

SPEED OF THE SENSES.—There are thirty-one parts of compound nerves in the human body, the sensory and motor fibres of which are so commingled as to render it an impossible undertaking to separate them by any means at present known. Now if, for instance, a needle be stuck into one of the fingers, the sensory fibres take the impression through the nerve and the posterior root to the spinal cord and thence to the brain. The command goes out to "draw the finger away." The mandate travels down the spinal cord to the anterior root, and thence through the motor fibres of the nerve to the muscles, which immediately act, and the finger is at once removed. All this takes place with great rapidity, but yet with nothing like the celerity once imagined.

The researches of Helmholtz, a distinguished German physiologist, have shown with great exactitude the rate of speed with which the nerve fluid travels; and other observers have given a great deal of time and patience to this and kindred questions. As the result of many deliberations, it was ascertained that the nervous fluid moves at the rate of about 97-1 feet in a second. Now electricity travels with a speed exceeding 1,200,000 feet in a second, light over 900,000,000. A shooting star moves with a velocity of 200,000 feet in a second, and the earth in its orbit around the sun, 100,000. A cannon ball has a mean velocity of 1,800 feet in a second; an eagle, 130; and a locomotive, 95. We thus perceive the nervous fluid has no very remarkable rate of speed—a fact which, among many others, serves to indicate its non-identity with electricity.

Prof. Donders, of Utrecht, Holland, has recently been making some interesting experiments in regard to the rapidity of thought, which are likewise interesting. By means of two instruments, which he calls the nmatacograph and the nmatachometer, he promises some important details. For the present he announces that a simple idea requires the brain to act for sixty-seven one thousandths of a second for its elaboration. Doubtless the time required is not the same for all brains, and thus, by means of these instruments, we may obtain definite indications relative to the mental calibre of our friends!

For the eye to receive an impression requires seventy-seven one thousandths of a second, and for the ear to appreciate a sound, one hundred and forty-nine one thousandths of a second is necessary. The eye, therefore, acts with nearly twice the rapidity of the ear.—*The Galaxy.*

Rapidity of printing has just been carried out in France to a degree far exceeding anything which has yet been accomplished in machine work, and outstripping the famous American machines which were supposed to have realized everything attainable in the way of speed. Mr Marinoni has put in the new printing office of the *Petit Journal* (a one cent daily paper) a marvellous machine of his invention, which prints 600 copies a minute. Four of these powerful machines turn out 144,000 copies an hour, the whole impression being 446,000 daily.

GIRLS.—There are two kinds of girls. One is the kind that appears best abroad, the girls that are good for parties, rides, visits, balls, &c., and whose chief delight is in such things. The other is the kind that appears best at home, the girls that are useful and cheerful in the dining room, sick room, and all the precincts of home. They differ widely in character. One is often a torment at home, the other a blessing. One is a moth, consuming everything about her: the other is a sunbeam, inspiring light and gladness all around her pathway. The right education will modify both a little, and thus unite the good qualities of both in one.

Many favors which God giveth us ravel out for want of hemming, through our own unthankfulness; for though prayer purchaseth blessings, giving praise doth keep the quiet possession of them.—*Fuller.*