

*IDENTIFICATION OFFICES IN INDIA
AND EGYPT*

THERE are many Identification Offices, supported by Governments and known by various titles, in different parts of the world. Their number increases, and so does that of the purposes to which they are applied; a knowledge of them is, however, confined to few persons. This is especially unfortunate, because a fair amount of popular interest would ensure their adequate support, and would check the common tendency in all Government institutions to slackness of management, which is particularly fatal to the efficiency of Identification Offices.

Those of which I am about to speak are the central establishments in India and in Egypt. The Indian system was described at the meeting of the British Association last September by Mr. E. R. Henry, late Chief of Police in Bengal, who reorganised it under its present form. The Egyptian system was explained by its originator, Colonel Harvey Pasha, Commandant of Police, in a book, or rather a pamphlet, published in Alexandria on the 31st of December 1897. I have had the advantage of frequent communication with both these gentlemen, and I have also had the pleasure of witnessing the highly successful working of the Egyptian system at the central office in Cairo, but I have not visited India.

The need for rapid means of identification is greatly felt in these two countries. The natives are too illiterate for the common use of signatures. Alphabetical registers are of little service, owing to the paucity of different names, and, in Egypt, owing to the various ways in which a man may fairly describe himself. Thus an Egyptian has his own special name, say Hassan; he may or may not use his father's name, say Mohamed; and he usually bears a distinctive nickname, say El Gazzar (the butcher). His full title is therefore Hassan Mohamed El Gazzar, but he may legitimately call himself at one time Hassan Mohamed, and at another time Hassan El Gazzar. The difficulty of identification is increased by the roaming habits of the natives, many of whom travel great distances for pilgrimages, petty commerce, or change of employment, so that witnesses may

not easily be found to identify them. Again, while the natives of India and of Egypt have beautiful traits of character and some virtues in an exceptional degree, their warmest admirers would not rank veracity among them. It is not insinuated that false testimony is unknown in English courts of justice, or in England generally; indeed I find, on a rough attempt at a vocabulary (made for quite another purpose), that more than fifty English words exist which express different shades and varieties of fraud;¹ but if a map of the world were tinted with gradations of colour to show the percentage of false testimony in courts of law, whether in different nations or communities, England would be tinted rather lightly and both Bengal and Egypt very darkly. So, whether it be from the impossibility of identifying the mass of natives by their signatures, or from the difficulty of distinguishing them by name, or from their roving habits, or from the extraordinary prevalence of personation and false testimony among them, the need for an Identification Office has been strongly felt both in India and in Egypt.

Simple Identification.—Beginning with the simplest requirement, of being assured that a particular person is really the man he professes to be, it has become recognised in India that the impression in ink (printer's ink is the best) of one or more fingers is an admirable criterion of identity, being cheap, easy, and most trustworthy. Impressions are used for the following purposes: (1) All pensioners, whether civil or military, are now required in India to make a print with their fingers, lest others should personate them after their decease, and continue to draw allowances that should have lapsed. Frauds of this kind have been apparently checked to a great extent in this simple way. (2) The courts of law have often to deal with cases in which a transfer, sometimes of property, sometimes of rights, is repudiated, which purports to have been duly made in the presence of witnesses. Both parties freely suborn false testimony, and most conflicting evidence is adduced. It is now required in all registration offices in Bengal that every man who registers a document shall make his thumb-print upon it. If the man afterwards repudiates the document, he is obliged to make a thumb-print in open court, for comparison; so the doubt is settled at once. Many cases of fraud have been detected in this manner during the last few years, and the deterrent effect of the new system has already become so marked that the total volume of work with which the

¹ It may be worth while to give these words. The list is imperfect, but will do. Cant, cheat, chicanery, circumventing, counterfeit, chouse, connivance, cozen, crafty, cunning, deceit, defraud, delude, dishonest, dissemble, dissimulate, dodge, duplicity, fallacious, feign, flattery, fraud, furtive, hoax, humbug, hypocrisy, insinuation, intrigue, jesuitical, jobbery, knavery, lying, mendacious, peculating, perfidious, perjury, personation, rascality, roguery, scheming, scoundrel, sharper, shuffler, slanderer, slimness (a new word due to the Boers), slyness, sneaking, spying, stratagem, subterfuge, traducing, treachery, trickery, wiles.

