Three series of experiments were made:

1. Eight animals (of which six are reported) were given very frequent subcutaneous injections of 0.25 mg. of uranium nitrate in aqueous solution, from 46 to 87 doses being given in from 77 to 120 days respectively. In this way it was hoped that I might simulate in a certain degree the long-continued mild intoxication which is considered to be an etiological factor in the development of the primary contracted or small red kidney.

2. Seven animals (of which five are reported) were given subcutaneous injections of 2.5 mg. of uranium nitrate at intervals of

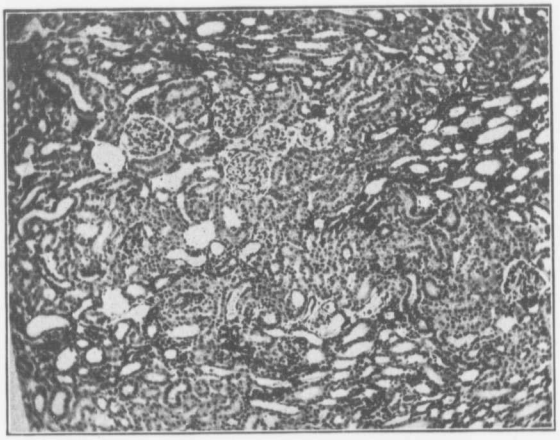

Fig. 3.—Guinea-pig 26: 36 injections of 0.25 mg. in 45 days. Very low power showing the wide distribution of the dilated tubules and the cellular infiltration between them.

from 10 to 30 days, the number of doses and the interval being determined in each case by the reaction of the animal as indicated by the changes in the weight and the urinary picture. The dose was sufficient in each case to produce a definite nephritis, which however was not severe enough to kill the animal. In this way I hoped to be able to show the effect on the kidneys of repeated subacute attacks of nephritis.