

oil or water color. Dr. Jeserich has, however, pointed out an entirely new use for them, and has shown that they will differentiate between black inks of different composition.

The oft-quoted line, "Things are not always as they seem," is very true of what we call black ink. It is generally not black, although it assumes that appearance on paper. Taking, for experiment, the black inks made by three different manufacturers, and dropping a little of each into a test-tube half-full of water, the writer found that one was distinctly blue, another red, and the third brown. Each was an excellent writing-fluid, and looked as black as night when applied to paper. Now, Dr. Jeserich prepares his color-sensitive plates in such a way that they will reveal a difference in tone between inks of this description, while an ordinary plate is powerless to do anything of the kind. Among other examples, he shows the photograph of a certain bill of exchange, whereon the date of payment is written April. The drawer of this bill had declared that it was not payable until May; whereupon Dr. Jeserich photographed it a second time with a color sensitive plate. The new photograph gives a revelation of the true state of affairs. The word "Mai" had been altered to "April" by a little clever manipulation of the pen, and the fraud was not evident to the eye, to the microscope, or to the ordinary photographic process. But the color-sensitive film tells us that the ink with which the original word "Mai" was written was of a different black hue from that employed by the forger when he wrote over it, and partly formed out of it the word "April." The consequence is that one word is much fainter than the other, each stroke of alteration being plainly discernible,

and detecting the forgery. Another case is presented where a bill already paid, let us say, in favour of one Schmidt, is again presented with the signature Fabian. Here, again, the photographic evidence shows in the most conclusive manner that the first word is still readable under the altered conditions. In this case, when the accused was told that by scientific treatment the first name had been thus revealed, he confessed to the fraud and was duly punished.

Alterations in figures have naturally come under Jeserich's observation figures being, as a rule, far more easy to tamper with than words—especially where careless writers of checks leave blank spaces in front of numerals, to tempt the skill of those whose way are crooked. Dr. Jeserich shows a document which is drawn apparently for a sum of money represented by the figures 20,200. The amount was disputed by the payer, and hence the document was submitted to the photographic test. As a result, it was found that the original figures had been 1,200, and that the payee had altered the first figure to 0, and had placed a 2 in front of it. The result to him was four years' penal servitude and it is satisfactory to note that after sentence had been passed upon him he confessed that the photograph had revealed the truth.

Two cases in which fabrication of documents was rendered evident by the camera are of a somewhat amusing nature, although one might think it difficult to find matter for mirth of these mendacious doings. Two citizens of Berlin had been summoned for non-payment of taxes, and had quite forgotten the day upon which the summonses were returnable—thus rendering themselves liable to increased expenses. It was a comparative