courts have to deal will probably become lessened to a sensible extent. (3) Large advances are made by the Opium Department to cultivators, the forthcoming crops being pledged in security. The department, of course, does not deal directly with the numerous cultivators, but with middlemen; thus there are at least two stages in which fraud may occur. Sometimes the middleman puts forward a false document which purports to be the receipt of the cultivator, sometimes the cultivator repudiates the receipt that he really gave. The finger-print of the cultivator on the document is now required to authenticate his receipt; this puts an end to all uncertainty, and both middlemen and cultivators appreciate the efficacy of the new system. (4) Employers when advancing money to labourers, or making contracts with them, or paying their salaries, are now beginning to protect themselves by requiring the finger-print of the labourer upon the agreement or receipt. (5) In the large establishment of the Survey of India, it was found very desirable to prevent the re-employment in distant districts of men who had been dismissed for misconduct. Consequently a photo-zincograph of the thumb-print of every such man is sent to all the working parties to prevent his being re-engaged under a false name. (6) A similar practice is employed by the Director-General of the post offices of India, and is made applicable to all gazetted officers, who now number many thousands. (7) In the Medical Department of India, both the local officer and the Medical Board register the thumb-impression of the person examined, before giving him his certificate. This provision might be extended with advantage, for there is good reason to believe that personation is not infrequent in local examinations in India (and sometimes nearer home), an ignorant candidate bribing a clever scamp to pass the examination in his name. (8) Certificates bearing the thumb-impression of the person certified are used in the administration of the rules for preventing the spread of plague, and for regulating the pilgrimage of Mussulmans to Mecca. All the foregoing are, according to Mr. Henry's statement, actually in use at the present time; there are other purposes to which finger-prints might be, and probably will be, applied with advantage. For instance, insurance offices might register the finger-prints of those whose lives they insure, and recognise the testimony of prints taken before witnesses from the hand of the sick man (or even from the corpse) as proof that he was the man in question. Also, finger-prints might properly be used in authenticating wills, the testator having first registered them. The Indian Legislature has passed a special Act amending the Law of Evidence, by declaring relevant the testimony of those who have become proficient in deciphering finger-prints.

It must be a great satisfaction to Sir William Herschel to follow the modern development of finger-printing in India, for it was he who first officially introduced it in the district of which he was the

Collector, some forty years ago. Though the practice fell into disuse after his retirement, his labour was by no means thrown away; prints had been preserved by him when I began my own inquiries, which had been made more than thirty years previously by persons who were still alive. Fresh prints were obtained from these persons through the active kindness of Sir William Herschel, who ungrudgingly helped me in a multitude of other ways, and thus I became possessed of material which enabled me to discuss and to establish the permanence not only of the general patterns on the bulbs of the fingers, but also of the lineations of which they are composed, in all their minute details, as described in my book *Finger-prints* (1892), and previously on many occasions.²

The difference between the prints made by any single finger of two different persons may be great or small. It is usually great enough to convince even the most inexperienced person that the two prints could not have been made by the same finger; but this is by no means always the case, and the scrutiny of an expert would then be needed to distinguish between them. An unpractised eye is confused by the number and minuteness of the lineations, it is apt to mistake non-essentials for essentials, dwelling on such trifles as blots or the blanks left by creases in the skin, or the contours of the particular impression. Moreover his eye wanders in vain search for sure points of reference. The best course to be adopted in a court of law, when the identity of the finger that made the two prints is strenuously disputed, has apparently yet to be discussed and determined. Judging from numerous plans of comparison that I adopted at various times for my own purposes, the simplest I can suggest is this. First take photographic enlargements of the impressions on a two- or three-fold scale, in order to overcome the difficulty due to minuteness and to supply authentic copies that may be marked at will, the precious originals remaining intact. Next prick the photographic prints with a *fine* needle, at the points that have to be compared, making notes about them on the back of the paper, used as a transparency. A further enlargement on paper, made in the camera from the negative already obtained, may be found convenient.

When the prints of all ten digits are available for comparison (as they are in the cases which we shall soon consider) identification is rapidly performed. There exists such an overwhelming plenitude of material in the ten fingers that it becomes absurd to scrutinise each of the thirty or more points of reference that are to be found in every one of them. It is far simpler to pick out not less than half a dozen conspicuous *groups* of peculiarities—I mean such as would certainly not be found in the same district (so to speak) of

² See *Nature*, the 28th of June 1888; also the *Nineteenth Century*, August 1891.

the finger once in fifty times. If they all agree, the probability of identity is of a far higher order than that which even the most cautious minds are content to accept as practical certainty; it exceeds a hundred thousand millions to one.

It seems to me a pity to print from the thumb alone, or from a single finger, the first three fingers of a hand being simultaneously pressed upon paper as easily as one, though of course they take more space. It is not only that defects of impression become of less importance, and that identification is generally easier, but also because the prints of three fingers may be classified and usefully indexed in the way about to be explained. Otherwise it is to be feared that when the prints of many persons are on a black list, it would be too tedious to search the list each time before engaging a fresh applicant.

