lady to be quite freed from house-keeping cares, so to let her go into lodgings, and have all the shopping to do, is not wise.

These points may be considered too trifling by some, but experience teaches one that it is desirable to enter into details of this sort; perfect contentment, with the surroundings, aids a cure. A well-known Irish member is reported to have said that in any future treaty between England and Ireland, a clause, annexing Harrogate to the latter country, will have to be included. He evidently considered that Ireland required Harrogate as a holiday ground and health resort for its people, and I agree with him.

In conclusion, let me repeat what I have said before as to the selection of cases. If a patient, no matter what his special ailment may be, has a chronic disease which is not organic, but yet fails to get well under ordinary treatment, it is worth considering whether a three weeks’ course of such treatment as I have endeavoured to describe, would do good. If the ailment or condition can be shown to be caused by faulty chemistry of digestion, or by want of free elimination of waste products, surely a treatment in which bowels, kidneys, and skin are kept in activity, without any special strain on the constitution, is worth trying, particularly if the patient is one likely to be benefited by change and rest.

ART. XXX.—Defective Metabolism in its Relation to Gout.*

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That the normal metabolism of the human body, both as regards tissue change and the elaboration of the alimentary substances introduced from without to maintain them, should produce no disturbing effects on the organism of a healthy individual, we regard as the first principles of physiology.

By a perfect metabolism we mean a perfect functioning of all the various physiological processes that take place in

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the body. For convenience of classification we group these processes under anatomical heads called systems, all interdependent on each other in maintaining the health of the individual, and derangement in any one of which is followed by imperfect functioning of the others, producing evidences of defective tissue change, both destructive and constructive—all of which the term metabolism comprehensively includes.

In this paper I am only concerned with those systems that seem to me to be mainly responsible for the production of a vicious change in this metabolism, leading to what we understand as uricacidæmia, or gout. According to the most recent views gout is uric acid in excess, which, driven from the blood in a sub-alkaline condition of that menstruum—being no longer held by it in solution—precipitates itself in back waters, so to speak, of that fluid where the stream is slowest and weakest, carrying with it in its flight some of the soda salts of the blood; and, after precipitation, robbing the tissues around it in its new resting-place of all alkaline salts contained in them, to return again to the blood when a rising alkalinity of that fluid tempts it back, or to remain in its resting-place if a sub-alkaline condition of the blood continues. Both in the blood and out of it in the tissues, it is, when beyond a certain proportion, a foreign body, and manifests itself in both situations by well-marked symptoms. All recent writers on the subject are nearly agreed as to this being the condition of affairs in gout; but what they are not agreed on is, as to why uric acid in excess should be present in the blood?—and it is on this aspect of the question I venture to offer some remarks.

Whence comes this excess of uric acid? According to those who regard it from a merely chemical point of view, the excess is due to the food ingested being too highly nitrogenous, and the blood—being low in alkalinity from acids introduced with them—is an insufficient solvent for uric acid formed out of the compounds of urea at or in the renal barrier, and the kidneys failing to eliminate, it is carried back again into the circulation by the renal veins. Whilst others explain it by the individual possessing a hereditary tendency to form uric acid in excess, and the kidneys failing in elimination, it gradually accumulates in the blood. These