It is well known that at seven months the human foetus is entirely covered with hair. These hairs traverse the skin obliquely, and continue to increase slowly until they attain from a quarter to half an inch in length, when they are replaced by the small persistent hairs. The infant comes into the world covered with embryonal hair. The dog-men are covered with a woolly or silky hair, presenting embryonal characters. Both Ecker and his reviewer, Dr. Vars, agree that general hypertrichosis is simply an arrest of development; that is to say, the down, instead of being replaced by hair, persists and continues to develop.

I had not heard of the transfer of the Birman family to England until I read the newspaper report recently. There is no reason to discredit the account, proper allowance being made for enthusiastic hyperbole. O. T. MASON.

CONTAGIOUS DISEASES.

IN a paper recently read before the Philadelphia county medical society, Dr. Arthur V. Meigs takes the ground that scarlet-fever is very much less contagious than is commonly supposed; much less, in fact, than measles and whooping-cough; and in proof of his opinion, he cites the fact, that, while it is the rule for measles and whooping-cough to affect all the children in a household, scarlet-fever usually limits its attack to one or two, even though there may be others who have never had the disease, and are therefore presumably susceptible. There is one point which the author of the paper does not, it seems to us, lay sufficient stress upon; and that is, that, while parents dread scarlet-fever, they have but little fear of measles or whooping-cough, and, being influenced by that popular impression that all children must at some time of their lives have these latter diseases, they take no pains to isolate the sick from the well, as they do if the disease be scarlet-fever. The writer could give repeated instances where the most rigid isolation was practised in cases of measles, in which but one member of a family was attacked, though there were a number of others who were presumably susceptible. Until, therefore, the same scrupulous care is taken to separate the affected child from the unaffected in measles as is done in scarlet-fever, we shall hesitate to accept the conclusion that scarlet-fever is much less contagious than measles. This will probably never be done until parents are taught that measles is not a trivial disease, but is, in fact, many times a most serious one. In England the number of deaths in five years from measles was 42,139; in Brooklyn in ten years 1,012 children died from this cause; and in New York during the week ending Dec. 4, 42 deaths from it are recorded. This takes no account of the countless number that are left with impaired constitutions and lung diseases, and who, within a very short time after this attack of measles, appear in the mortality statistics as victims to bronchitis or pneumonia. And the same may be said of whooping-cough, — a disease which, in the period 1875–79, caused in England alone 66,730 deaths.

SYNECHDOCHICAL MAGIC.

ALL students of anthropology are familiar with the belief among lower peoples that what is done to a part of a person or to his property is done to him. These people all dread to have the smallest part of their bodies or their intimate possessions go from them. It has always seemed to me to need further explanation, a more simple and commonplace solution.

This is given in Mr. A. W. Howitt's paper in the August number of the *Journal of the Anthropological institute.* I quote his language: —

"Connected with the throwing of magical substances in an invisible form is the belief that they can be caused to enter the body of a victim by burying them in his footsteps, or even in the mark made in the ground by his reclining body. Sharp fragments of quartz, glass, bone, charcoal, are thus used, and rheumatic affections are frequently attributed to them.

"Another form of this belief is seen in the practice of putting the jagged cone of the Casuarina quadrivalvis into a man's fire, so that the smoke may blow into his eyes and cause him to become blind. The idea seems to be that the *eidolon* of the cone will produce acute ophthalmia.

"A piece of hair, some of his faeces, a bone picked by him and dropped, a shred of his opossum rug, will suffice. Even his saliva may be picked up and used for his destruction."

The explanation of all this, which I have long sought, is given in the very words of one of Mr. Howitt's informers, who said, "You see, when a blackfellow doctor gets hold of something belonging to a man and roasts it with things, and sings over it, *the fire catches hold of the smell of the man* [italics mine], and that settles the poor fellow." In other words, the smallest part of a man, or of any thing he has touched, will suffice to give the demon his scent.

Of course, customs survive millenniums after the cause of their origin is forgotten, and it is scarcely probable that those who carefully burn their waste hair and nails do so to avoid giving

the witches their scent or the means of indentifying them. The savage who refuses to allow his picture to be taken, and the felon who objects to having his 'mug' adorn the walls of Rogues's gallery, are not so far apart, if we can bring our minds to identify the devil of the former with the detective of the latter. O. T. MASON.

