

## CASE REPORT

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### Identification of a Checkwriter Based on Ink Deposit Pattern

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**REFERENCE:** Jackson, K. S., "Identification of a Checkwriter Based on Ink Deposit Pattern," *Journal of Forensic Sciences*, JFSCA, Vol. 36, No. 1, Jan. 1991, pp. 257-260.

**ABSTRACT:** An F&E Hedman checkwriter was identified with questioned checkwriter impressions on the basis of unusually heavy ink patterns, which were the result of accumulated debris in the typeface of the checkwriter. This report details a 1989 case and presents photographs of portions of the checkwriter impressions and the checkwriter machine.

**KEYWORDS:** questioned documents, checkwriters, ink pattern

The cumulative experience of five document examiners with the Commonwealth of Virginia, Division of Forensic Science, revealed that the identification of a checkwriter with questioned checkwriter impressions is an uncommon occurrence. The primary reasons for this are the infrequent submission of checkwriters for examination and an insufficient number of identifying individual characteristics in checkwriter impressions.

#### The Case

The case at hand originated in a rural town in western Virginia. The suspect responded to an advertisement for a used pickup truck by visiting the home of the victim and, after a cursory inspection of the truck, stated that he would return the following afternoon with a "certified check" to make the purchase. Although the victim requested proof of identification, the suspect declined, providing false verbal information instead. The truck was subsequently purchased with the "certified check," bearing checkwriting impressions, and promptly sold to a car dealer in Richmond. A few weeks later, the suspect repeated his ruse in response to a used car advertisement. The victim, a woman employed with the local county circuit court, became suspicious when the suspect only glanced over the car before agreeing to buy it. When the suspect left with the promise to return with a check, the victim alerted the police. One investigator posed as the victim's niece in order to participate in the transaction, and another investigator waited nearby. When the suspect returned and relinquished a check bearing checkwriter impressions, he was arrested. A search of his trailer revealed a checkwriter, a stack of business cards with East Coast

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addresses, and numerous blank checks similar to the ones he had proffered. It was not known how he had acquired the checkwriter.

### Examination of the Checkwriter

A brown and beige, F&E Hedman, lever-operated checkwriter was submitted, along with two questioned checks bearing checkwriter impressions, one of them reading "The sum of \$7,800 and 00 cts" (Fig. 1) and the other reading "The sum of \$4,800 and 00 cts." The most obvious similarity between the two checks on initial observation was a heavy ink deposit in three distinct areas of the "The sum of" prefix impressions on both checks. Other areas of heavy inking were also scattered throughout the remaining check-written characters. Embossed above the checkwriter impressions on both checks was the word "INSURED."

According to available literature on checkwriters [1], the letter and numeral typeface designs of the questioned impressions were consistent with those produced by an F&E Hedman checkwriter. The payee perforator and the format of the "and" and "cts" printing elements dated the manufacture of this particular model prior to 1975.

The manually operated checkwriter was then employed to produce impressions of all of the numerals. A comparison of the questioned impressions with comparable specimen impressions disclosed that the heavy inking observed on particular numerals, letters, and symbols of the questioned material was present in the corresponding characters of the specimen material (Fig. 2). Not only were the ink deposits similar in location, but some of them formed distinct shapes, one of which resembled a backward comma, and were similarly replicated in the specimens.

The checkwriter was then disassembled to determine the cause of the heavy inking.

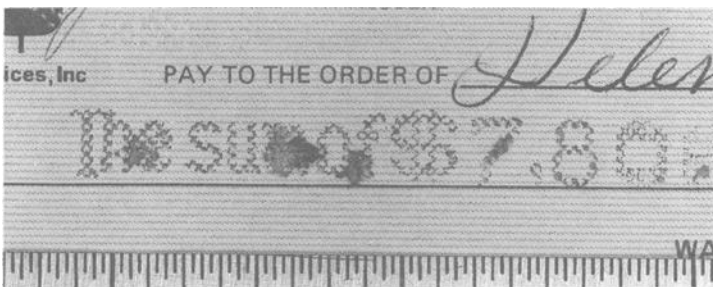


FIG. 1—Portion of one of the questioned checks, showing a characteristic ink blot pattern.

