otherwise, regardless of the conditions in which they exist in the mother structure of the drug which yields them.

Another question was asked me as to the physiological aspect of Kryptonine. I do not place as much dependence on the physiological action of a drug on a creature in health, or its disturbance of a normal life function as proving its total therapeutic value, as some people do. But this is an invaluable method for establishing certain qualities (activities) of the drug, even if it does not always apply in diseased conditions. Kryptonine has been put into the hands of a well-known pharmacologist, but I have not as yet received his report.

Let me say in conclusion that I have not answered all the questions that have been asked me, because of my hesitancy in directions in which I feel myself quite inadequate. The whole colloidal problem is to me full of questionings. The ultra-microscope will be a mighty factor, in my opinion, in determining the answers to many of the questions that have come to me, as well as to many others, as yet unuttered.

## SOLID AND POWDERED EXTRACTS.

## BY E. L. MAINES.

The U. S. P. Ninth Revision states that "Pilular Extracts are solid or semisolid products prepared by exhausting drugs with appropriate solvents and carefully evaporating the solutions to the proper consistence."

It also further states that, Pilular Extracts are extensively used in pill masses and in ointments and, to facilitate their use in these preparations, the degree of concentration is commonly directed to be that of a "pilular consistence."

The Pharmacopæia tells us that for the convenience of the prescriber, the standards of strength for the extracts have been adjusted, wherever possible, so that each bears a definite relation to that of the respective drug of average strength, and a statement of the standard precedes the formula.

This is certainly a step in the right direction.

For some time the writer has endeavored to procure definite standards for non-alkaloidal solid and powdered extracts, this work being taken up by the Scientific Section of the American Association of Pharmaceutical Chemists.

The term "pilular consistence" is indefinite and questionable. Solid extracts may be of "pilular consistence" and yet be adulterated with fifty percent or more of glucose.

Powdered extracts are even more liable to "filling" with starch, magnesia, powdered marc, kieselguhr, etc., than solid extracts.

Unofficial non-alkaloidal powdered extracts may be made to almost any standard and yet pass undetected.

This is decidedly unfair in a commercial way to say nothing of its practice as a menace in a therapeutic way.

The physician must depend upon reliable, uniform and potent remedies in order to obtain satisfactory results.

In a commercial way it is of utmost importance that extracts be of some definite strength. One firm quotes upon a 1 to 3 extract while another quotes on a 1 to 5 product. What is the result? The consumer thinks one party is taking an unfair advantage of him or he could quote a lower price.

Much of this could be eliminated by proper regulation of standards.

I would suggest that the next Revision Committee consider the advisability of adopting a uniform and definite relation of drug to extract for every commercial crude drug and that this list of standards be included in the text of the next Pharmacopæia for both solid and powdered extracts.