taken during the day. The morning urine has been derived from the blood during the night, and therefore in the interval of digestion, and thus may contain no sugar.

The urine of food may be quite different from the urine of fasting.

I remember once a patient whom I had treated for some time, coming to me with a bottle of night urine containing an unexpectedly large amount of sugar. I could not account for this sudden increase of the amount of sugar in it. I got him to enumerate the articles of food he had taken the evening before. Among the articles' enumerated he named blanc mange, but he had frequently taken that before without injury. I told him to inquire, and that in all probability he would find that it had not been made in the usual manner; and upon doing so, he learned that it had been made with corn flour (corn-starch) instead of in the manner that had formerly been done, viz., with isinglass and cream. In another instance, I was able to tell a patient that she had taken her breakfast in bed. I found in this case that the night urine contained no sugar, while the morning urine was loaded with it. She had arisen late, and the only way of accounting for these conditions observed was on the supposition that she had eaten before arising, and this I found was actually the case.

Now we want some means of easily and precisely determining the amount of sugar contained in the urine. This can be done as follows : As we know and have just seen, in testing in the ordinary manner with the copper solution, the suboxide of copper is precipitated. In the method that I shall show you, instead of this, the solution remains clear, and becomes colorless, and the sugar is estimated from the amount of liquid being examined, that is required to decolorize a given quantity of the solution. The solution is made with the sulphate of copper, Rochelle salt, caustic potash, and water of ammonia. Into a given quantity of this the liquid containing sugar is dropped. It is best in testing urine to dilute it with twenty or thirty parts of water in order to make the test more delicate. The diluted urine is placed in a graduated curette, from which it is dropped into the ammoniated copper solution after the latter has been heated to the boiling point, letting it flow drop by drop until the color has just entirely disappeared. The dropping of the liquid into the test solution is guided by means of a screw adjustment affixed to the tube, which can be set so as to permit the escape of forty, fifty, eighty, or one hundred drops per minute. The beauty of the test is that the exact terminal point of the reduction can with the greatest surety be determined, for there is no precipitate to obscure the view of the reduction. You observe now in the apparatus before me that as the saccharine liquid drops into the boiling test solution the color is gradually disappearing and the liquid remains perfectly clear.

Sometimes, albumen is found in addition to sugar in the urine of the diabetic. Not infrequently you will find that when the patient first comes under your observation he has a considerable quantity of albumen in his urine, and that after he has been under treatment for the disease for a while the albumen disappears. This will permit me to bring to your notice a convenient test for This consists of citric acid and the albumen. ferrocyanide of sodium, the ferrocyanide of sodium being used because it makes a looser pellet than the ferrocyanide of potassium, and therefore more quickly dissolves. There is this advantage about it, that as a clinical test you require nothing more. If albumen is present, you are sure to get y a precipitate; and if you get a precipitate, you are sure that albumen is present. It is also a test of an exceedingly delicate nature. It is a test that requires nothing to check and nothing to corroborate. You can carry it with you in your pocket like a pencil-case or pocket-knife. No matter whether I need it or not, I always have my albumen test in my pocket with me. I have here. as you see, a very compact tube containing all that is required. I will show you the method of using the test with this liquid, which contains albumen. The citric acid pellet must be used first. It very speedily dissolves. Sometimes citric acid will bring down a precipitate of uric acid, or it may be of oleo-resinous matter; but, as it is not the citric acid which is the test, we do not rely upon that. If the citric acid brings down a precipitate of uric acid, a dilution of the urine will redissolve it. On the addition now of the other pellet, consisting of ferrocyanide of sodium, you have a definite and reliable precipitate of albumen produced. This test has now been out several years, and, so far as is known up to the present time, nothing under the circumstances will occasion a precipitate with the pellet of ferrocyanide of sodium besides albumen, so that it is a test upon which you may rely alone.

I will speak now of considerations bearing more particularly upon the disease itself. There are different grades of intensity probably as marked in diabetes as in any disease we have to deal with. Let us start with a healthy person. Even a healthy person has not an unlimited power of assimilating the carbohydrates, but the first step toward disease is where the assimilative power. is below the normal. This kind of person will not, under ordinary circumstances, pass sugar in his urine. If, however, he partake freely of preserves, or other articles of food containing large quantities of sugar, he will pass saccharine urine. Then you come to persons who, when partaking moderately of food containing carbohydrates, will pass sugar. They may take carbohydrates to a certain extent without showing evidence of abnormality, but as soon as the limit is passed in sugar will appear.

Age influences largely this complaint. Severe cases are in young subjects, mild cases are in old