

WARNING - Deceptive Medieval Counterfeit Silver – Henry IV Half Groat

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Introduction

A few weeks ago GO was asked for an opinion on a few medieval hammered silver coins. One piece was the Henry IV half groat shown below.



The piece is a Henry IV light coinage half groat from 1412. From Dave Greenhalgh's book Obv. 1. Rev. 4.⁽¹⁾

The coin weighs 2.010g and the die axis is 4 o'clock.

A quick XRF analysis of the main (heavy) elements gave results as follows:

Ag = 87.82%, Cu = 10.9%, Pb = 0.178%, Fe = 0.053%, Zn = 0.711%, and Ni = 0.274%

The absence of Bismuth (Bi) was of concern, but on sending photos to DG the piece was considered OK. The piece was returned to the owner. The absence of Bi however would make this the first medieval hammered coin tested by GO to lack this element. The coin either is or is not ok, there is no grey area.

DG adds - on examining the photograph of the coin it appeared to originate from my type 1 / 4 die pairings and was, when the halfgroat book was published, only known from a single specimen - that being in the British Museum. At the time of receiving the photo of the piece in question was also following, on ebay, an example of Henry IV light coinage halfgroat that came from die pairings 3 / 4 a previously unknown combination (That coin I acquired and is no 007 in fig. 1 below).

The surviving specimens of light coinage halfgroats numbers some 25 from 3 obverse and 6 reverse dies so new die combinations are not unexpected.) on discussing the questionable piece with GO, DG agreed to bring his small collection of Henry IV related halfgroats for comparative XRF analysis and at the same time carry out a much closer examination of the questionable piece.

XRF Testing of Contemporary Pieces

The questionable coin was borrowed again and DG provided eight contemporary half groats to be analysed and compared as follows.

#	Type	Obv. die	Rev. die	Weight (g)	Die Axis	Comments
002	Henry IV heavy coinage	1	1	2.103	12	Die pair duplicates
003	Henry IV heavy coinage	1	1	1.625	12	
004	Edward III / Richard II mule	6	1ii	1.969	7	Die pair duplicates
005	Edward III / Richard II mule	6	1ii	2.116	8	
006	Henry IV light coinage	2	2	1.897	7	
007	Henry IV light coinage	3	4	2.025	1	
008	Henry IV / Henry V mule	2	Class B, 4	1.286	3	
009	Henry V class B	1	5	1.794	6	

These are all illustrated below.

