DIGITALIN, IN SOMEWHAT LESS THAN 1 PER CENT. SOLUTION.

Of all the drugs and poisons used, none has produced such decided manifest, rapid and constant action as digitalin. It was used in a solution of rather less than 1 per cent., and the results were precisely the same whether applied to the isolated heart or to the heart *in situ*, though, as is to be expected, much more rapid in the former case, on account of the better state of nutrition in the heart under normal conditions, enabling it to resist longer all kinds of foreign influences. This principle applies in all cases, so far as I have observed, of the action of cardiac drugs and poisons.

The action of digitalin may be stated thus :

1. Digitalin, when applied to a rapidly-beating heart, slows it.

2. *Its invariable action, no matter what the condition of the heart, is to produce gradually increasing systolic contraction, the diastolic relaxation getting less and less till the heart is finally arrested in most pronounced systolic tetanus.*

3. The peculiar action of the drug requires a short period before there is any decided manifestation of its effects ; but when the latter do appear, they rapidly advance to a maximum.

4. It is not possible to stimulate a heart brought to stand still by digitalin, to beat by mechanical means.

5. When the action is well pronounced, a large part of the time occupied in the systole of the ventricle is taken up in *maintaining* contraction when that is complete.

6. Digitalin neutralizes the action of various chemical agents which, when applied to the heart, tend to cause undue diastolic relaxation—(*e.g.*, Pot. Carb.)

7. A ventricle brought to stand still by digitalin is unusually small, hard and pale ("tonic" contraction).

NICOTIN IN 1 PER CENT. SOLUTION.

The effects of this agent I have found somewhat variable. A comparison of my different experiments will, I think, justify the following general statement :

1. The first effect of nicotin has generally been arrest of the