PROFESSOR NEWBERRY ON EARTHQUAKES.

PROFESSOR NEWBERRY'S paper on earthquakes is, in the words of the author, "a brief review of what is known and believed in regard to the phenomena and causes of earthquakes by those whose opinions on this subject are most worthy of confidence." After defining the word 'earthquake,' he proceeds to give a summary of the facts upon which he bases his definition, carefully elaborating and illustrating the subject from the point of view of a cooling and contracting sphere, with a relatively thin crust, and fluid or viscous interior. The latter part of the essay is treated under the headings, 'Earthquakes and volcanoes as measures of the thickness of the earth's crust,' and 'Flexibility of the earth's crust.' Finally, 'Proximate causes of earthquakes' are briefly considered, and a short bibliography is appended.

The definition, which is taken as the text, and which is really an epitome of the whole argument, is as follows: "An earthquake is a movement caused by a shrinking from the loss of heat of the heated interior of the earth, and the crushing-together and displacement of the rigid exterior as it accommodates itself to the contracting nucleus." It is then stated that the facts upon which this statement is based are so numerous and significant that the conclusion 'is not only convincing, but inevitable.' Although this broad generalization is perhaps applicable in the case of most earthquakes, and the theory as to the structure of the earth which it involves is very generally accepted by geologists, yet, in view of the fact that many eminent scientific men are not prepared to subscribe to it at all, in either case it is to be regretted that the author has not adopted the comprehensive and more non-committal definition given by Mallet, and substantially repeated as follows by Powell (in *The forum* for December): "An earthquake is the passage of waves of elastic compression in the crust of the earth." The very fact that different theories are to be found, even in the very latest utterances of eminent authorities, would seem to make it desirable to acknowledge that the subject is not one that can be disposed of in such an *ex cathedra* statement, but rather one worthy of the most painstaking study, which, indeed, it is now receiving from the most advanced nations. The further statement that "earthquakes are neither novel nor mysterious, but are among the most common and simplest of terrestrial phenomena," is not likely to receive very wide acceptance in its entirety, and issue will certainly be taken with Professor Newberry as to there being any very great degree of unanimity in this opinion among "those whose opinions are most worthy of confidence." Similarly it must be said that far more confidence is placed by the author in the various methods of calculating the depth of origin by means of accurate observations as to time and angle of emergence than seems warranted. The problem is so complicated by the great heterogeneity of the superficial formation of the earth's crust, that the best observations we can make, give, at best, only roughly approximate results. Again, it is stated that the reported shortening of railroad-tracks in certain places near Charleston, "if verified and measured, would give a clew to the location and extent of the subterranean movements which produced the vibrations." Most authorities, however, will probably regard it, in the case of a shock disturbing so great an area, as an entirely secondary effect, along with the production of local sinks, geysers, and land-slides.

This well arranged and condensed *résumé* of the subject, from the stand-point of a geologist of Professor Newberry's reputation, cannot fail to be read with interest by the general reader as well as by the special student. The only criticism that can he made, other than favorable, seems to be that to the average reader it may leave the impression that the causes of all earthquakes, and even the nature of the earth's interior, are now so well understood as to leave very little room for difference of opinion among those best qualified to judge. EVERETT HAYDEN.

Earthquakes. By Prof. J. S. NEWBERRY. New York, *The author*, 1886. 8°.

PHANTASMS OF THE LIVING.

THIS is a most extraordinary work, — fourteen hundred large and closely printed pages by men of the rarest intellectual qualifications, for the purpose of setting on its legs again a belief which the common consent of the 'enlightened' has long ago relegated to the rubbish-heap of old wives' tales. In any reputable department of science the qualities displayed in these volumes would be reckoned superlatively good. Untiring zeal in collecting facts, and patience in seeking to

Phantasms of the living. By EDMUND GURNEY, FREDERIC W. H. MYERS, and FRANK PODMORE. 2 vols. London, *Trübner*, 1886. 8°.