Tiny Marks and Other Reasons Grinnells are Fake

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> "They were undone, destroyed, after all of man's weapons and devices had failed, by the tiniest creatures that God in his wisdom put upon this earth."
>
> —H. G. Wells, *War of the Worlds*

Introduction

The so-called "Grinnells" are a group of stamps purporting to be rare Hawaiian "Missionary" stamps issued in 1851 by the postmaster in Honolulu for use on mail to and from the islands. When the Grinnells were sold in 1919, they became the focus of a lawsuit between the stamps' discoverer, George Grinnell, and the dealer to whom he sold them, John Klemann. After considering all of the evidence and testimony, including opinions from philatelic experts, the judge in the case ruled that the stamps were forgeries and ordered Grinnell to refund the buyer's money.

In recent years, the parties who inherited the Grinnells have tried to prove the stamps genuine by asserting that previous statements were wrong and by enlisting the assistance of various experts. Their claims and evidence were reviewed by The Royal Philatelic Society of London's esteemed Expert Committee. In 2004, after two years of careful study and deliberation, the RPSL reached its opinion that the Grinnells were forgeries. In 2006 the RPSL published a 96-page hardbound book detailing the results of their investigation (1). Nonetheless, the stamps have had their supporters, whom we shall call the "Grinnellites." Seemingly endless dialogue in printed publications, on the internet and at collector gatherings has kept the controversy alive (2).

There are numerous reasons why the Grinnells have been judged to be forgeries by the RPSL and others. Some reasons have been challenged by the Grinnellites, and, to their credit, certain misconceptions and misinformation have been corrected. The absence of definitive proof that the Grinnells are either genuine or fake has given the Grinnellites an opportunity to propose theories to explain the anomalies and to discredit the anti-Grinnellites' entire case by highlighting certain errors in previous research and conclusions based on weak or non-existent evidence.

To bolster their view that the stamps are genuine, the Grinnellites have espoused a theory that the Grinnells come from an entirely separate printing, which used settings of slightly different type and ornaments. The Separate But Equal Theory of Missionary stamp production justifies the significant differences between the Grinnells and genuine Missionaries, yet it undermines the standard philatelic expertizing practice of comparing and identifying differences between a known genuine example and a subject item. Any and all differences in the printed impressions identified by anti-Grinnellites have met with the Grinnellites' favorite refrain, "different, yes, but different is not fake."

Frustration does not adequately describe the emotions of those who know, intuitively and intellectually, that the Grinnells are fakes. If only there were the equivalent of DNA evidence to prove that the Grinnells, as a whole, differed from the genuine Missionaries at the genetic level, not merely in the details of the printed images. Perhaps then the controversy would be resolved.

This article will identify a few tiny marks printed on every copy of certain Grinnells and show how those marks, like the "tiniest creatures" of H. G. Wells' novel, destroy the possibility that the Grinnells could be genuine, because they reveal something significant about the way they were printed. Indeed, the Grinnells are infected with something that genuine Missionary stamps are immune to by the nature of their creation.

Printing from Loose Type vs. Solid Plate

In cold-type composition, individual pieces of type and ornaments, along with non-printing spacers and leading (the pieces that create gaps between lines), are assembled and locked up in a printer's chase (or form). A roller is used to apply ink to the surface of the typeset form, then an impression is made by using pressure to transfer the ink from the raised surface to the paper. This printing process, known as typography or letterpress printing, is the same whether loose type is used or the impression is made from a solid piece of wood or metal, known as a plate. However, in the case of genuine Missionary stamps versus the Grinnells, the distinction between loose type and a solid plate is significant.

It is generally accepted that all 1851-52 Missionary stamps and the 1859-66 Numeral stamps were printed from loose type in Honolulu. The typeset forms were assembled, disassembled and sometimes reassembled, as needed. The presses used to print the stamps were used for many other purposes, and the same or similar type was assembled piece by piece for all of those print jobs (3).