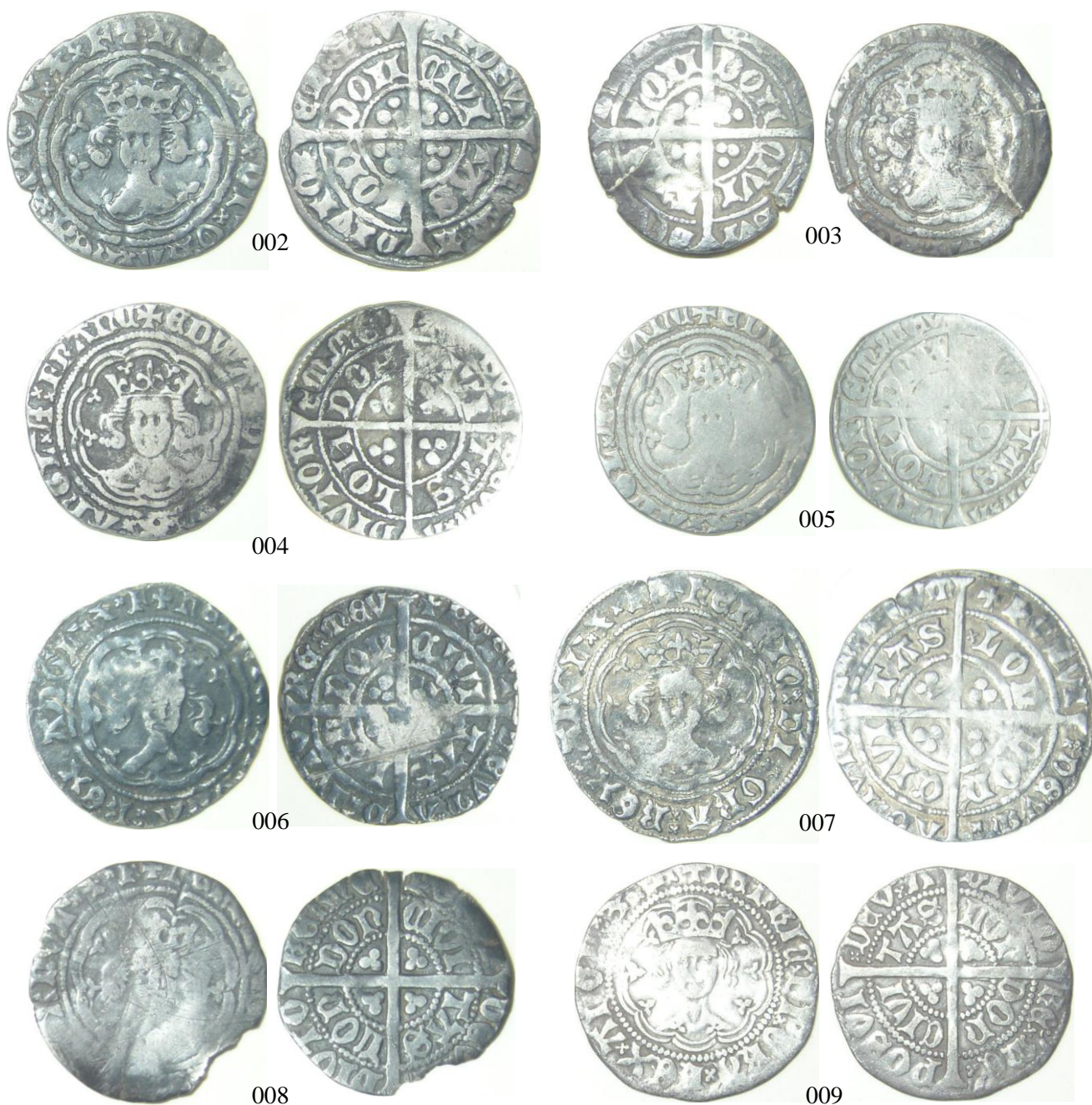


Fig. 1. Half groats to be analysed.

The table on the following page presents XRF data for all 1+8 pieces. For each coin the analysis was carried out on the middle of the obverse and two measurements were made. The first measurement takes 10 seconds and is used to identify the main (heavier) elements and the second measurement takes a further 20 seconds, using a modified X-ray source, and allows the quantification of the lighter elements.

#	XRF	time (s)	Ag	Cu	Pb	Au	Fe	Zn	Bi	Ni	Cd
001	Short	10.8	87.82	10.9	0.178		0.053	0.711		0.274	0.035
	Long	31.5	87.07	10.86	0.179			0.665		0.191	0.029
002	Short	11.3	95.78	2.69	0.662	0.534	0.197	0.052	0.029		
	Long	30.2	94.35	2.74	0.712	0.48		0.046	0.034		
003	Short	10.8	95.69	2.74	0.78	0.514	0.134	0.051	0.04		
	Long	31.8	93.04	2.71	0.785	0.516	0.186	0.048	0.03		
004	Short	10.1	95.89	2.53	1.04	0.182	0.32	0.027	0.014		
	Long	30.9	91.91	2.56	1.01	0.181	0.339	0.017	0.014		
005	Short	11.1	95.24	3.48	0.618	0.541	0.071	0.021	0.031		
	Long	30.3	92.60	3.24	0.588	0.544	0.115	0.032	0.033		
006	Short	10.9	94.31	2.84	0.912	0.306	1.58	0.018	0.036		
	Long	31.9	93.59	2.86	0.922	0.282	1.6		0.032		
007	Short	10.9	96.37	2.36	0.828	0.372			0.076		
	Long	30.4	94.53	2.38	0.842	0.356			0.075		
008	Short	10.3	94.55	2.88	1.34	0.444	0.713	0.021	0.04		
	Long	30.4	91.49	2.77	1.24	0.473	0.649	0.02	0.049		
009	Short	10.9	95.66	2.61	1.2	0.349	0.105	0.017	0.047		
	Long	30.1	93.23	2.53	1.15	0.332	0.137	0.024	0.046		

Table 1. Heavy element composition (%) for short and long XRF measurements

#	XRF	time (s)	Pd	Nb	Si	P	Zr	Sb	Al	Zn	V
001	Short	10.8	0.022	0.01							
	Long	31.5	0.038		0.897	0.068					
002	Short	11.3	0.042	0.01			0.007				
	Long	30.2			0.992	0.066					
003	Short	10.8		0.01			0.004	0.041			
	Long	31.8	0.045		1.48	0.119			1.04	0.048	
004	Short	10.1									
	Long	30.9			2.36	0.062			1.31		0.224
005	Short	11.1									
	Long	30.3			1.63	0.152			1.06	0.032	
006	Short	10.9									
	Long	31.9	0.022		0.496						0.19
007	Short	10.9									
	Long	30.4			0.796	0.164			0.85		
008	Short	10.3					0.005				
	Long	30.4			1.54	0.184			1.58		
009	Short	10.9									
	Long	30.1			1.38	0.119			1.05		

