dustrial life but form the basis on which to build our magnificent systems of education, morality and politics. As human knowledge advances the realm of superstition and bigotry contracts because there can be no superstition where knowledge is and no bigotry where broad views of things exist. Science shows that all processes of nature are based on immutable laws. Many of these are known, others are foreshadowed by the brilliant conceptions of the scientific imagination, while some are still unknown and belong to the category which was once regarded as supernatural, but which is now relegated to the undiscovered. If science in its comparative infancy has thus been able to make such magnificent contributions to those elements which make life worth living, what may we not expect of the future years, when the knowledge which we have to-day will seem only as ignorance to our descendants? We judge science by what it has already accomplished. We know it by its results. When these wonderful contributions to human welfare shall have been made in the future, the words of our text will be no less true: "Ye Shall Know Them by Their Fruits."

Transmissible Diseases in College Towns.

Severance Burrage.

The college town of moderate size is unique in some respects, unique in the possession of certain opportunities for the contraction and dissemination of various diseases. College students, as a class, are looked upon as healthy to an unusual degree, and in many respects this view is a correct one; and yet when looked at from the standpoint of sanitary science, we find them exposed to many dangers that are oftentimes overlooked. Many of these dangers do not exist in other communities.

The herding together of a lot of men or boys into unhygienic quarters in unsanitary dormitories is one of the features of the student's life that must be looked upon as a danger. It is also an added responsibility to the college authorities. When the dormitory fulfills all the requirements of the rules of hygiene and sanitary science; and when there are good hospital facilities for students living in the dormitory who may become ill with a contagious or an infectious disease, then the above statements might be somewhat modified.

But when the dormitory system does not exist, and the students are distributed about the community in private and fraternity boarding houses, then dangers to the students as a mass are greatly reduced, while on the other hand there are dangers added to the community at large.

In many of the college towns as we find them in Indiana, there is no such thing as a detention hospital or a pest-house, and under these conditions the question arises as to the disposition of the sick student, and of the other occupants of the same house. If the whole house is quarantined, as the rules of the Board of Health require, and I believe rightly so, then the inmates are or seem to be needlessly exposed to the disease unless extraordinary precautions be taken by each one who finds himself at that time a member of the unfortunate household. And under such conditions, it is difficult not to be in sympathy with the student or students who break quarantine and go to their homes. I am not giving my sanction to any such actions, however, unless every preventive measure be taken before each one departs. I refer to such measures as vaccination, disinfection of body, clothing, and any articles taken away as baggage.

Another feature that is of vital interest to the student is the matter of procuring food. The usual method when there is no general dining hall for the students, is to form clubs, the main feature of which in most cases is to get the meals for very little money. The consequence is that by paying their $1.50 to $3.00 per week the students are fed three times a day on something. It is possible that we have here in our college towns some experiments on adulterated foods and improper dietaries on a larger scale than our President Wiley is conducting at Washington, but we have no one to keep record of them.

Now there are two features about this food that I desire to call attention to:

First. Are not the students who are subjected to such diet—I can not go into the details of the diet here,—are not the students who are subjected to this diet, more prone to come down with a transmissible disease than those who get a more wholesome diet?

And second. Is there not a greater chance of coming in contact with infected food at these low-priced boarding tables? Certainly these two factors working together, form a feature of student life that is worth consideration, as one of the dangers existing in a college community. To emphasize this last point, I take this opportunity to describe a recent

epidemic of scarlet fever among the students at Purdue University, and it is this that I consider the feature of this paper.

About the first of December, 1902, it was reported to the authorities of Purdue University, that there were a few cases of suspicious sickness among the students. One instructor, also, was found to be quite ill, and during the illness had a well defined rash, and later had the characteristic "peeling" of scarlet fever. This case was not reported at first as being scarlet fever.

Six cases were confined in the hospital (St. Elizabeth's) and twenty-nine others, most of which were not well defined cases, were at large among the other students. Some few cases were purposely concealed by students and physicians, so that other students rooming in the same houses would not be quarantined, and thus lose time from their classes. At first, no common source of infection could be traced, the boys not eating at the same places, and in some cases not even knowing the other patients. The thirty-five cases, it was found, were fed at eleven different boarding houses or clubs, all of which were supplied with milk from the same dairyman.

Interesting, too, in this connection was the fact that the boy who assisted in delivering the milk, came down with a severe case of "tonsilitis" at the same time as the students, and had to give up his work temporarily. Five private families, supplied with milk from this same man, had one or more cases of genuine scarlet fever among their children at the same time. It is not likely that the boy who delivered the milk spread the disease, but that he contracted it by drinking the milk as did the students.

An investigation of the dairy, and the dairyman's family, did not reveal anything that could have caused the epidemic. There was no sickness in the family, nor in either of the other two families that supplied the dairyman with additional milk. The probable explanation of the source of infection lies in the fact that last March the dairyman's family ran through a course of scarlet fever, and this being about the time that the winter clothing was abandoned for the thin summer clothing, that winter clothing would again have to be put on but a short time prior to the outbreak among the students at Purdue. As it is known that the scarlet fever infection may remain virulent for a considerable time in clothing, it is not unlikely that it was through this means that the milk was infected. There is one other possibility, viz., that there might have

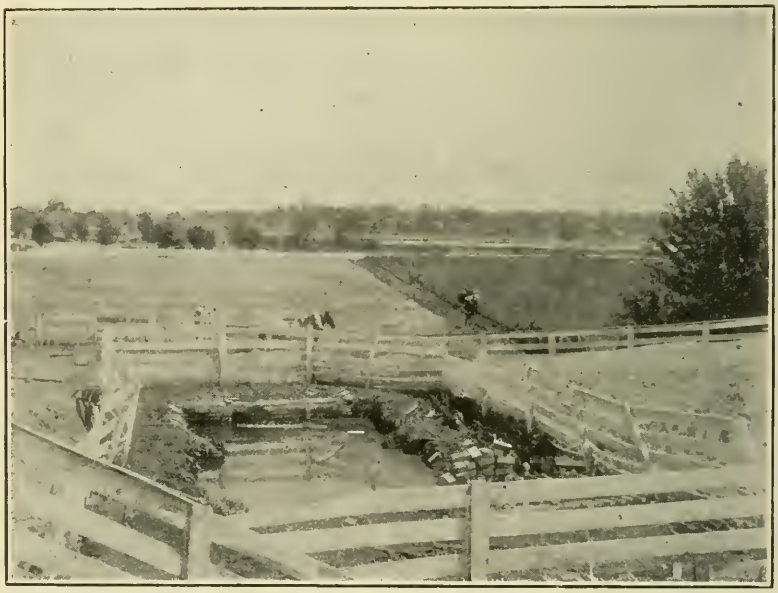
been another family supplying the dairyman with milk in addition to the two families that he named, and he might have concealed this fact, knowing there was some sickness there. In this case the dairyman would be far more culpable.

This is one of the few scarlet fever epidemics traced to infected milk that have been reported in this country.

Sewage Disposal at the Indiana State Reformatory at Plainfield.

Severance Burrage.

The problem which recently presented itself to the authorities at the State Reformatory, at Plainfield, was a pretty one. An appropriation of $6,500 was available for the purpose of securing a certain amount of



Old Cesspool, showing method of disposal of sewage prior to new system.

plumbing in each of the so-called "family" buildings and to install a system of sewage disposal that first, would be sanitary, and second, would