Stamps printed from loose type frequently (but not always) show uneven *bite* (depression or cuts in the paper) where pieces of type, ornaments, rules or frames were not perfectly flush on the surface. Metal typograph plates can also leave bites in the paper, but the bite on stamps printed from loose type shows greater variation; for example, the thin frameline on a Numeral stamp will sometimes nearly cut through the paper, while the lettering and thick frameline in the same area will be almost level with the surface.

Stamps printed from loose type also frequently (but not always) show slight movements of the type elements. The minute changes in relative positions from one impression to another can be invisible to the naked eye, but under magnification and with overlays, such differences can be more easily detected (4).

In this article the writer will present evidence that the Grinnells were printed from solid plates, not loose type. This conclusion directly contradicts the RPSL report, which states emphatically that the Grinnells have the signature characteristics of printing from loose type. They declared, "There is no doubt in the Committee's mind that the Grinnells were printed from loose type rather than from some sort of electro or stereo." The RPSL based its opinion on a technique of measuring design elements and their relative positions, and of overlaying images of one Grinnell over another. With all due respect, their conclusion is based on a flawed methodology and is refuted by the evidence presented in this article.

Small But Mighty Marks

If one were to become miniaturized and look at the surface of a typeset form, the printing elements—letters and numerals, ornaments, rules and framelines—would appear as raised areas, while the non-printing spacers and leaders used to create white space (and stabilize the form) would appear as valleys. This printing surface is shown in **Figure 1**.

Figure 1. Close-up view of loose type assembled in a printer's form. Note the depressed areas, especially in the spaces between words.

Normally, the non-printing elements do not pick up ink or leave an impression on the paper. Sometimes dirt or greasy ink build-up can fill a void and leave a printed mark. Spacers and leaders can also rise to the surface during a press run, pick up ink and leave a characteristic mark between letters or lines. Marks left from embedded dirt appear as irregular spots or smudges and change shape over the printing run (or disappear altogether). Elements that have risen to the surface leave an impression in the shape of the metal piece. These types of transient or irregular-shaped flaws differ from flaws that are a permanent fixture in the printing surface.

The proof that the Grinnells had to be printed from solid plates is the presence of repeating marks in the white areas of all three Type II Grinnells (2, 5 and 13-cent values). These are shown in **Figures 2, 3 and 4.**

The purpose in showing two of the same denomination and type in Figures 2 to 4 is to emphasize the nature of each repetitive mark:

- Each mark is printed in the white area of the design, which corresponds to the depressed non-printing element on the actual typeset form;
- Each mark appears in precisely the same place on every printed impression;
- Each impression of the mark is exactly the same shape (allowing some variation for inking and impression).

After carefully studying every Grinnell image and every genuine Missionary stamp, the writer is confident that this type of repeating mark is found on the Grinnells to a degree that rules out imbedded foreign matter or a rising spacer as the cause. Therefore, these marks had to come from the raised and inked printing surface. They are not random ink smudges, nor are they possible on a form assembled from loose type.

The marks found on the Type II Grinnells were created when the surface of a solid metal plate was formed. Such flaws usually occur during the process of casting the stereotype mold or transferring the image to the plate by photochemical or electrostatic methods. These marks can also be created during the lithographic platemaking process, but lithographic printing has been ruled out in the Grinnells' case, according to the RPSL report (5).

If one could examine the plate used to make the Grinnells, the printed marks would appear as raised blemishes on the surface of the plate. If we could watch the printing process, we would see those raised points transfer ink to the paper, along with the printed design, in every impression (6).

Figure 2. Two 2c Type II Grinnell stamps, both showing the dot between the thick and thin framelines at left and the small line extending up from the thin frameline at bottom below the "wo" of "Two". **All 2c Type II Grinnell stamps have these marks.**

Photo Credit: Arrigo G50, G1

Figure 3. Two 5c Type II Grinnell stamps, both showing the dot between "o" and "s" of "Postage". **All 5c Type II Grinnell stamps have this mark.**
Photo Credit: Arrigo G63, G19

Figure 4. Two 13c Type II Grinnell stamps, both showing the dot to the right of "e" of "Postage" and another between stamps. **All 13c Type II Grinnell stamps have these marks.**
Photo Credit: Arrigo G30, G13

To support the claim that such marks occur only on stamps printed from solid plates, the author must show that such marks do not occur on any of the typeset genuine Missionary stamps. A thorough examination of every known Missionary stamp resulted in only one comparable example of a repetitive mark. At least three examples of the 2¢ Type II have two spots between the thin and thick framelines at bottom right. Enlarged images are shown in **Figure 5**.