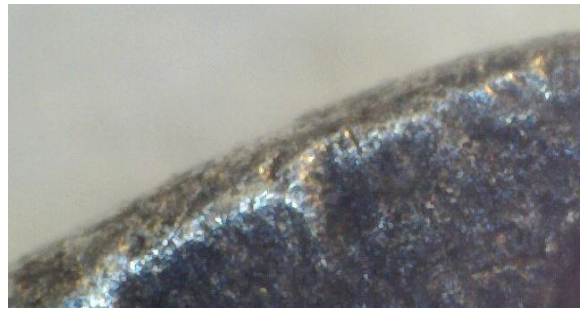
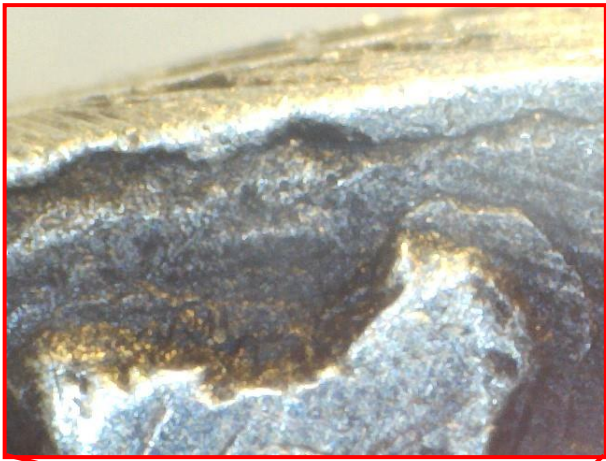
Table 2. Lighter element composition (%) for short and long XRF measurements.

This confirms that coin 001 lacks any traces of gold (Au) and bismuth (Bi) whereas all of the genuine coins have easily measurable fractions of both of these elements. For coin 001, the silver (Ag) is also slightly lower than that of genuine coins and the copper (Cu) significantly higher. The presence of nickel (Ni) and cadmium (Cd) in coin 001 is also suspicious as it is totally absent from the genuine coins.

Of the lighter elements, silicon (Si) and phosphorous (P) are common to all nine coins and is likely surface contamination. There is no simple differentiator in the lighter elements.

Thus there is something very different about the composition of coin 1 when compared to the other 15th century half groats.

Looking more closely at 001 and 007, the subterfuge starts to be revealed.



001

007

Fig. 2. Close-ups of coins 001 and 007.

Coin 001 shows a very fine metal flaw close to the edge near MEVM on the reverse, and the edge of the whole coin is heavily scored. The beading on 001 is narrower and sharper and there are no visible scribe marks used by the die engraver to mark the inner circles. The saltire crosses look more “chiselled” on 007 than the rounded crosses on 001. There are many deep scratches across the surfaces of 001.

DG adds - After examining the piece under a powerful lens I also raised considerable doubts on the authenticity of the coin based on the lack of marks in the field by the letters and beaded borders. These are commonly found when the letters etc are punched into the die matrix causing displacement of the matrix metal. These features can be just discerned in fig 2 no 007. The absence of the displacement marks is usually the result of a spark eroded die or a laser cut one.

Whilst carrying out the analysis, DG remembered seeing a modern “replica” of a Henry IV light coinage half groat on eBay. A couple of specimens were found in the sold listings and another is currently for sale. The piece shown below is fuller, rounder, higher grade and well made. Being sold quite correctly as a souvenir or novelty to be used as a gap filler, and counterstamped with an R on the reverse to indicate Replica.



Fig. 3. Modern replica of a Henry IV light issue half groat.

Zooming in on the edge on the reverse near DEVM reveals a long line caused during the casting process.



Fig. 4. Tell-tale edge feature from casting

Looking more closely at coin 001 reveals that it is actually one of these replicas that has been deliberately distressed by scratching the surface and filing the edges.

Zooming in and searching the reverse of coin 001 shows where an attempt has been made to scratch away the R countermark.

