

THE MILLER MANUAL LABOR SCHOOL OF ALBEMARLE, VA.

The traveler journeying west on the Chesapeake and Ohio R.R., after passing through a rather desolate country, begins to note signs of improvement in the scenery. Gradually the pine trees grow fewer, and soon a lovely country appears. Monticello, on the right hand, its eminence crowned by the home of Jefferson, is passed. A few miles more, and Charlottesville, the county seat of Albemarle County, appears. A mile beyond it is the University of Virginia, of which Jefferson and Madison in their day were rectors. On this railroad, and in Albemarle County, is situated Crozet, five and a half miles from which is the Miller Manual Labor School.

It was founded by Samuel Miller, a native of Albemarle County, Va. He was born June 30, 1792. He received a common school education. After a few years passed in teaching, he engaged in mercantile business in Lynchburg, Va., and was so successful that in the course of a long life he accumulated a considerable fortune. His charities and gifts during his life were very great. He was a benefactor of the Lynchburg Orphan Asylum and the University of Virginia. To the latter institution he donated \$100,000. But his greatest bequest was devoted to the establishment of a school for poor children of his native county.

On the 1st day of April, 1859, he signed his will, leaving in it a large legacy to be devoted to this end. On March 27, 1867, he died, and was buried in the grounds of the Lynchburg Orphan Asylum, where a monument was erected to the memory of the asylum's friend. Years of lawsuits were devoted to contesting the will, but at last a settlement was reached.

An act was passed by the Virginia Legislature, and approved February 24, 1874, establishing the school, and Mr. N. M. Page, of Batesville, who had been sole executor of the will, then turned over to the Board of Education of Virginia more than one million of dollars to be applied to the school.

Our illustrations show some of the school buildings and interiors, and give an idea of the size and extent of the institution. A main building, that can accommodate 100 students, was first erected, at a cost of \$100,000. To this two wings were successively added, increasing the cost by \$50,000. Other buildings were gradually erected around this nucleus, additional land was purchased, and machinery bought, until to-day Albemarle County possesses one of the great technical schools of the United States, and one in which the modern feature of manual training holds a most prominent place. The buildings stand in the midst of an estate of nearly one thousand acres, held in fee simple by the trustees.

The object of the school is to afford a thorough education, literary and manual, to orphans and destitute children of Albemarle County. To this seemingly limited scope the trust fund, amounting to \$1,276,438.49 in bonds and securities, is devoted. The students are selected by the district school trustees of the different school districts of the county. The course of studies includes a primary, an intermediate, and an academic division, covering seven years. All the ordinary branches are taught to the students, including languages and science. But the manual training is the distinguishing feature.

Every student, before receiving the diploma of the school, has to work for three years in the shops, unless a satisfactory equivalent can be established. At the age of 15 their work begins, if their advancement in general studies is sufficient. The first year is devoted to wood work. Carpentry, turning and carving, the preparation of wood by seasoning, gluing, veneering, the care of woodworking machinery, and the preparation of wood filling, all come in this department. The first branches of woodworking fill the first year's time in the shop. The final work in wood is done later. One of the illustrations, from a photograph of the interior of this shop, shows well how complete is the equipment of the department.

In the second year, iron work and technical drawing are taught. Two views are given of the iron shop. The excellent character of the machines is well shown in them. The instruction proceeds from chipping and filing up through screw machine work, drilling, speed lathe and engine lathe work, to planing and blacksmithing.

Sensibly enough, blacksmithing is named last, as it yields to few mechanical operations in the element of manual skill applicable to it. This course runs into and is prolonged into the third year. The making and tempering of all the tools is included. Steam practice, brass work, finishing work in wood, and technical drawing are also included in the third year.

Steam is supplied by four forty horse power boilers. The boiler house adjoins the work shop. There the practice in steam working is acquired. The two buildings are shown in the cut. A 25 horse power Corliss engine, built by Harris, shown also among our illustrations, is used to drive the machinery. An Edison 400 light electric plant supplies light for the buildings.