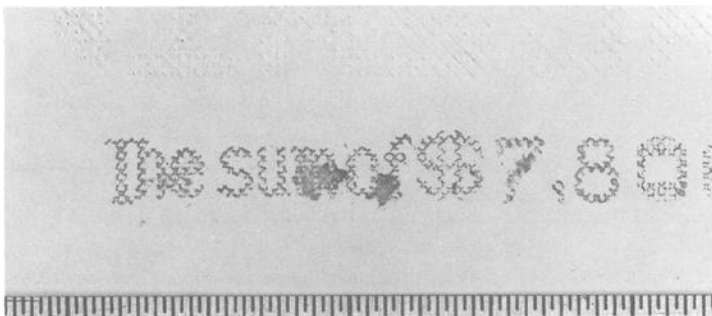


FIG. 2—Specimen impression made with the checkwriter in question, showing a similar pattern of ink blots.

The prefix "The sum of" was found on a metal slug which was easily removed from the side of the machine. The typeface of the slug contained a thick accumulation of ink, paper, and what appeared to be a hair-like material, in three distinct areas of the typeface, which matched the heavy ink deposits on the checkwriter impressions (Fig. 3). Once the checkwriter cover was removed, several of the typeface numerals were found to contain similar accumulated debris, again corresponding to the ink deposits on the questioned impressions.

Further exploration of the checkwriter itself revealed that the inking mechanism contributed to the clogging of the typeface. A constant supply of thick, oily ink is fed to a stamp pad, which inks a brush that runs the width of the machine. The brush then passes across the typeface and coats it with ink. This brush had apparently transferred its bristles to the typeface, and the hair-like bristles, in combination with paper, ink, and other debris, had accumulated in varying concentrations on and in the typeface of the checkwriter. These spongy accumulations produced the unevenly inked checkwriter impressions. The brush can be observed lying just below the prefix slug in a side view of the checkwriter in Fig. 4. Based on the combination of ink deposits, similar in both location



FIG. 3—Slug containing the typeface for "The sum of" prefix (photograph printed backward to facilitate viewing).

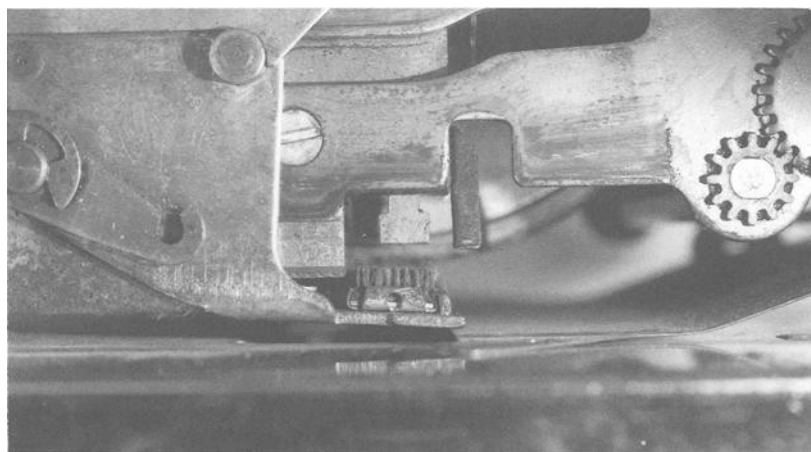


FIG. 4—Side view of the checkwriter, showing the brush that inks the typeface.

and formation, the author concluded that the submitted checkwriter had been used to produce the checkwriter impressions on the submitted questioned checks.

### **Conclusions**

The identification of the checkwriter used to produce questioned checkwriter impressions is an infrequent occurrence, according to document examiners within the Commonwealth of Virginia crime laboratory system. The predominant reasons for the paucity of such identifications are that few checkwriters are submitted for examination and those that are have an insufficient number of individual identifying characteristics. The checkwriter described was at least 14 years old and had accumulated substantial debris on and in its typeface. The resulting impressions were so heavily and uniquely smudged with ink that an identification of the checkwriter with the questioned checkwriter impressions was effected.

### **Reference**

- [1] Vastrick, T. W., "Checkwriter Identification," presented at the 37th annual meeting of the American Society of Questioned Document Examiners, Rochester, NY, Aug. 1979.

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