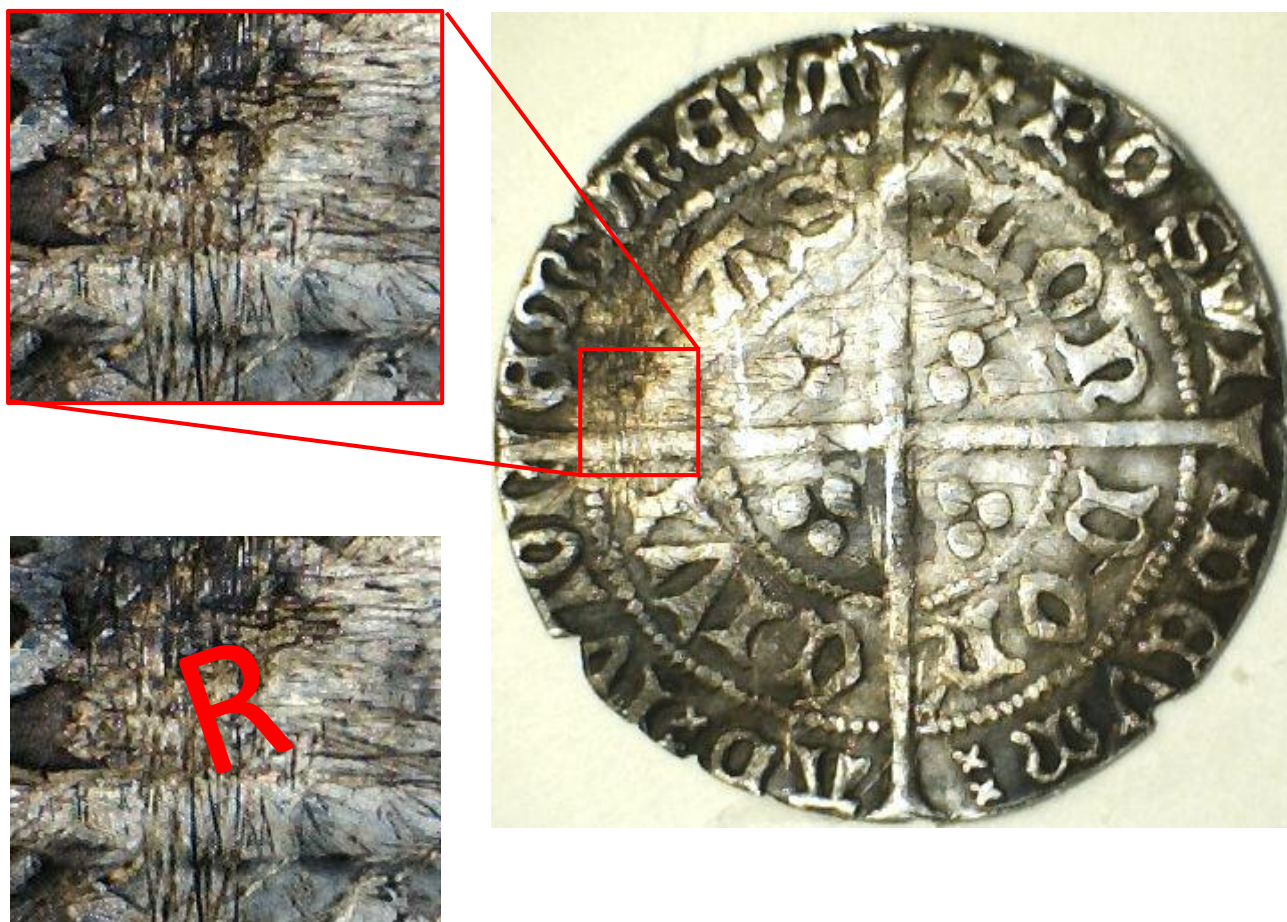


Fig. 5. Attempted erasing of the R countermark.

Conclusions

This coin 001 is a modern replica. The original replica has been manufactured and sold in good faith, being correctly described and counterstamped with an R.

The replica has subsequently been distressed with its edge filed to try to remove the casting line and the surface scratched to try to remove the counterstamp. Other “wear”, damage and toning has been added to the surfaces and edge of the replica to disguise the subterfuge. The result is extremely convincing and dangerous.

This is a deliberate act of deception.

This deception should be detectable with a good magnifying glass and the fields of the replica are very good when the level of superficial damage is considered. A genuine coin with this level of deep damage would also have worse fields. Two other pieces have been seen, likely from the same workshop, that have been created from easily available replicas of rare coins – a William II penny and a Henry I penny.

Reference

- (1) Greenhalgh, D.I. *The Galata Guide to Medieval Half Groats, Edward III – Richard III*. Galata, Llanfyllin, 2010.

