

THE MICROSCOPE AND THE CAMERA IN THE DETECTION OF FORGERY.—The subject of this paper is one of great practical importance in the administration of justice; and while not undertaking to treat the subject exhaustively, we shall endeavor to give some points which may be of value in subsequent cases.

The modes of committing forgery are various: (1) By alteration of the document in question, which may consist (a) of an erasure or erasures; (b) of additions to the instrument; (c) of both erasures and additions. (2) By the forgery of the entire writing, or of the signature. This may be accomplished in several methods:—(a) by tracing a fraudulent signature over a genuine signature by means of the pen or pencil; and (b) by copying or imitating the genuine signature otherwise than by tracing.

The methods of detecting frauds thus committed are various, according to the nature of the fraud:

First: Composite Photography has been proposed as a means of determining the authorship of disputed documents. While this method seems to be founded on correct scientific principles, yet in our opinion the cases in which it may be applied in practice will be very few, if any. In order to apply this method for the identification of a writing, whose authenticity is questioned, very much more material is required than is usually available in any case presented in court. As a rule, questions of authenticity arise principally with reference to disputed signatures; and under the rules of evidence applicable in England and in most of the States, it is very difficult, if not impossible, to procure other similar signatures, as a means of identification; and without a very considerable number of similar signatures, this method can not be adopted. Moreover, the difficulties of technique are such as to render it impracticable in the hands of an ordinary observer.

Second: Another means of identifying the authorship of a document is that proposed by Prof. T. C. Mendenhall, and published, I believe, in *Science* some years since. This method consists in what may be styled "Curves of Literary Style," the co-ordinates of which, if I remember correctly, consist of the number of words and the number of syllables which they respectively contain. This method, although very interesting and probably of considerable scientific value in cases to which it is applicable, is not, in the opinion of the writer, of any practical value in the ordinary administration of justice as cases are presented for adjudication in court; for the reason that it requires vastly more material than is ever accessible in ordinary practice.

Third: The ordinary method of identifying writing in use in courts of justice is that styled "Comparison of Hands." In this connection a brief review of the rules of law applicable to this case may not be inappropriate. By the English common law, a witness is competent to testify respecting the genuineness of a disputed writing—(1) If he has seen the party alleged to have made the writing in question, write; and it is sufficient for this purpose that the witness has seen him write but once, and then only his name. (2) The second mode of acquiring knowledge of the handwriting of another is by the receipt from such person of written communications purporting to be in his handwriting, either in the usual