

SCIENCE.

FRIDAY, JULY 10, 1885.

A WESTERN SCHOOL OF BOTANY.

IN anticipation of the full development of his noble foundation for botany and horticulture at St. Louis, Mo., Mr. Henry Shaw, the venerable founder, has specially endowed a school of botany in Washington university, which will for the present be served by a professor and a laboratory assistant. Professor William Trelease of the Wisconsin state university, a doctor of science of Harvard, has been called to this chair; and we understand that he will accept this hopeful position. When, in the course of time, the Missouri botanic garden, which Mr. Shaw originated, and has for many years so sedulously nourished and supported, comes with its generous endowment into completer connection with this school of botany, it will be seen that this central city in the valley of the Mississippi, happily placed for the purpose, is to have within its bounds an ample establishment for the promotion of botany and its dependent branches (such as arboriculture and horticulture), in the way of scientific advancement as well as of practical and educational teaching.

We understand that a laboratory and its appliances, sufficient for the present, will be supplied at once at the university in the city. But eventually the principal work of the school will probably be carried on at the garden at Tower Grove, adjacent to the park (a gift of Mr. Shaw to the city), which of itself will nearly serve for an arboretum. Here an adequate botanical library and an herbarium (both essentials) will doubtless be provided: we believe there is already a foundation for them. And so, if Mr. Shaw's long-cherished intentions and bountiful provisions are wisely carried into effect, the city in which Engelmann, alone and unaided, pursued his botan-

ical investigations for a lifetime, may before long rejoice in the possession of much better facilities and larger means for botany than any other part of our country has now, or is likely to have. May the success of the new school of botany be commensurate with such advantages!

SANITATION AND SCIENCE.

PRACTICAL sanitation is devoted to the prevention, avoidance, or destruction of the causes of disease and death, and is founded on our knowledge of these causes. This knowledge is the scientific aspect of hygiene, or what many call sanitary science. It is at present very fragmentary and imperfect. Our powers of prediction as to the effect which certain circumstances will produce on the health of an individual or a community are limited, and in many cases we cannot, with any approach to scientific precision, explain why a given locality is, or is not, unhealthy. The first step towards a scientific investigation of a phenomenon must be the verification of its existence; but in much the larger portion of this country we can obtain little positive information as to the extent to which the inhabitants of a given place are liable to special forms of disease, or even as to the death-rate to which they are subject.

Until within a comparatively recent period, the method which has been almost exclusively employed in the investigation of problems of public hygiene has been that of observation of general and special mortality rates in different communities, and of endeavoring to connect the results of such observations with the circumstances of the environment in order to discover the causal relation between the two. But in such complicated biological problems as these, in which the result observed may depend on the concurrence of many causes or circum-