## NOTES FOR TEACHERS.

THOSE who would train the mind to its highest capacity must furnish to the young the record of deeds of heroism, of benevolence, of self-sacrifice, of courage to resist the evil and maintain the good.—Dr. McCosh.

THE questions that will be most generally discussed by teachers during the next five years will be those that will have direct reference to the soul and spuit of education, and not those that concern the mechanism by which the schools are run.—School Fournal.

ELECTRIC LIGHTED BUOYS .- Incandescent lamps on buoys are found to be a practical success after one year's test in Gedney's Channel, New York Harbour. During the last nine months over 220 ocean steamers passed through the channel during the night, and not more than two lamps out of six were extinguished at any one time. Red glass globes did not last so long as plain ones, probably owing to the interception of a greater portion of heat. Red lamps are now used around clear glass lamps on all buoys.

THE MICROSCOPE.—The invention of the microscope has been, by general consent, attributed to Cornelius Drebbel, a Dutchman, and its date is usually given as 1621. According to Signor Govi, an Italian savant, the credit of the first construction of the microscope must be awarded to Galileo, and its first construction dated back eleven years. In a paper presented by Signor Govi to the French Academy of Sciences, he claims for Galileo the distinction of having invented the microscope, as well as the telescope, and supports this claim by the following reasons :---He has found a book printed in 1610, according to which Galileo had already directed his tube fitted with lenses to the observation of small near objects. The philosopher himself stated shortly after this date, that he had been able to observe through a lens the movements of minute animals and their In a letter, written organs of sense. in 1614 to Signor Tarde, he states that he has with his microscope "seen and observed flies as large as sheep. and how their bodies were covered with hairs, and they had sharp claws." -School Newspaper.

PHOSPHORESCENCE --- It would seem as if the influence of bacteria and micro-organisms generally upon higher forms of life was only just beginning to be understood. The researches of naturalists are constantly bringing new and unexpected facts to light. For instance, there is nothing better known than the frequent phosphorescence exhibited by marine animals, and especially the crustacea. This phosphorescence is frequently infectious; that is to say, it can be communicated by touch. A French naturalist, M. Giard, has just made known the results of some observations and experiments he has been making with Talitrus and other crustacea. On microscopically examining a brightly phosphorescent specimen he found walking slowly on the beach instead of leaping, as its habit usually is, he traced the phosphorescent light to the presence of bacteria in its muscles, which were greatly altered. On inoculating other and healthy individuals of this and other species, the same disease was produced among them, and M. Giard says that his laboratory was quite lit up at night with these diseased but luminous crustacea. The inoculation was continued to the sixth