fatal towards the rapid progress which has been made in the department of medicine and surgery in years past.

Upon the results depending upon researches in physiology and pathology, depend the progress made in the field of therapeutics. The progress in pathology made in recent years in reference to its analysis of the nature of tissue changes, has been influenced to a considerable degree by the progress made in bacteriology.

Pathology not only explains why certain changes and its causes occur within the organism, but it also explains the particular alteration in one tissue and the change in another instance. Microscopical and experimental analyses have been active in discovering fundamental facts, and gaps which a few years ago were left open by pathology, have been covered since the knowledge of bacteriology has been established.

Experimentations in order to be of benefit in the department of medicine and surgery, must embrace three lines of inquiry: First, an experimentation upon lower animals: second, statistical observations of the results of treatment, and third, individual observation at the bedside in clinics and hospitals.

Of great help in the advancement in pathology and bacteriology has been the work done in the biological laboratories independent of any medical college or hospital. The labors of physiologists and pharmacologists and organic chemists have given us results which enable us to give a more interesting and practical and useful course of lectures on materia medica and therapeutics than we have been able to do in previous years.

Amongst the recent advancing steps in pathology, we have had an opportunity to get a thorough glance at the perfect understand- of hematology, and we have learned to know that in most cases the examination of the blood is the most important factor, that in fact it is more important than the examination of the urine, and it is already an acknowledged fact that the examination of the urine is necessary in each and every case.

Referring to the very latest text-books on physiology, we learn that the inorganic salts of the urine consist chiefly of the chlorides, phosphates and sulphates of the alkalies and alkaline earths, that they arise partly from the salts ingested with the food, which salts are eliminated from the blood by the kidneys in the water secretion, and in part they are formed in the destructive metabolism which takes place in the body, particularly that involving the proteids and related bodies. Referring especially to the phosphates, we learn that they come in part from the destruction of phosphorus-containing tissues in the body, but chiefly from the phosphates of the food.

These teachings seem to demonstrate the inaccuracy derived solely from an examination of the urine. Analyzing the foregoing statements as laid down by our text-books, I desire to comment upon them as follows: that should the phosphates of the urine be chiefly from the phosphates of the food, it would naturally involve