

## 1898 1¢ Franklin (Scott #279) Watermark Varieties

By Len McMaster

### Introduction

I have occasionally seen stamps with watermark orientations other than "normal" offered for sale at a premium on eBay, yet my experience would suggest that no one orientation is more rare than any other. Thus I set out to examine a sample of the stamps in my collection to verify this observation and will report my research here. In addition, I will discuss other watermark varieties and report three plate numbers with vertical watermarks, previously unknown. Note that I collect and study only the 1898 1¢ Franklin, Scott #279, so my remarks relate only to that stamp.

### Watermark Production

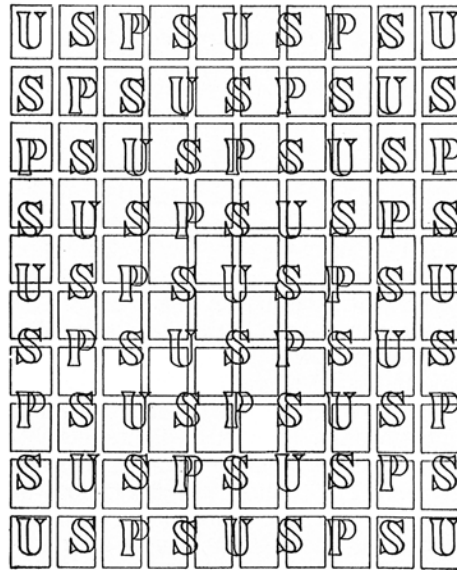
A discussion of making paper and the application of watermarks by the "dandy roll" during the process can be found in many references including L.N. Williams, *Fundamentals of Philately*.<sup>1</sup> A general discussion of watermarks can also be found in Williams and other sources.<sup>2,3</sup>

In 1895, watermarked paper was introduced in the production of the First Bureau Issues. John Luff and others have suggested that the introduction of watermarked paper was a security measure to counter an attempt to counterfeit the 2¢ stamp;<sup>4</sup> however, George Sloane and others have argued that the watermarked paper must have already been "on order long before the discovery of the ... counterfeits" on March 31, 1895, less than a month before the issue of the first stamp on watermarked paper.<sup>5,6</sup>

The watermark employed consisted of double-lined Roman capitals "USPS" (Figure 1) in a pattern such that at least part of a letter can be seen on each stamp. Figure 2 shows how the watermark looked on a pane of 100 stamps.<sup>7</sup> Weiss and Nylander referred to this pattern as the "backward-stepping" double line watermark in a series of articles in *The United States Specialist* from August through November, 2009, in which they discuss the discovery of a "forward-stepping" pattern on Bureau issues after January,



Figure 1. Double-line USPS watermark.



**Figure 2. Scott catalog illustration of the double line watermark superimposed on a pane of 100 stamps.**

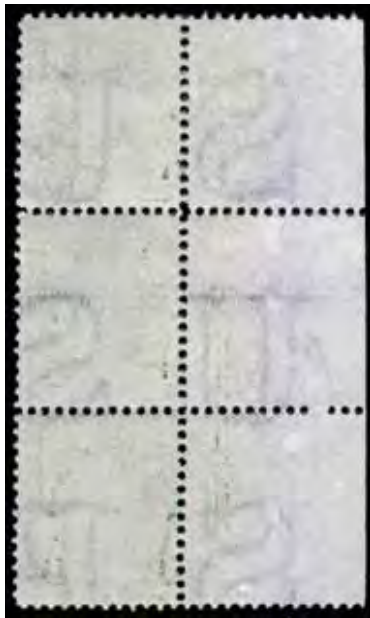
1903.<sup>8,9,10</sup> However, they state that “no use of forward-stepping paper appears to have occurred prior to January, 1903,”<sup>11</sup> i.e., none had been observed on any of the First Bureau Issues, including the 1898 1¢ Franklin.

An unintentional “watermark” consisting of small irregular parallel lines is also created in the production of paper where the ends of the wire cloth on which the pulp is assembled are stitched together to create the “endless” cloth used.<sup>12</sup> An example of this is shown in Figure 3.

**Double-Line Watermark Orientation on the 1898 1¢ Franklin**

While watermarks are generally intended to be read from the front surface of paper, stamp collectors tend to describe them as viewed from the back of the stamp, it being easier to detect in this manner with watermark fluid in a black tray. Thus I will adopt this convention in describing the orientation of the watermark found on 1898 1¢ Franklins, but given the “equal” distribution, the important point to remember is the relative occurrence of the four orientations, not necessarily how they are described.

Depending on how the watermarked paper is placed on the printing plate in the press, the watermark may appear in any one of eight orientations—normal, reversed, inverted and inverted-reversed, for both horizontally (left to right) and vertically (bottom to top) reading watermarks, as shown in Figure 4. To determine whether any one orientation is more prevalent than another, I examined over 500 singles and plate number strips of three or other multiples of the stamps in my collection, all with a horizontally reading watermark. I examined 293 plate number strips, primarily top, left and right positions, so that the watermark was easily observed in the selvage with a light box. I examined 118 of the 273 plate numbers used by the BEP from plate numbers 439 to 1508.<sup>13</sup> I also examined over 200 individual stamps using watermark



