

In examining the ancestry of deaf-mutes, I have had occasion to consult the original population schedules of former censuses, which are preserved in the Department of the Interior; and I have found little difficulty in tracing the families backward from census to census in the male line of ascent. If the name of the father had been given in former censuses, it might now be possible for genealogical experts to trace from these records the American ancestry of every person now living in the United States in every branch, for the name of the father would give the maiden name of females. I therefore suggest that in the census of 1890 the father's name should be noted in that part of the schedule that relates to the nativity of the parents, so that the people of the United States may leave to their descendants genealogical records from which their full ancestry may at any future time be ascertained.

MENTAL SCIENCE.

Negative Suggestions.

THE meaning of this term as applied to certain hypnotic phenomena has become quite familiar. It refers to the ignoring by the subject of a portion of his sensory experience. If told that upon awakening a certain person will be absent from the room, such a person may stand directly before him, and he will be entirely ignorant of his presence. Dr. Bernheim, in studying the details of this phenomenon (*Revue de l'hypnotisme*, December, 1888), regards the condition as of purely psychic character. The defect is not physiological. The eye sees, for the subject will not run against the "invisible" person, but the brain ignores the impressions made upon it. It refuses them a hearing. This point, that in this condition the perceptions are really present but are not allowed admittance into consciousness, Dr. Bernheim proposes to demonstrate. He tells an apt subject in the hypnotic state that on her awakening he will be gone. She is awakened, searches about, but gives no sign of recognizing Dr. Bernheim. The latter speaks to her, shouts into her ear, sticks a pin into her skin, even touches her eye with it, but all with no response. She is oblivious to all impressions coming from him. If some one else touches her with a pin, she withdraws her hand at once. To do this, she must distinguish Dr. Bernheim from the other spectators; and this involves sight.

It should be noted that this experiment will not always have the same result. If told that they will not see Dr. Bernheim, some subjects will not see him, but will hear him and feel his touch, — a condition causing them a good deal of surprise, and often leading them to infer that another person must be speaking to them, and so on. By suggesting in detail that the doctor will neither be seen, heard, nor felt, a complete anæsthesia can be established.

Returning to the former subject, Dr. Bernheim, while invisible, spoke abusive words to her; but her face betrayed no emotion. Thereupon she was hypnotized by an assistant, and given the suggestion that upon her re-awakening the doctor would again be present. Dr. Bernheim then asked what he had said to her. She denied his having been present; but he insisted, impressing upon her that she would remember all. She declares it must have been a dream, but at last with great hesitation repeats Dr. Bernheim's words, his sticking her with a pin, and so on. The latent impression can thus be revived, showing that it was physiologically recorded. It is not remembered, but by a new suggestion or great effort can be revived.

A similar experience often happens in the normal state. We are absorbed in work while conversation goes on about us. We hear nothing at the time, and we have no idea of what has been said. Later, a chance association, or what not, shows that we had really been taking in what was said, though absorbed by our own work. The proof of this power of revivification is important as an aid to the explanation of hypnotic states, and is equally valuable in the medico-legal complications that might arise from them.

FATIGUE OF SIGHT. — Experiments have recently been made showing in what order a fatigued eye recovers the power of perceiving different colors. The important factor is what color has been used to induce fatigue. If the eye has been fatigued by long exposure to red, the sensitiveness for green is the first to re-appear, then for blue, then yellow, and finally red. After a "blue-fatigue,"

the order is yellow, red, green, blue; after a "green-fatigue," the order of recovery is red, blue, yellow, green; after "yellow-fatigue," it is red, blue, green, yellow. The eye recovers last the perception of the color by which the fatigue has been induced, and first recovers the sensitiveness for the complementary color. The fatigue is in the retina, for it is an independent phenomenon in the two eyes. The point of finest vision, the fovea, requires a longer time to recover from color-fatigue than the less sensitive lateral portions of the retina. The physiological process is considered to be related to the visual purple of the rods and cones.

SENSE OF TASTE. — In the case of a patient whose entire tongue, including the large circumvallate taste-papillæ at the root of the tongue, had been removed, it was found that some power of taste remained. The sensations of sweet, bitter, and sour could be obtained by applying appropriate substances to the back of the pharynx or the stump of the tongue, though if applied to the tongue the taste was apparent only during swallowing. The taste of salt was not perceived. Though these results are not fully in harmony with previous experiments, they are helpful in localizing the tasting-powers of various portions of the mouth cavity.

ACROPHOBIA. — Among the many curious psychical experiences that are now attracting attention, the one to which the term "acrophobia" has been applied has many points of interest. It refers to an exaggerated condition of the fear when in high places. Dr. Verga has recently described the phenomena in his own case. Though by nature not at all timid, all his courage leaves him when above ground. He has palpitations in mounting a step-ladder; finds it extremely unpleasant to ride on top of a coach, or even to look out of a first-story window. His idiosyncrasy forbids him to use an elevator, and the mere thought of those who have cast themselves down from high places causes tingling all over his person. The thought of the earth spinning through space is enough to cause discomfort. He finds this fear growing upon him as sight and hearing become less acute, and what walking in high places was formerly possible for him is getting more and more difficult. A greater or less degree of this fear is undoubtedly quite common. A very intense form of it seems perfectly consistent with normal mental functions.

COLOR-BLINDNESS. — Examinations in English schools tend to bear out the opinion that color-blindness is often declared to be present, when really no organic defect, but only a poor training in the naming and distinction of colors, is apparent. Some pupils, who at first seemed unable to tell colors, could be taught to do so in a few hours. One boy always called black white, and white black, and regarded colors in general as of little importance. Of one hundred boys examined, not one could be declared color-blind; of two hundred boys who were set to arranging and matching shades, none found any difficulty after a few hours' practice; and all could distinguish ordinary colors.

NOTES AND NEWS.

PROFESSOR SHALER of Harvard has just published in the "Memoirs of the Museum of Comparative Zoölogy," by permission of the director of the Geological Survey, a report on the Cambrian district of Bristol County, Mass., including a discussion of twenty-three species of fossils in the lower Cambrian section, from localities previously unknown to science. The total section of Cambrian beds exposed has a thickness of about seven thousand feet, and below that section there is a pre-Cambrian series of unknown depth, but probably approaching ten thousand feet. The report includes a geological map of the district, and two plates of fossils.

— **Frederick Schwatka**, the noted Arctic traveller, who made the longest sledge-journey on record in search of Sir John Franklin's remains, is about to head an expedition through the hitherto unknown northern mountains of Mexico.

— **Surgeon-Gen. Hamilton** has gone to Chicago on official business, and will be absent from Washington for a month. He reports progress in his efforts to reduce Florida cities to a safe sanitary condition.