Classification for Search.—Vast collections of measurements, finger-prints, and descriptive notes of those criminals who are in prison or who have worked out their sentences and are at large, are stored in the central offices of their respective countries; a man is suspected, is he or is he not one of the latter class? No huge collection can be effectively searched unless it is so well classified that the search may be limited to a very small portion of it, say to the contents of one or a very few pigeonholes out of a multitude of them. Linnæus classified flowers at a time when no better way was known of doing so, primarily according to the number of their stamens and secondarily according to that of their pistils, that a traveller who saw a flower unknown to him might refer it to a group of manageable size and hunt out its facsimile from among them with comparative ease. M. Alphonse Bertillon has the great credit of having done the like by his anthropometric system. Five appropriate dimensions were selected for measurement in each criminal, and he designated each dimension as *large*, *medium*, or *small*, as the case might be, and thus obtained 243 different classes—namely, three multiplied into itself five-times over. The tendency of the several dimensions in the same persons to be simultaneously large or small has since been met by causing the limits of the medium groups of the last four dimensions to be governed by the size of the first; the contents of the 243 pigeonholes then become pretty equally numerous, and the labour of an ordinary search is reduced 243 fold. But when any measurement lies dangerously near the limits of the medium class, two references have to be made; however, no serious trouble occurs in practice from this cause. As for finger-prints, they were first classified by myself, by, of course, a special method. All the ten digits being impressed, the general character of the pattern of each digit is indicated by one or other of the four symbols, \wedge \backslash $/$ \circ , the first representing an ‘arch,’ the

second and third representing 'loops' according to their slope, and the fourth a 'whorl.'

During the earlier part of my inquiries I employed a notation of letters, but suggested these symbols in preference, in my last book.³

The committee appointed by the Home Office to inquire into the two means of identification, that of measurements and that of finger-prints, and to report on their applicability to the detection of old offenders in England, strongly urged their use in combination, in which view I fully concurred. Severally, they are subject to so much correlation that little is gained by using the measurements of many dimensions or the prints of many fingers, instead of a few of each. On the other hand, the patterns of finger-prints and the dimensions of the same person are apparently quite independent; consequently their power in combination is enormous. But it is not always possible to use measurements with advantage; notably in the case of minors, whose dimensions change rapidly. In India it has at length been found wisest to discard measurements altogether, for they proved to be untrustworthy owing to the difficulty of effectual supervision over the widely scattered places at which they had to be made. The strictest supervision of the measurers is needed for the effective carrying out of the anthropometric system, a false measure being worse than useless; it misleads, and shelters a criminal instead of helping to detect him. The Indian committee reported in 1897

that the method of identification by means of finger-prints, as worked in the system of recording impressions and of classification devised by Mr. Henry, may be safely adopted as being superior to the anthropometric method (1) in simplicity of working; (2) in the cost of apparatus; (3) in the fact that all skilled work is transferred to a central or classification office; (4) in the rapidity with which the process can be worked; and (5) in the certainty of the results.

The consequence was that the Governor-General in Council, by a resolution of the 12th of June 1897, directed that the system of identification of criminals by finger-impressions was to be adopted generally in British India. The magnitude of the change is great, between 150,000 and 200,000 anthropometric cards having already been collected and classified. The Home Office committee in England, referred to above, evidently rated the differentiating power of the finger-print method too low; they thought it would safely deal with collections of cases not exceeding 1,000 in number. I think they were justified in their views by the evidence I was then able to give them; but after their Report⁴ was made, I still continued working at the subject, and tests were made several times daily by myself or by my assistant upon my collection of 2,632 cards. I subclassified the commoner patterns by noting the number

³ *Finger-print Directories*, 1895, p. 112.

⁴ C. 7263, February 1894.

of lineations between the 'core' and the 'V,' or point of divergence of the ridges, in at least one finger; then no difficulty was found in hunting out the earlier impressions after seeing those made by the same person at a subsequent time. My *Finger-print Directories* gives a full account of these experiments and of my final suggestions. Mr. Henry reckons lineations on more than one finger, with the simplification of merely noting whether their number exceeds or falls short of the average, and is thus able, as he states, to cope successfully with his far larger collection than mine. His success in this respect seems to me so surprising that I should greatly like to witness his methods tested on a really large collection, say of 100,000, in which there would probably be found no less than 6,000 cases of *all-loops* of the ulnar kind, to be distinguished mainly by the method of lineations. It would be too technical if I were now to attempt to describe Mr. Henry's many ingenious methods; suffice it to say he considers his system to be quite efficient. Moreover he estimates that about one in five of all the cases of previous convictions proved in Bengal would have remained undiscovered without the aid of the Identification Office.

