

in the educational and practical departments, nor could the other expenses requisite for extended scientific investigation be met with the means heretofore at the disposal of the Board; a few experiments upon the manufacture, preservation, and use of manures for the growth of crops, have, however, been inaugurated, while corresponding initiatory steps have been taken to experiment in other departments. It is most earnestly to be hoped that the recent appropriation of public lands by Congress to the state for agricultural purposes will afford means for the development of this department of the institution. The development of no other department would yield richer and more lasting results, or would confer more substantial benefit upon agricultural practice than this. It must not, however, be supposed that these results will manifest themselves at once, or that they will pay as experiments are being made: as well might the farmer expect to reap his crop the day he sows his grain. They will, however, ultimately, pay a thousand fold, as have the practical application of the sciences of electricity, heat and optics, in the present day, paid for the half century of apparently unpractical, purely scientific investigations that led to the results now obtained through them.

#### 4th. As a means of protecting the industrial interests.

Of the State, and most especially the agricultural interest, from the sale of bad or worthless or too high priced material (as manures, seeds, plants, and implements used in agricultural practice). The only efficient means of accomplishing this object is to diffuse a higher degree of intelligence, and a more extended scientific knowledge amongst farmers: for so long as they are unacquainted with the principles of agricultural science, there will be quacks and impostors, and ignorant empiricists, who will prevail on them to invest at least a little money in some new manure, seed, plants or other things, in the hope of realizing the large gain from it, that they are told will follow its use. Farmers have satisfactory means of testing agricultural implements, and they also can test seeds and plants with a good degree of satisfaction, but their methods of testing manures, chemical salts, guanoes, phosphates, poudrettes and other similar articles are very imperfect, and hence we find that the market is filled with worthless or very high priced manures, such as the farmer never would purchase, if he knew their composition and real value. A beginning has already been made towards making known the character of some of these manures; and although it is not expected that such work can be accomplished without opposition from parties interested in their sale, there is no doubt that before long all the bad manures will be driven from the market, and good ones, better and cheaper than the best and cheapest now sold, will take their place. In order to hasten this time farmers are requested and particularly urged to purchase no high priced artificial manures without having a legal guarantee with it, that it shall contain a specified amount of valuable matter, equal in value to what is paid for the manure.

#### Buildings.

The main college building is a stately and substantial edifice constructed of a silicious magnesian limestone of excellent quality for building purposes. It consists of a central part and two wings connected with the latter by outtains, the central parts and the wings facing on the same line, 234 feet long in front; and the central part resting on 54 feet of the front line, and extending back 130 feet; the two wings each resting on 42 feet of the front line, and extending back 81 feet. While the two curtains each occupy 48 feet on a line parallel to the front line, but ten feet back from it, the curtains extend back 56 feet. The building has five stories above a commodious basement. Each story has a large hall running from one end to the other, parallel with the front line, and extending through the middle of the curtains. From this hall, and at right angles with it, three halls extend back, one on the middle line of the central part, and one in each end wing; on each side of these halls, doors open into dormitories, recitation-rooms, museums, &c. The entire building embraces 165 dormitories, ten by eighteen square and nine to eleven feet high; a library room, twenty-four by forty-six; geological and mineralogical museum, twenty-four by forty-six; anatomical museum, twenty-six by thirty-six; museum of agricultural productions, twenty-four by twenty; chemical laboratory for beginners, in basement twenty-four by fifty-six; and two laboratories on the first story, each twenty by forty, for more advanced students; two lecture rooms, each twenty-six by thirty-four feet; four recitation rooms, each twenty by thirty-four feet; and several smaller rooms for apparatus for special scientific investigations, and for store rooms; also a large room eighty feet long and twenty-eight feet wide for a chapel, and two rooms, each fifty-six feet long and twenty wide, for society halls; and the entire back central part, forty-eight feet wide and eighty feet long, on first story, for kitchen and dining-room, and a room on the first story twenty by thirty-six feet, for an elementary or preparatory department, with an adjoining recitation-room, fifteen by twenty feet. The basement is mainly to be devoted to coal and hot-air furnaces, of which there will be sixteen of the largest size, from which heated air is conveyed in separate flues to every room in the building. All the rooms are also ventilated by flues extending to the top of the building from each room. The basement also contains the laboratory above noted, in addition to store-rooms, bake-house, and kitchen for culinary department, and three other laboratories for the rougher kinds of scientific work. The above, in addition to two reception parlors, and commodious apartments for one professor with family, and for the family of the culinary department, constitute the extent of internal arrangement of the buildings. For commodiousness, completeness of detail, and stability of construction these buildings are not equalled by the buildings of any Agricultural College in the world.