Besides the branches described, others are included. Printing and telegraphy are taught as practically as

are the other branches. The catalogue of the school is printed by the students, and is a most creditable specimen of typography. Surveying, electrical and civil engineering, agriculture, and horticulture also come within the curriculum. The agricultural department, it is hoped, will soon be as well equipped as the mechanical one.

The steam laundry, a building in which some of the features of the Old Dominion architecture can be traced, is also shown among the illustrations. The chapel is seen in the center of the page, a plain yet impressive room. Here services by clergymen of different denominations are delivered, the denomination changing from Sunday to Sunday. Music and congregational singing are elements. A library opened daily for the drawing out of books is also provided.

Every second week, evening entertainments are held in the parlor, in which pupils and officers of the school with their families participate. These give a home atmosphere to the place, and tend to create a feeling of friendship between teacher and pupil.

Recently a girls' school has been started, but is separated from the male division. Manual training is a part of the course in it also.

The growth of this school, with its extraordinary endowment, one of the largest in the United States, has been rapid. It started with thirty-three students on the roll in the term of 1878-79. Now, in addition to the pupils in the girls' department, still limited in numbers, some two hundred students are in attendance.

The restrictions as to the appointing of students seem almost a subject of regret. Albemarle County has not a single large city in it; its entire population (32,618, census of 1880) is about half that of New Haven. Yet the benefits of an endowment large enough to be the basis for one of the great schools of the world are confined to this small region.

By it Virginia is awarded the distinction of being a leader in the educational field. In view of this great bequest, added to his other gifts, Samuel Miller is justly named Virginia's greatest benefactor.

What a Western Farmer Saw in the East.

A Western farmer, who lately took a trip East, writes as follows to the *Country Gentleman*:

The first thing to impress me when going from the West to the East is the economy of land in the East. In the West, and even in Illinois, we give everything an abundance of space in which to grow. We often have, for example, the space of a rod between the crop and the fence. If the crop wants to spread itself, we propose to gratify it without straining the fence. The great fertility of our Western land may make this necessary, you know. Our orchard trees are planted wide apart. East they seem to be crowded against the buildings or against the fences. Many more ornamental trees have been planted in Illinois than in New York. Is this because land is so valuable in New York, or because our bare prairies make us love trees the more? But we might well learn of our Eastern brethren in the economy of land.

In one way, however, the Eastern farmers are wasteful of land: they make the fences as crooked as the ways of a politician—to suit some slight conformation of the ground, to avoid passing over a small brook, or what in some cases appeared to me could be only a desire to make the fence as crooked as possible. Now, geometry demonstrates that "a straight line is the shortest distance between two points." It would economize both fence and land to make the fences straight; and the fields would be easier of cultivation. Cross fences, at least, could be straightened. Where the boundaries of farms are crooked lines, why not cut off a rod here and a rod there, and make the boundary line straight? For that matter, while we are speaking of economy in fencing, why not have no fences, as in the West? The old common law was right; a man should fence his own stock in, and not all the world's out; and if this should now prevail, one-fifth of the fencing we now have would answer, and we would not at all be inconvenienced, either.

Shall I offend the pride of my Eastern readers if I say that Illinois has better farm dwellings than New York or Pennsylvania? It is true. Compare the best parts of the States, and we can beat you on houses. But you Easterners beat us on barns; and you beat us further than we beat you on houses. In barns and all outbuildings, you are far ahead of Illinois—of course, further ahead of Nebraska or Kansas. I like to look at the barns in the best part of New York or Pennsylvania, they are so large and substantial and neat. I believe the barns are neater and better kept than the dwellings. Not long since I visited an Illinois farmer who had his own waterworks and gasworks, having water and gas in all parts of his large and very handsome four-story brick and stone dwelling. His barns were large; but they were of boards, had never known paint, and there was litter and manure about them. I could not help but contrast them with the neat Eastern barns, in which I could see the cattle eating. Think of us, or a Nebraskan or a Kansan, putting cattle in a stable in summer! It would pay a Western farmer for the trip to go East and study only barns and sta-

bles. He would then realize how much feed he wastes, how much he loses by exposing his animals, and how much manure he might get on his land.