I will now speak of the office in Cairo, which seemed to me a model of method and efficacy. It is particularly interesting from its having been created and organised by the Commandant of Police, Colonel Harvey Pasha, within his own department, without any higher official recognition. The Police Department is applied to for information on the antecedents of accused persons, about whom no trustworthy information can otherwise be obtained. The old system of search was even less methodical than that employed until lately in England (which is saying a great deal), so in 1897 he introduced on his own account the combined system of measurements and finger-prints, neither of them being pushed to an extreme.

The number of schedules in Egypt is as yet small: in 1899 they amounted to 20,836—namely, 18,582 records of male adults, 661 of women, and 1,593 of minors. Each schedule is of the size of an open sheet of ordinary notepaper, made of thin but very strong material, and is folded in three. It bears the measurements, finger-prints, and a brief account of the principal bodily marks of the criminal to whom it refers, together with his name (as given) and his convictions. The schedules are sorted into 243 drawers on the Bertillon system, and the contents of each drawer are subclassified on the finger-print system. The classification and search department is worked by four very intelligent and alert officials. I made a few test trials, each time picking out a duplicate schedule from a large heap, handing it to the official in charge, and noting the number of seconds that elapsed before he discovered the original. The quickest search occupied only eleven seconds; all were rapidly made,

none required a minute. One case was that of a minor, classified by finger-prints alone; that search occupied twenty-five seconds.

The Identification Office at Cairo has already produced excellent effects. False names have ceased to be a protection. Habitual criminals can no longer avail themselves of the lenient sentences passed on first offenders. Innocent men have been saved from being mistaken for guilty ones. Released criminals, still legally under police supervision but who have escaped from it, are certain to be recognised whenever they become suspected and the Office is consulted. Lastly, the administration of prisons in Egypt being still subject to Government irregularities, it has happened that a prisoner sentenced to a long term has actually been set free instead of another man who bore the same name and was sentenced to a short term, and the latter has regained his rights solely owing to the intervention of the Identification Office. Thus two men were in the Hod el Marsood prison, both bearing the same name, Hassan Mohamed, but otherwise unrelated. The one had been sentenced to a year's imprisonment for theft, the other to one month for some minor offence. At the expiration of the month (the 28th of November 1898) the wrong Hassan Mohamed was liberated and the one who should have been let out was kept in. Many examples of the kind could be cited. Among these is a case in which a certain prisoner, Boghos Sanossian, who had a short sentence, consented, presumably for a consideration, to be substituted for another prisoner, Karnick Mardinian, who had a long one. The substitution was not discovered until Boghos was re-measured and finger-printed just before his liberation, when it was remarked that his measures and finger-prints were not the same as those already recorded of him; the Identification Office was applied to, where a search quickly showed them to be those of Karnick. So Karnick was sought and caught and the substitution proved.

Another use to which the Office is put is to find whether candidates for responsible employments have ever been convicted of serious crime. A small but coveted kind of post is that of the night watchmen, who are engaged by the week. Every Monday some two hundred applicants present themselves, out of whom twenty have to be selected. The most promising are picked out provisionally; they are then measured and finger-printed. Search is made, and if no record is found against them, they are appointed. But as opportunities for substitution occur between the provisional and the final selection, during the interval when the provisionally selected candidate is passing from room to room through crowded passages, each has the office stamp impressed at once in red ink on the palm of his hand. Without that mark no candidate may be measured or receive his certificate. A different method is used in the recruiting service, where the would-be recruit has sometimes to travel far to

the place of measurement ; therefore it is necessary to provide a more durable mark than the red stamp on the palm. So each of these men is treated like a package, about to be sent duty-free through alien territory ; that is, he is *plombé*. A string is passed round his neck, its ends are threaded through holes in a small lump of lead, then a pair of powerful nutcrackers with the office seal inside their jaws, impresses the lead and squeezes it so tightly on the strings that the authenticated necklace is irremovable except by cutting it.

The practice of sending provisionally selected candidates to the Identification Office, for assurance that they had never been convicted of crime, came first into use when servants were being engaged for the army of occupation. There had been much thieving, and it became necessary to weed out the bad characters. Subsequently a desire arose among honest persons to obtain cards of identity. These contain the man's name (as he gives it), a register number, a few measurements, a brief personal description, and his photograph. He can thus prove to the satisfaction of a new employer that he is the veritable Hassan Mohamed, Register No. so-and-so, to whose merits his former employers have testified. The card, photograph and all, costs the man about two shillings.

Space does not permit me to go more fully into this large and interesting subject. It will be a real gain if these remarks should succeed in impressing the public with the present and future importance of Identification Offices, especially in those parts of the British Empire where for any reason the means of identification are often called for and are not unfrequently absent. I think that such an institution might soon prove particularly useful at the Cape.

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