Figure 5. Three examples of genuine 2¢ Type II stamps with embedded foreign matter between the thin and thick framelines at bottom right, causing spots in the white area. This type of printing flaw differs from the marks on the Grinnells.

Photo Credits:
Left: #12 Tapling Collection, British Library
Others: #9 and #15 Siegel Auction Galleries

In this case, it appears that dirt became wedged between the thin and thick framelines at bottom right. This type of transient flaw is not the same as the marks on the Grinnells for the reasons previously cited. Dirt, lint or greasy ink build-up can become lodged between elements or fill in the fine details of type and ornaments. Spacers can rise to the surface and leave a printed impression. However, those types of flaws tend to be transient, and the impressions are irregular, because the soft embedded material changes shape. The flaws on the Grinnells are sharply defined and unchanging. The dots isolated in white areas are especially telling, because they are in areas where there should be nothing at the surface to pick up dirt or ink.

The repetitive marks on the Grinnells amount to proof that the stamps were printed from solid plates, not from loose type. They cannot be dismissed, and their significance is based on the fundamental difference between printing from loose type and printing from a solid plate.

7-Bar Grid Cancellation

Much ado has been made about the genuine 13¢ Type II stamp (G80) from the Card of 10 that has a black 7-bar grid cancel. The significance of the Card of 10 is that two genuine Missionaries, both 13¢ (Types I and II), were part of the original Grinnell hoard and that the 7-bar grid cancel on the Type II appears to match some of the 7-bar grid strikes on the Grinnells. The presence of a purported Grinnell cancel on a genuine stamp has been interpreted as proof that the Grinnells are genuine. After observing that the cancel on this stamp matches some of 7-bar grid cancels on Grinnells, the first reports published in *The New York Times* and *Linn's Stamp News* heralded the discovery as possible proof that the Grinnells might be genuine, because the cancel was a common bond between the genuine Missionaries and the Grinnells (7).

However, what if the cancel on the 13¢ G80 is genuine, and the identical cancels on some of the Grinnells are fakes replicated from the strike on the G80 stamp in the Grinnell holding? In the writer's view and in the view of several specialists in Hawaiian cancels, this is exactly what happened.

Figure 6 illustrates a group of 7-bar grid strikes on genuine stamps (top row, including the 13¢ G80) and on Grinnells. The grid on the 13¢ G80 stamp has been overlayed in red on the others to show matches with all genuine examples and matches with some of the Grinnells. **Figure 7** illustrates the genuine grid, the G80 strike and the Grinnell fake grid with overlays. According to the RPSL report, there are three types of 7-bar grids on the Grinnells, including a version that precisely replicates the G80 strike, with the bars at the right extended to form a complete circle. The "Matches" in Figure 6 below the top row are Grinnells with the same type of grid. The others are different.

The shortened top bar on the G80 strike is an effect created by wear and uneven application of the cancel. Strike-influenced effects in a cancellation, such as thickening of the bars at one side or a shortened bar at top, occur when a cancel is applied with uneven force (for example, with more weight and tilt to one side) or if the underlying surface is not level (for example, the fold of a letter-sheet or envelope contents passes under the cancel). Looking at the many strikes of the 7-bar grid found on G80 and other genuine Missionaries, it is obvious that the well-defined features match precisely, and the poorly struck areas fall within the genuine device's boundaries.

Figure 6. G80 at top left is the genuine 13¢ Type II Missionary found on the Card of 10 in the Grinnell hoard. The grid is reproduced in red and overlayed on genuine Missionaries in the top row and on Grinnells below. "Match" indicates the G80 grid matches the underlying strike. The shortened top bar on G80 is replicated in the "Match" strikes on Grinnells, which indicates that the fake device was copied directly from the genuine strike in Grinnell's possession.

