

# 1882 O over S Morgan Dollar EDS vs LDS?

(Originally published in Vol 19 No. 5, September/October 2010 *Errorscope*)

by Leroy Van Allen

There has recently been some discussion (May 2010) about the early and late die states of the 1882 O over S Morgan dollar and the possibility that their die sequences were actually reversed. For over thirty years it has been documented that the die state of the three known 1882 O/S varieties, VAMs 3, 4 & 5 with only a partial recessed diagonal bar showing inside the O mint mark were the earlier die states. Those die states showing a full smooth top diagonal bar were thought to be the later die state. But actually, could the EDS be the one that exhibits more of the pre-punched S and the more that the die was used, the boldness of the underlying S diagonal bar would have faded away?

This article only examines in detail one of the three known 1882 O/S varieties, the VAM 3. The other two 1882 O/S varieties, VAMs 4 & 5

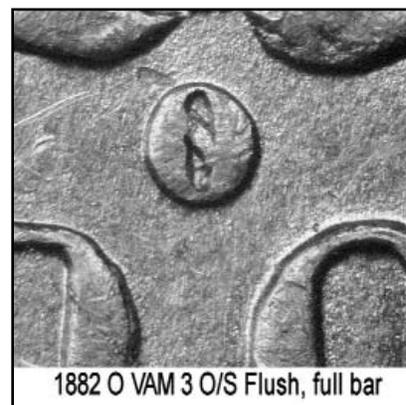
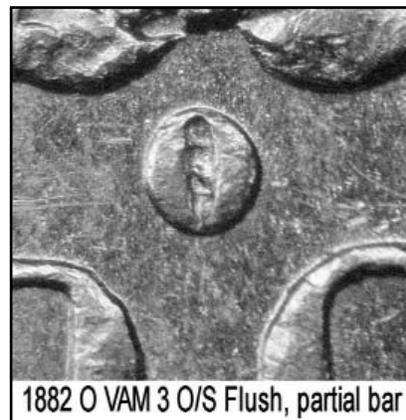
would have the same die sequence as the VAM 3 and aren't treated to keep this article at a reasonable length and number of photographs. The accompanying photographs show the full and partial diagonal bars for these three O/S varieties, VAMs 3, 4 & 5.

## Historical Background

But first a bit of background on these well-known 1882 O/S Morgan dollar varieties. The 1882 O/S VAM 3 Flush and VAM 4 Depressed with full diagonal bars were first pictured by Francis Klaes in his 1963 pamphlet *Die Varieties of Morgan Silver Dollars*. VAM 3 was identified as a possible O over O and VAM 4 was identified as a possible O over S. VAM 5 with short full diagonal bar was shown and listed as O over S Broken in Van Allen's December 1965 book *Morgan and Peace Dollar Varieties* which also listed the VAMs 3 and 4 as O over S die varieties.

George Mallis in his June 1965 draft of a book *United States Silver Dollar Morgan Type* listed the partial bar die state of VAM 3. This was mistakenly listed and pictured as a separate die variety of VAM 6 O/S Line in the 1971 Van Allen & Mallis book, *Guide to Morgan and Peace Dollars*. Bill Fivaz reported the partial bar die state of VAM 4 in October 1975. This was written up by Bill Fivaz in the July 1976 *Errorscope*, VAM Club-Within-A -Club Report #8 and was mistakenly listed as a new VAM 17 O/S Dot variety. The 1976 edition of the Van Allen-Mallis dollar book listed the three full bar varieties VAMs 3, 4 & 5 and two known partial bar varieties mistakenly as VAM 6 and 17 varieties.

Jim Baxter reported the partial bar die state of VAM 5 in December 1976. This was written up and pictured by Bill Fivaz in the August



1977 *Errorscope*, VAM Report #21, as a mistakenly new VAM 23 O/S Left variety.

In the July 1978 *Errorscope*, VAM Report #29 by Leroy Van Allen, photographs and discussion showed that VAMs 3 full bar and VAM 6 partial bar were the same die with identical die rust spots in the reverse wreath bow. See accompanying recent photographs of VAM 3 full and partial bars showing that they are the same die. It was mentioned in that report that this change of die state was due to progressive design exposure due to the removal of die chips over the time period of the die. It was also mentioned that the VAM 3 reverse was polished down several times due to clash marks with over polished eagle's right wing but no photographs were provided of this polishing. So VAM 6 listing was eliminated at that time and became a die state of VAM 3. Later in the early 1980s, it was shown that the mistakenly listed VAMs 17 & 23 O/S partial bars were early die states of VAMs 4 & 5 full bars respectively and is so stated in the 1992 & 1998 VAM books with VAMs 17 & 23 O/S eliminated.

### Die States of VAM 3

A more detailed examination of the die states of two VAM 3 coins of full bar and partial bar O over S follows with accompanying photographs.

o 1882 O/S raw AU55 VAM 3 partial S bar.

Obverse-- No die cracks. Over polished neck front and lower hair. No die wear lines or roughness in fields. Close to semi-PL fields.

