geometrical drawings, rendered in color with projected shadows. An accurate perspective of the finished elevations must be drawn in line. The set of drawings must be accompanied by a thesis explaining the principles of architecture, historical and aesthetic, which governed the choice and development of the design.

The authors of the selected preliminary sketches will be required to pass examination in the following subjects:

1. History of architecture, and the arts immediately connected with it.
2. Elementary knowledge of the French language.
3. Plain perspective, projections, shades, and shadows.
5. Freehand drawing from the cast.

The committee make the following suggestions for the help of students preparing themselves for examination:

- In history — Lübke's History of Art; Ferlasson and Rosengarten's works on Architecture.
- In the French language — To exercise themselves in reading at sight portions of Viollet-le-Duc's writings.
- In perspective — The treatises by Prof. Ware and S. E. Warren; Ruskin's Elements of Perspective.
- In construction — Familiarity with ordinary practical construction in wood, iron, and masonry, and computation of strength of materials.


Practice in freehand drawing — A six-hour study from the cast will be required.

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Our attention has recently been called to the interesting sewerage experiment tried at the little city of Pullman, in the West, and the results shown by it are worthy of the attention not only of prospective sanitary engineers, but of all those who live in thickly settled communities. The town has a population of six thousand or more, and its entire sewage flows into a huge cistern beneath a tall tower, from whence it is pumped by steam power into a conduit and carried out to a prairie farm of fifteen hundred acres, which was formerly exhausted and barren land.

The sewage is here distributed by irrigation,—the land having been previously tile drained,—the solid parts being greedily ab-
sorbed by the earth to nourish the fruits and plants for the city; the liquids filtering through the soil and flowing into a neighboring lake.

The expense of thus treating sixty acres of land was eighty thousand dollars, from which land eighty-five hundred dollars were realized in fruits and vegetables the ensuing season.

Another example of this same system is to be found in a town of between five and ten thousand inhabitants on the outskirts of London, England, where the sewage is conducted away in a similar manner, making a valuable fertilizer. In this case the products were contracted for by the single owner of an extensive farm. No trouble was experienced in taking care of the entire quantity, and a well was shown, sunk to a depth of twenty feet or more, in which the water was clear and of good quality, the process of filtration having been so complete.

The drainage question is assuming a serious aspect in most of our large cities at the present day, and this method of disposing of it is eminently satisfactory so far as it has been tried. The American Architect makes an estimate on the sewage of Boston, and suggests that it furnishes the means of annually restoring to former productiveness the barren tracts of Southern Massachusetts,—from fifty to one hundred thousand acres.

The matter of expense is secondary, but then it would not exceed the enormous expenditures continually made by large cities, and with so poor success.

There have been objections raised to the system on the theory that the air would be filled with disease germs, or that poisonous properties would be imparted to growing plants and vegetables, but this has so often been refuted by scientists that it needs no further discussion here, and indeed would have no influence on intelligent minds. The many advantages are obvious, and where the drainage is complete there is no danger.

The idea is not a new one, but the credit of its present application belongs to the French, and we believe that its more general introduction is certain throughout the United States.