Photo Credits for Figures 6 and 7:
Top row: Arrigo G80, others from Siegel Auction Galleries
Second row: Arrigo G60, Culhane G80 and G36
Grayscale photos from black-and-white photos

It is a serious indictment against the Grinnells that some have a 7-bar grid that precisely matches the strike on the genuine Missionary *found in the Grinnell hoard*. The shortened bar at top is reproduced exactly as it appears on G80. In stamp expertizing, one looks for differences in printed impressions to identify possible fakes. However, when expertizing cancellations, one must also look for replication of *strike-influenced features*, a telltale sign that the forger has copied a genuine strike and incorporated strike-related variations which then become constants in the new fake device.

The genuine G80 stamp does not have a fake cancel, nor does it have the same cancel found on other Grinnells. It has a genuine cancel that was forged and used on some of the Grinnells. Where the cancel was not present at the right, the forger extrapolated the bars, but he did so inaccurately, forming blunt ends where there should be sharp edges that conform to the circular shape of the cut cork. The other cancels on the Grinnells are even more inaccurate renditions. That the forger was able to produce such an accurate copy of the G80 grid is evidence that he actually had possession of G80. However, he failed to realize that his copy incorporated strike-influenced features.

Conclusion

The Grinnellites have argued that all of the evidence presented to prove the Grinnells are forgeries can either be disproved or considered irrelevant to Grinnells because they come from a different printing and setting. The writer has presented evidence to prove the Grinnells were printed from solid plates, which leaves the Grinnellites two options: to provide evidence that repetitive marks of the kind on the Grinnells occur on genuine stamps printed from loose type, or to make a case that the Honolulu postmaster used a solid plate to print the Grinnells, employing not only a different setting, but an entirely different method of printing.

Finally, the G80 stamp revealed only recently, which was heralded as a major advancement in proving the Grinnells are genuine, has actually provided the missing link—not between the Grinnells and genuine Missionaries, but between the forger and his product.