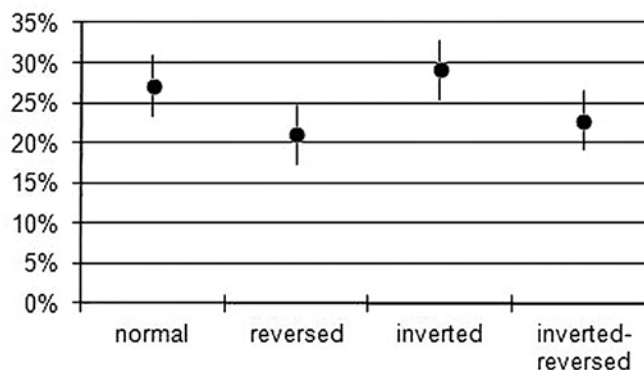
**Figure 3. Unintentional “stitch watermark” consisting of small irregular parallel vertical lines where the ends of the wire cloth on which the pulp is assembled were stitched together.**



**Figure 4. Watermark orientations: normal, reversed, inverted and inverted-reversed (top to bottom) as viewed from the back of the stamp.**

fluid and tray, but only recorded the orientation on 145 of them, many being impossible to tell the orientation on a single stamp. In total I recorded 438 examples. I do not believe there to be any significant bias in the sampling, but even 438 samples is quite small in comparison with the more than 13 million sheets of 400 that were printed. (The quantity of stamps issued is estimated to be 5,216,159,932.<sup>14</sup>)

Based on the near equal distribution, I assumed an equal distribution to estimate a standard deviation in the sampling to generate the graph shown in Figure 5, confirming my earlier belief that no orientation of a horizontally reading watermark is rare or even unusual. Table 1 provides the data used to



**Figure 5. Horizontal watermark orientation distribution on the singles and plate number strips examined.**

**Table 1. Distribution of Horizontal Watermark Orientations Observed.**

Orientation	Singles	Plate Numbers			Total	%
		439-574	766-995	1000-1508		
Normal	42	57	7	10	116	27
Reversed	32	44	11	6	93	21
Inverted	27	86	6	10	129	29
Inverted-Reversed	44	33	15	8	100	23
Totals	145	220	39	34	438	100

develop Figure 5, including how the watermark orientation is distributed on the singles and three arbitrary groupings of the plate number strips examined. While it is clear that I have many more low plate number strips used in printing the 1¢ Franklin (plate numbers 439-574) than plate numbers above 766, I wanted to see if there was any obvious bias in the watermark orientation over time (early 1898 to January, 1903<sup>15</sup>). There are some differences noted in the orientation distribution versus plate number, but all seem to be within a reasonable error estimate given the smaller sample in each grouping.

#### **Vertically Reading Watermarks on the 1898 1¢ Franklin**

As early as 1976, Fred Pitcher reported the discovery of what he described as a “sideways” watermark on both the 1¢ (Scott #279) and 2¢ (Scott #279B) First Bureau Issues. Following this discovery, Pitcher, Clarke Yarbrough and Bud Dickey examined their collections, compared notes, and reported that these “sideways” or vertical watermarks were found on six of the 1¢ (Scott #279) plate numbers, including 1207, 1329, 1330, 1340, 1342 and 1379.<sup>16</sup> In 1997, Ken Diehl reported additional 1¢ plate numbers with the vertical watermark, expanding the list to 13, including 1206, 1207, 1315, 1328-30, 1340-43 and 1377-79. Diehl concluded from his investigation of the printing history of the plate numbers reported, i.e., when these plates were used, that the vertical watermark printings took place sometime between April 16 and May 28, 1902; and that the seven “unreported plates” used during the same time included 1204, 1205, 1316, 1317, 1318, 1331 and 1376.<sup>17</sup> The *Durland Standard Plate Number Catalog*



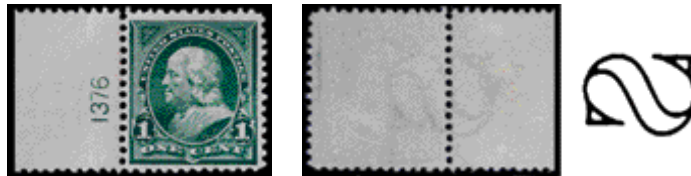
**Figure 6.** Vertical watermark on plate number 1317, viewed with light box (upper left) and watermark fluid (upper right); horizontal watermark on plate number 1317, viewed with light box (lower left) and watermark fluid (lower right).



**Figure 7.** Vertical watermark on plate number 1331.

lists one additional plate number on the 1¢, plate 1318<sup>18</sup> and two additional plate numbers with the vertical watermark were found in Bill Schuman's collection, plate numbers 1317 (Figure 6) and 1331 (Figure 7). Note that Figure 6 shows two top plate number 1317 strips, one with a horizontal watermark and one with a vertical watermark; thus it should be noted that while vertical watermarks have been found on the plate numbers listed, not

all these plate numbers should be expected to have vertical watermarks.<sup>19</sup> Subsequent to this study of watermark orientation a plate number 1376 single was found with a vertical watermark (Figure 8), leaving just three unreported plate numbers (1204, 1205, and 1316) believed to have been printed with vertically watermarked paper, and I suspect in time these will be found as well.



**Figure 8. Vertical watermark on plate number 1376.**

Looking at the orientation of the vertical watermarks, I have two with what I describe as inverted watermarks and one that I describe as reversed, too few to say much about their scarcity, other than that they clearly aren't all one orientation.

### **Conclusion**

It is clear that at least for the horizontally reading double line USPS watermarks, there is no orientation that is significantly more prevalent than another, and no reason to ascribe a premium value to one orientation over another. It is also clear that we must always remain vigilant in our observations as there is always something new out there to be discovered and reported to the philatelic community.

### **Acknowledgement**

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