

than in others. And possibly, in the case of the fœtus and its mother, the amount of the assimilation is not considerable.

No interchange of corpuscles takes place, but in respect of the other constituents of the blood, it is difficult to conceive why they should not be transmitted nearly unchanged. Professor Simpson of Edinburgh has recently shown that the small-pox virus may pass unaltered from the mother to the child in her womb, and produce in it the actual disease, even although, by reason of previous vaccination, the mother may herself remain unaffected by it. And a similar fact has long been known in regard to the transmission of the syphilitic virus from the mother to the fœtus in utero.

We can, therefore, have no difficulty in understanding, in respect of the fœtus itself, that, although its connexion with the mother is indirect only and merely to the extent of allowing the passage of the liquor sanguinis, and although this may even be so far altered in the passage, the constitutional peculiarities, derived to it from its father, and inherent in its blood, may, with the blood, be imbibed by its mother. And when we reflect on the length of time during which the connexion between them is kept up, the amount and the activity of interstitial change continually going on in the system of the fœtus, the large quantity of fœtal blood that must eventually be taken into the vessels of the mother, and the probability that the peculiar matter imparted by the male parent to the ovum at the moment of impregnation (be its nature what it may, and its quantity never so infinitesimal), assimilates, like a ferment, much of the fœtal blood to itself, it does not seem too hard to be believed that the blood and constitution generally of the mother may thereby become so imbued with the peculiarities of that parent, as to impart them to any offspring she may subsequently have by other males.

Aberdeen, April 30, 1849.

APPENDIX.—I. In the foregoing paper a question occurs as to whether, in the case of a woman who has been twice married, and borne children by both husbands, the children of the second marriage ever resemble the mother's first husband?

The following additional cases, illustrative of this question, have recently been communicated to me: the first by my friend the Rev. Charles M'Combie, of Tillyfour, minister of Lumphanan, in Aberdeenshire; the second by Professor Simpson of Edinburgh; and the third by Professor Pirrie of Aberdeen:—

1. Mrs. —, a neighbor of Mr. M'Combie, was twice married, and had issue by both husbands. The children of the first marriage were five in number; of the second three. One of these three, a daughter, bears an unmistakeable resemblance to her mother's first husband. What makes the likeness the more discernible is, that there was the most marked difference, in their features and general appearance, between the two husbands.

2. A young woman, residing in Edinburgh, and born of white (Scottish) parents, but whose mother some time previous to her marriage had a natural (mulatto) child, by a negro man-servant, in Edinburgh, exhibits distinct traces of the negro. Dr. Simpson, whose patient the young woman at one time was, has had no recent opportunities of satisfying himself as to the precise extent to which the negro character prevails in her features; but he recollects being struck with the resemblance, and noticed particularly that the hair had the qualities characteristic of the negro.

3. Mrs. H—, apparently perfectly free from scrofula, married a man who died of phthisis. She had one child by him, which also died of phthisis. She next married a person who was to all appearance equally healthy as herself, and had two children by him, one of which died of phthisis, the other of tubercular mesenteric disease—having at the same time scrofulous ulceration of the under extremity.

II. In connexion with the constitutional influence exerted by the male, through the medium of the fœtus in utero, on the system of the female, another and a very singular question may be raised. In the case of an aboriginal woman of color, does previous impregnation by an European male render the female incapable ever after of fruitful intercourse with a male of her own race?

This question is suggested by an observation, made in various parts of the world, by the excellent Count de Strzelecki, relative to the effect of fruitful intercourse between an aboriginal female and an European male. "Whenever such intercourse takes place," says the Count, "the native female is found to lose the power of conception, on a renewal of intercourse with the male of her own race, retaining only that of procreating with the white men."

This, if a general fact, contrasts remarkably with Dr. Simpson's case, above mentioned (one of fruitful connexion between a white man and a white woman, after previous impregnation of the latter by a black man), unless, indeed, this be, which probably it is not, an exception to an equally general fact of the same sort. It would limit, also—nay, absolutely exclude, opportunities of observing whether children born of dark parents, where the mother formerly had issue by a European male, exhibit traces of the latter. But it was before stated on the authority of two gentlemen long resident in Jamaica, that in our West India colonies—in Jamaica at least—fruitful connexions of this kind are of common occurrence, and (which I mention at present as in keeping with this) on the authority of Dr. Dyce, that, in children born under such circumstances, marks of the European have been observed. Special inquiry, made recently, has served so far to confirm these statements, but not to satisfy me that the issue of such connexions is numerous.

The opportunities, however, enjoyed by the count Strzelecki, of making observations as to this point, in most parts of the new world, have been very great. "He has lived much (to use his own words) amongst different races of aborigines—the natives of Canada, of the United States, of California, Mexico, the South American republics, the Marquesas, Sandwich, and Society Islands, and those of New Zealand and Australia. And, referring to the statement made by him, and already quoted, the count observes—"Hundreds of instances of this extraordinary fact are on record in the writer's memoranda, all recurring invariably under the same circumstances, amongst the Hurons, Seminoles, Red Indians, Yakies, (Sinaloa,) Mendosa Indians, Araucos, South Sea Islanders, and natives of New Zealand, New South Wales, and Van Diemen's Land; and all tending to prove that the sterility of the female, which is relative only to one and not to another male, is not accidental, but follows laws as cogent, though as mysterious, as the rest of those connected with generation."

Strzelecki does not state to what extent, or indeed, whether, he has met with exceptional cases—i.e., cases where, after connection of the kind in question, fruitful intercourse has taken place between a native man and woman. This it would be important to know. It seems not improbable, at least, that such cases may have been observed by him. They would not indeed, even were they numerous, invalidate the inference obviously drawn by him from his other observations, provided they were really exceptional. They would merely show that the fact does not hold universally or absolutely. But should the inference be in the meantime disputed, as I think it well may, it can only be determined in the affirmative, by proofs of the same general kind with those by which (for example) the contagious property of certain diseases is established—to wit, by comparative observations on the large scale, showing,—First, that native females who have once had fruitful connexion with European males, are, subsequently, as compared with other na-