[Feb. 3, 1894

any amount of theoretical knowledge in this respect would avail her little, if those in charge neglected such principles. With regard to testing urine, it would be necessary first to instruct the candidate what she was to test *for*, which would involve a wider understanding of the laws of health and disease than one could fairly expect to find in an untrained person who might, after a month's trial, be found physically unfitted for the work. The same applies to padding splints and bandaging, where the manual dexterity necessary for success is best insured by an early training in plain needlework, of which it is usually the correlative.

If a candidate be required to possess all these varied qualifications, I should humbly like to ask in what her hospital training shall consist, and whether it will be quite fair to demand the same lengthened period of service from her after her entrance into the Hospital. I do not see, either, how it will be possible to enforce a premium, as she can no longer be considered in the position of an unskilled labourer. These are the problems which we must be prepared to face.

I cannot help thinking it is a mistake to allow our-selves to be influenced by the idea that *education* is all that is necessary in a Nurse. Moral fitness is of equal, if not more, importance (I speak in no restricted sense), aud without physique neither are of much consequence. The question is *this*, Can we expect to find a combina-tion of all these attributes in the same person? for, if so, the Utopia of Matrons is reached. Examinations, as ordinarily conducted, afford a melancholy proof of the fact that they are of very little use as a test either of knowledge or capacity-one of the best Nurses I ever trained only just managed to scramble through at the bottom of the list, while another, absolutely worthless and untrustworthy so far as her profession went, came out at the top. It is impossible to overrate the importance and value to a woman of a good general education; but that is quite a different thing to requiring her to learn up a certain number of subjects to enable her to pass an examination. No one can be either the wiser or the better for such learning-it is forgotten as soon as the necessity for producing it has passed away. In the words of one of our most experienced examiners-"They cram to pass and not to know, and outraged science takes her revenge, and they *don't* pass and they *don't* know." But what I chiefly wish to point out is, the undesirability of making an educational test binding on all candidates alike. We must recognize that there are diversities of gifts, and that all should be meted out due recognition-a recognition, however, based on the assumption that the most learned are not necessarily the most capable. The proposed plan savours somewhat of arbitrary interference with the liberty of the subject. Hospitals are maintained by the public for the subject. Prospirals are maintained by the public for the benefit of the public, and Nurses, who are part of the public, should share (as a return for their labour) in the privileges of a training un-trammelled by hard, and in some cases impossible, restrictions. I must conclude with an apology for the length of my letter, and beg to remain-Yours faith-JOSEPHINE L. DE PLEDGE. fully.

[Our readers will perhaps agree with us that Miss de Pledge, in the literary talent of the above letter, has unconsciously proved the immense advantages to the public and to the profession consequent upon securing well educated gentlewomen as Nurses.— ED.]

## Medical Matters.

## DISEASED MILK.

It is a well-ascertained fact that there are many diseases besides typhoid fever which can be conveyed through the medium of milk, and it is, therefore, a point of very great practical importance to determine the manner in which this fluid can be rendered free from the germs of disease. The Bureau of Animal Industry at Washing-

ton has, by order of the United States Secretary of Agriculture, very carefully considered this matter, and has drawn up a series of instructions for the sterilization of milk which are of the greatest importance. It is well known, of course, that heat has more destructive effect upon bacilli than any other agent, and this fact, for example, is utilized successfully in cleansing and preparing instruments for surgical use. It, therefore, is only a continuation of the same principle which has now been applied to the removal of disease from milk by the following process :-The bottle or other vessel containing the fresh milk is placed inside any convenient metal vessel, water being poured into the latter till it reaches the level of the milk. The bottle holding the milk has its mouth plugged with absorbent cotton or, in its absence, any other kind of clean cotton. It is necessary that the milk-vessel be raised about half an inch from the bottom of the outer vessel, for which purpose a perforated tin pie-plate or other convenient means may be adopted ; a free circulation of water around the milk-bottle is thereby rendered possible. When all is ready the apparatus is heated on a fire or stove till a temperature of 155 degrees Fahrenheit is reached, when the vessel is taken from the fire and kept tightly covered for half an hour. The bottle or bottles of milk are then taken out and put in a cool place. The milk may be used at any time within 24 hours. It is stated that a temperature of 150 degrees maintained for half an hour is sufficient to destroy any germs likely to be present in the milk, and it is found in practice that raising the temperature to 155 degrees and then allowing the milk to stand in the heated water for half an hour insures the proper temperature for the required time. It is important that the temperature of the water should not be allowed to exceed 155 degrees, as otherwise the taste and quality of the milk are likely to be adversely affected. An ordinary dairy thermometer may be used and the temperature tested from time to time by lifting the lid of the outer vessel. For constant use, however, a hole may be punched in the cover of

80



