

physiology, disease and its modes of action, and therapeutics, only to be acquired in a school. Then the skill in performing in the best way all the duties of a nurse, can only be acquired by practice in the wards of a hospital under the eye of one who has such skill. Again, what we might call the ethics of the profession, and which are of the utmost importance, are best learned under the discipline of a school. The spirit of obedience to the physician should pervade the nurse's whole work. No theories of her own may stand in the way. Her duty is to carry out the instructions she receives. On the other hand the physician must be loyal to the nurse and do everything that will strengthen the confidence of the patient in her if deserved. Other great lessons to be learned are forgetfulness of self, willingness to do whatever is necessary, courage to perform duty in spite of protest of patient or family, to be strong and at the same time kind, to be ever watchful, to preserve a happy and hopeful demeanor even in the face of discouragement. In truth, to be the ideal nurse requires the ideal woman, and to truly fill so high and noble a sphere demands all the best gifts of nature and all the best training of the schools.

CATHETERS AND BOUGIES.

In a recent issue of the *N. Y. Medical Journal*, there appeared some "notes on American catheters and bougies," by Dr. S. W. S. Gouley, and we thought that some of the information therein contained would prove of interest to our readers. After a brief history of the use of the catheter he goes on to state that the manufacture of this article in the United States is of comparatively recent origin. The material used for the frame-work of American web-catheters are cotton, flax, ramie and silk; the labour of weaving the cylinders is nearly the same in all qualities of web catheters, and the same varnishes are used for coating the different grades. The eye in the higher grades of catheters is woven, while in the lower ones it is punched. The American (Tiemann's) India-rubber instruments are superior to those of foreign importation in the construction of the eye, in the high polish of their surface, and in the smoothness of their interior. He then mentions some of the properties of good web catheters. (1) They should be highly polished

and coated with varnish both inside and out. The varnish, which is pliable, is not apt to crack, and should resist the action of moist heat up to 212° F. (2) Their length does not exceed thirty-three centimetres (thirteen inches). (3) Their diameter is from two to nine millimetres. (4) The point is smooth and rounded, and the single oval eye is about one centimetre from it. In curved, elbowed, and double-elbowed catheters this eye is usually lateral. In some of them the vesical end is open for catheterism upon a whalebone conductor, and we have seen some useful instruments of this pattern for passing over a catgut conductor. (5) They are firm but pliable, never rigid from end to end. (6) The best American silk-web catheter has, by actual experiment, a tensile strength of 115 pounds, without breaking, though the varnish was stripped off during the trial.

A catheter that is to be retained in the bladder should not be too thickly coated with varnish. The lisle-thread, silken-linen, and those silk catheters with a thin external coating, resist longer the action of urine, and, even after being retained for forty-eight hours, do not lose their smoothness.

The ordinary "ten cent" commercial catheter may be used for a single day, and thrown away; or "it may be repeatedly boiled without injury, and used as long as the surface of the instrument retains its smoothness."

Then as to the care of catheters: (1) Web catheters should not be coiled, but kept at full length. (2) They should be loosely wrapped in *dry* antiseptic gauze, and preserved in a metal case with a well fitting top. It is hardly necessary to add that after using they should be carefully cleansed, dried inside and out, and replaced in the gauze and case. (3) Soft rubber instruments too should be kept at full length in *moist* antiseptic gauze preserved in tightly corked glass tubes. Exposure to the air leads to rapid oxidation, which causes the instruments to become hard and brittle. (4) Preparatory to using a rubber or a web catheter, it should be immersed for a minute in a 1% carbolic acid solution. If it be left too long the carbolic acid acts injuriously upon the rubber of the one and the varnish of the other. The web catheter may be gently warmed by friction with the hands before using; this prevents cracking of the varnish. (5) These instruments are much injured