a shopkeeper or publican in the mid nineteenth century.