In the West much more farm machinery is used than in the East. It causes a Westerner to laugh to see small grain being cut with a "dropper" or a self-raking reaper; and he cannot refrain from laughing heartily when he sees grain being cut with a cradle. I do not think that one Nebraskan in a thousand would cut grain with a cradle; he would lose the grain first. Nothing short of a self-binder will answer; and then we put on five horses, and cut and bind twenty acres a day. Six years ago I cut 147 acres in one week, and didn't work in the dark or on Sunday either. True, I used ten horses, two sets of five, but that was because the ground was so soft I would mire down if I didn't drive fast, and several times did it anyhow.

We don't cover corn with a hoe. We plant from twenty to thirty acres a day with a self-dropping two-horse planter. We raise the hay on the wagon with horse power (but pile the hay out of doors, sad to say); ride when we plow or harrow, or plant or sow, or reap or bind; and thrash by steam. In great part this is because of our smooth, level land, free from stones and stumps—but in part because we are more enterprising. (Fact.) The Eastern farmers are more wedded to old ways. They look at a dollar longer before they spend it for some improvement, and likely put it back in their pocket when they have finished looking at it. Take the matter of tile draining, for illustration. When Ohio farmers found that it paid to tile-drain, they put down tile liberally. Now the craze has struck Illinois, and Illinois farmers are planting tile as they would corn.

We have found it cheaper to make the wind pump our water than to do it ourselves; and the wind is doing a big lot of work of that sort. Get across the Missouri River, and a well without a wind pump above it is a curiosity. The wind kicks over the traces sometimes, and distributes houses and cattle around in a very annoying manner; but generally it works well and boards itself. My Eastern readers may claim all the credit for Western enterprise by saying that Westerners are emigrants, or descendants of emigrants, from the East. This is about true. The man that pulls up stakes in the East and goes out to Kansas or Nebraska must have considerable enterprise and go-ahead-iveness. And this does more than crop out in his new home—it expands.

I find that a great many Eastern people fancy that we raise mostly scrub cattle in the West. A trip West would change their notion. One of the surprises to me when I made my Eastern trip was that the cattle in New York were no better than the cattle in Illinois. I expected to find them better. Taken as a whole, New York has better dairy cattle than we, though Illinois has as good dairy cattle as any. In beef cattle we are ahead of the East—further ahead than they are of us in dairy cattle. In the West the cattle are not quite so good as in this middle territory; but there the scarcity of cattle is more apparent than the poor quality. And this is true of all stock. Even the ranchmen are now using full-blood males, some ranch owners buying Hereford, or Short-Horn, or Polled-Angus bulls by the hundred. You care for your farm animals far better East than the Westerners do—better than we do. This is not because of our ignorance or cruelty, but because many in the central part, and nearly all in the West, are paying for their land yet, and good barns and stables will come as soon as we can get to them. But observation, and especially conversation with those farmers who get on the trains, convinces me that raising scrubs can be set down against the East rather than against the middle section, or even the West.

We farmers should travel more. The Westerner can learn much of the Easterner, and the Easterner can learn just as much of the Westerner. The Westerner will be impressed that the *forte* of the Easterner is to save; the Easterner will think that the *forte* of the Westerner is to make. If the enterprise of the one could be combined with the economy of the other, both would be richer. If the Westerner goes East expecting to find every farmer highly intelligent, as I did, he will be fooled. If the Easterner goes West expecting to find every person ignorant, he will be worse fooled. No State in the Union can show more college graduates to the square inch than Kansas. There is more planting in the moon in the East than in the West, and more coins put away in socks; but in the West we are apt to spread our planting over eighty acres of earth when it should be only forty, and to buy land when we have nothing in our socks but holes. JOHN M. STAHL.

Quincy, Ill.

In Rochester, N. Y., on the 20th of November, 750 out of the 950 customers of the Bell telephone declined to use the instruments any longer, on account of the exorbitant charges; and they are now casting about for instruments that be supplied at cheaper rates. Here is a good opening for the House telephone, in which is found the "undulatory current" of the Bell system. The original patent of House has expired, and is free to the public.