Department Notes.

During the summer, Room 34 in the new building will be fitted up as a laboratory of sanitary chemistry. The instruction in this branch of chemistry will be under the general oversight of Prof. Nichols, but in the immediate charge of Mrs Richards. It cannot be said that the fitting up of this laboratory meets a very pressing need, because the analytical and organic laboratories have hitherto furnished all necessary accommodations. These laboratories will be relieved of certain lines of work by the change, and the new laboratory will afford opportunity for advanced students and for special students desiring to carry out investigations in this portion of the field of chemistry.

The laboratories of the mining department will be thoroughly reorganized before the opening of the fall term, the changes being already well advanced. The floor of the old third-year laboratory has been laid with pressed brick, and the furnaces have already been put in,— ten crucible furnaces and three double cupel furnaces. This will be the assaying-room of the future, and what with the desks which will be provided for the men, and the new apparatus to be bought, much better work in assaying may be expected than has ever been accomplished before. The metallurgical laboratory will also undergo some modification. The platform now surrounding the pit will be taken away, which will make the pit about twice as large as it is at present; and a new cupola furnace is to replace the one now standing in the pit, which gives evidence of the hard work it has been through in years past. A large vault seventy-two feet long by sixteen and a half feet wide, six and a half feet clear, is being dug on the east side of the building, which will be divided into bins for the coal and ores of the mining department.

Many other changes are prospected, the details of which are not yet ready for publication. One feature more may be mentioned, however, which will be of interest to the miners, and this is in regard to a slight change proposed in the matter of instruction. It is intended to adopt the same plan now pursued in the chemical department of having papyrograph notes describing the apparatus in use, and their application to the processes in hand.

A committee of the Franklin Institute has been investigating the Shaw locomotive, and, though favoring the “duplex” principle of its construction,— a pair of cylinders on each side, the pistons of each pair moving simultaneously in opposite directions,— doubts its practicability on account of its complication. This fact and the doubtful success of compound locomotives here and in England indicate that there is no immediate prospect of a general change from two-cylinder locomotives.

The imports of iron and steel at New York during April were 42,003 tons.

Messrs. P. Lorillard & Co. have opened at Jersey City a free library and reading-room for the benefit of their three hundred employees; about ten thousand volumes will be procured, and the subscription list will include one hundred papers and periodicals.

Those who desire a comparatively permanent investment will do well to buy bonds of the Pittsburg, Ft. Wayne & Chicago Railroad, which has proposed to issue a series due at the option of the company any time after the year 1868.

Owing to changes made last fall in the basement, work on the beam-testing machine was not begun until some time in November, consequently the number of experiments has been smaller than last year. During the year tests have been made on yellow pine and spruce beams, both concentrated and distributed load, and on yellow pine headers with floor joists framed into them. Later, experiment was tried to find out what effect the mortises had on strength of the header, and although not enough tests were made to get an average, yet in one case it was found that where a 6’ x 12” header 5’ 4” long, hung in iron stirrups, with three floor joists framed into it, bore but 10,000 lbs. before breaking across mortises, a header of same section, 6’ 5” span, without mortises, centre load, could not be broken at 48,000 lbs.