Mechanical Engineering.

QUERY. — How much mash-inery did the excursionists encounter?

The excursion — a complete success. Unanimous.

The widest belt needed at the Willimantic mill with the high-speed Porter-Allen engines was eight inches across.

Hand files made at the arsenal contained one hundred and twenty cuts to the inch. A beam engine of two hundred and fifty horse-power, cylinders 36 x 48, had been running twenty years without appreciable wear or need of repair.

At the Holyoke Machine Company’s shops the interest centred in the bevel gear cutter and the powerful hydraulic presses for compressing paper sheets into compact cylinders. Under pressure of 2,000 tons the paper rollers became as solid as steel, and could be turned and polished as if metal.

The hearty thanks of all the party were given with the cheers for the Holyoke Water Power Company, who kindly placed the barge at our disposal, and gave the opportunity of visiting the new testing flume.

At the Britannia Works the Harris-Corliss engines, power presses, and metal turning received the most attention, though we noticed a number of youths much interested in the process of packing spoons. Well; she was pretty. We were pleasantly reminded of the paper-box making at Willimantic. Ask Sam.

An interesting operation at South Manchester was the cutting of cards for the chains of the Jacquard looms; first cut by hand, then automatically at the rate of two hundred and fifty per hour.

A Corliss with cut-off actuated by a steel spring was a novelty. Cylinder twenty-six inches, stroke five feet. Two hundred horse-power at one seventh cut-off, and two hundred and forty horse-power at one third.

Department of Architecture.

During our visit to New York week before last, we went to inspect the new Architectural Department at the School of Mines. The department is as yet not very extensive, consisting as it does of Prof. Ware and one regular student. Quite a number of the students from the other courses, however, attend the lectures on architectural history given by Prof. Ware on Mondays and Wednesdays. Owing to the limited number of students, Prof. Ware has a good deal of leisure, which he is occupying by arranging his lectures on perspective for publication. A new chapter is to be added.

The settling of the new Mills Building on the corner of Broad Street and Exchange Place in New York, which has created such an excitement, seems to be due to two causes: the poorness of the foundation bed (the present site of the building having been originally a swamp), and the too rapid advancement of the work, and consequent lack of time for the mortar in the brick piers to set properly before the superstructure was added. All the alarm was caused by the plasterers leaving the building one morning. The reason for this was merely that the elevator, which conveys them their materials, could not run while a defective casting in the cellar was being removed.

The first problem this term for the Seniors will be the one they had on examination, viz: “The Architectural Association, having become enormously wealthy, wish to erect a small yet ornamental and monumental building. It will contain a vestibule with cloak and two committee rooms, a picture and sculpture gallery, and a library. In consideration of the decorative character of the building, the city have granted the Association a site in the new park.” The principal problem which presents itself is the arrangement of the combined picture and sculpture gallery so as to provide a vertical light for the paintings and a horizontal light for the statuary. The suggestion is also made that the library will be more comfortable if it is provided with alcoves.