Reverse-- No die cracks. No die wear lines or roughness in fields. Close to semi-PL fields. Rusted die pits on eagle. Eagle's right wing not over polished. No die clash marks.

o 1882 O/S raw AU50 VAM 3 full flush S bar.

Obverse-- Fine die cracks between left 3 & 4, 2 & 3, and right side of 1 & 2 left stars. Over polished neck front and lower hair. Faint roughness in peripheral of fields from die wear. Still has faint reflections in field. No die clash marks.

Reverse-- Fine die crack right side of D in UNITED over thru wing tip to right side of wing tip to top of S. Fine die crack between NIT tops. Faint die clash mark to left of right wreath top and below bottom of eagle's left wing. Rusted die pits on eagle. Still has faint reflections in fields. Over polished die on eagle's right wing in attempt to remove die rust pits.

### Findings

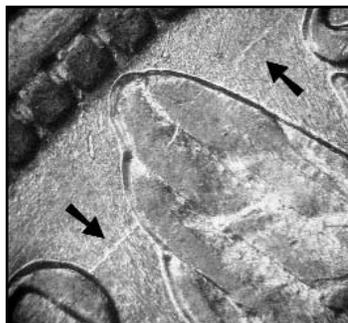
1882 O/S VAM 3 with full diagonal bar within the O and partial diagonal bar are the same dies. The full diagonal bar is a later die state than VAM 3 with partial diagonal bar because of the die cracks in UNITED, die clash marks at top of wreath and below eagle's left wing and over polished die at eagle's right wing.

### Die Chip Process

1882 O over S VAM 3 full bar doesn't show tiny die chips at edges. I don't have any knowledge of metallurgy. But it would seem that a punch of O over S mint mark would force the



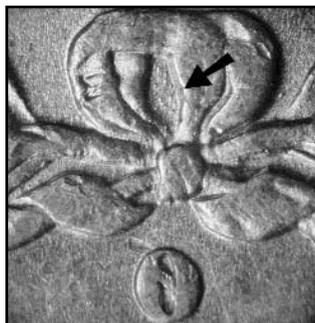
1882 O VAM 3 O/S full bar, Die Clash Mark



1882 O VAM 3 O/S full bar, Die Crack D-S



1882 O VAM 3 O/S full bar, over polished wing



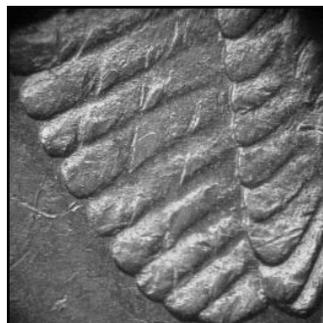
1882 O VAM 3 Full bar, Rust pitting bow



1882 O VAM 3 O/S partial bar, No clash mark



1882 O VAM 3 O/S partial bar, no die cracks



1882 O VAM 3 O/S partial bar, wing not over polished



1882 O VAM 3 Partial bar, Rust pitting bow

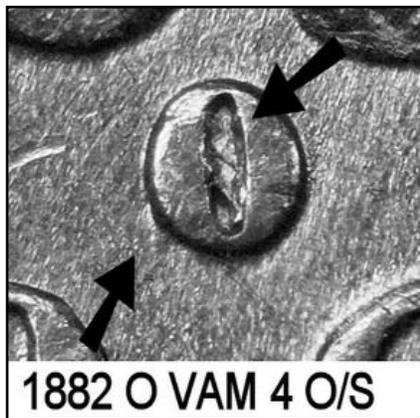
metal into the S bar cavity with just a pressure boundary of filled metal onto the bar cavity. It would not be as strong as the normal die crystalline structure. Perhaps the pressure boundary could separate cleanly with smooth surfaces of the original S bar cavity resulting in no tiny die chips of usual die breaks. It might be possible that a big piece of the die fill separated from the stress of die striking coins which resulted in a quick tran-

sition from the few raised lines of the early die state to a full bar. A gradual transition from partial to full bar has not been seen on the coins. Maybe someone can provide a better more scientific explanation of the O over S change in appearances.

**Conclusion**

1882 O/S VAM 3 with full diagonal bar was deeper in die and a later die

state than partial diagonal bar. It is logical that metal at partial diagonal bar was therefore later removed to create the full raised bar with smooth top and sharp sides. Die chips removed from stress of striking coins likely created the smooth bar rather than die wear which would have produced rounded edges.



**VAMs 4 & 5**

A brief examination of the VAMs 4 & 5 O/S full bars is summarized below. The VAMs 4 & 5 with partial bars was not examined at this time, but likely don't show the die cracks or die clash marks of later die states.

**VAM 4 raw AU55** with full recessed bar. Reverse has fine die crack from right side of D in UNITED thru wing tip over to denticles above S. Die crack top of STAT and another from tip of eagle's left wing over above A in AMERICA and at top of RIC. Fine pitting all over eagle.

**VAM 5 raw AU50** with full short bar. No evidence of die cracks on obverse or reverse. Fine rust pitting all over eagle. Faint die clash mark at top left of right wreath. ■