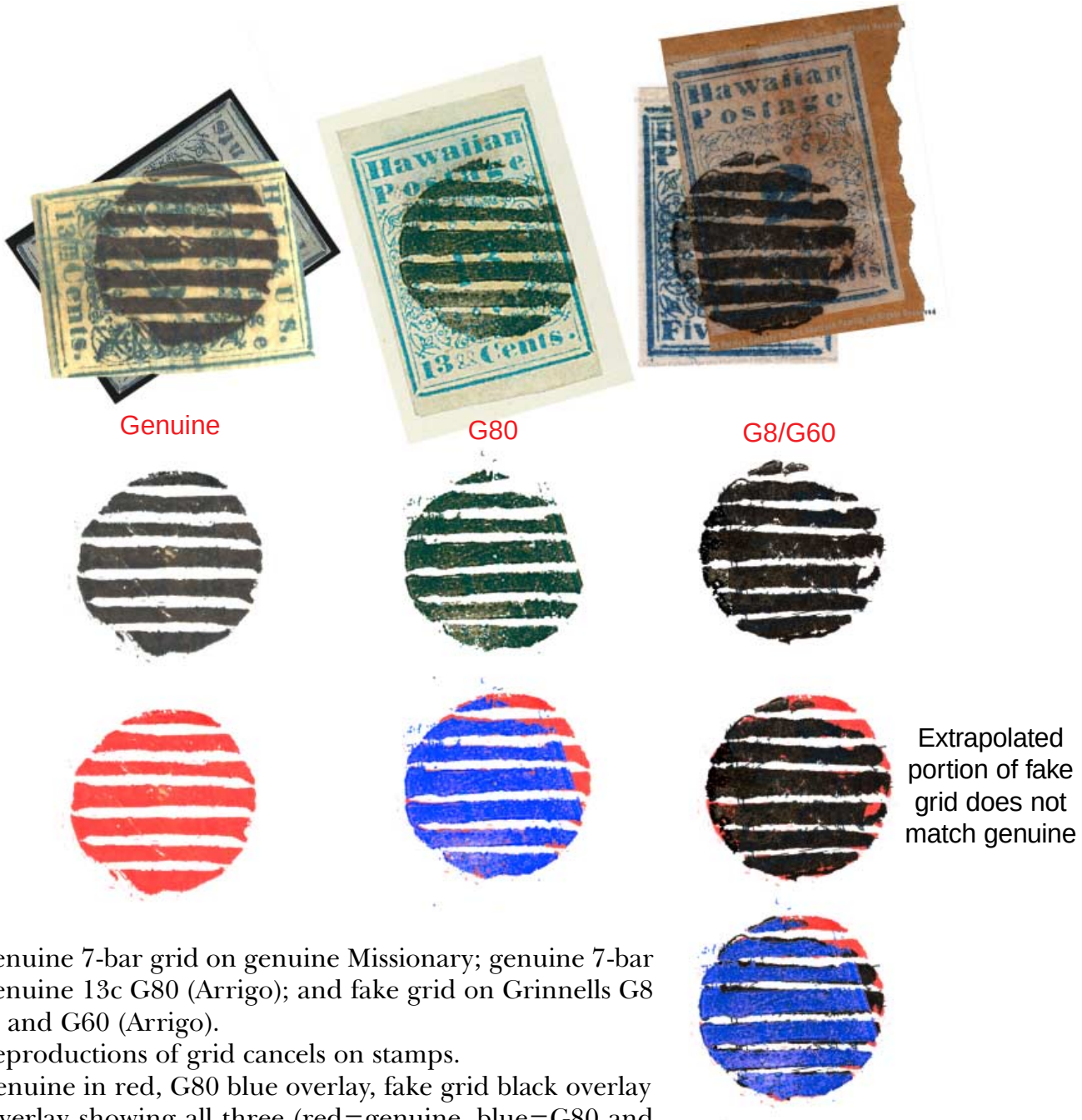

Figure 7.
Row 1: Genuine 7-bar grid on genuine Missionary; genuine 7-bar grid on genuine 13c G80 (Arrigo); and fake grid on Grinnells G8 (Culhane) and G60 (Arrigo).
Row 2: Reproductions of grid cancels on stamps.
Row 3: Genuine in red, G80 blue overlay, fake grid black overlay
Row 4: Overlay showing all three (red=genuine, blue=G80 and black=fake

Endnotes

(1) *The Investigation of the Grinnell Hawaiian Missionaries by The Expert Committee of the Royal Philatelic Society London,* Patrick Pearson (on behalf of the committee), RPSL Ltd., 2006

(2) The most extensive record of pro- and anti-Grinnell discussion will be found at *The Frajola Grinnell Board* at www.rfrajola.com

(3) Some of the investigative research currently underway is focused on the remote possibility that solid stereotype plates were cast from type and used to print some or all of the Missionaries and Numerals. No evidence to support this idea has been found, and there is no reason to think that the Honolulu postmaster would bother to produce new settings of a particular denomination (of which there are many redundant settings) if a stereotype had already been made. The stamps themselves have all of the character traits of typeset printing.

(4) The analysis of type movement based on measurements and overlays must take into account the variables that affect the printed design, especially with the Missionaries, which are printed on very thin paper and are often repaired with part of the paper or design added. Generally, an overall difference in width or height, which cannot be pinpointed to specific gaps between elements, is probably the result of paper shrinkage (or a distortion created by the scanning process when comparing digital images). Areas that have been repaired or repainted should not be considered reliable evidence of type movement.

(5) The writer has not inspected any Grinnells except through glass and from a distance that precludes the type of physical examination necessary to detect bites in the paper. Therefore, the writer must rely on other experts who have conducted their own close-up examinations and reported that the Grinnells show evidence of typographic printing (from a raised surface).

(6) Printed impressions from engraved plates have recessed lines below the surface that fill with ink, and the surface is wiped clean before the paper is put to plate. Tiny marks used by philatelic platers are actually from depressed points in the surface of the plate.

(7) *The New York Times* considered the story important enough to give it Section A coverage, while *Linn's Stamp News* was positively giddy with excitement in its front-page story.

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Images were obtained from various sources, as cited, and the Grinnell reference page at the Frajola Grinnell Board (www.rfrajola.com). The writer extends his gratitude to Richard C. Frajola for providing this valuable resource without compensation.