laden with hay or straw, may enter at either gable, deposit the load to the hay below, pass on, and make their egress at the other end. Such a location has enabled them to extend a cellar its whole length for the reception of the manures, both solid and liquid, which are kept from filtration or otherwise escaping downwards, by a plank floor laid upon a stratum of clay, wrought as a bed of mortar. The descent of the ground upon the back side of the barn renders ingress and egress to and from the cellar convenient and easy for carrying food and manure. The cows will be tethered all upon the south side of the barn, and in the continuous longitudinal stable sixteen feet in width, with walls plastered with lime mortar and leaving a wall behind the gutters of four feet in width, and a corridor of passage between the cribs and rows upon the North side, which now preserves the warmth of the barn throughout, sufficiently wide for a horse and cart to pass, which is often convenient when feeding with green fodder.

The scaffolds above the cows are the best depository for litter, which is let down through a trap door in the rear of the cows, and also which serves as a receptacle for fodder, serve as a place for a meal, grain, and also for a hired man's bed. All these arrangements render it perhaps the most convenient, and is undoubtedly the most expensive barn in America. Its height to the eaves upon the back side is thirty-four feet, studding eight feet, (including sumbers,) and scaffolds six-teen feet. Flooring joists frames fourteen feet below the eaves.

INDIAN SUBSTITUTES FOR RUSSIAN HEMP.—At the last meeting of the Society of Arts Dr. Royle read a paper on Indian Tissues for textile fabrics, or for rope and paper making. He stated that the white fibred plants, such as the bowstring hemp, the aloe, the pineapple, and, above all, the plantain, we had boundless resources of material not only for paper making, but for cordage, which would rival Manila hemp, or the American aloe which hangs over broad rivers. The vakum of these plants might be converted into paper, and the fibres into fabrics of different qualities, and, though they might not be fitted for making knots, they would yet make ropes which were capable of bearing considerable strains. Among the miraceous and leguminous plants, or those among which the brown hemp and sunn of India were found, with the aloe among the liliaceous, he had carried out experiments, and the plants could be grown cheaply and their fibres separated efficiently. If we could use fibres possessed of the strength of Russian or of Polish hemp, we should in this property bring in the aid of nature, that in the various nettles which covered the fourth of these islands, and in Russia and the Sutlej. One of the latter, the rheea fibre, he felt assured would not only undersell every other fibre, but, in point of strength, would take a position second to none of all the fibres at present imported. Some of this fibre had been made into a 5 inch rope, and had been tried at Messrs. Huddart's rope manufactory, where it was found that each square inch made from the wild rheea fibre in the first experiment 844 lbs.; in the second experiment 894 lbs, and that from the rheea fibre 901 lbs; while the average strength of rope made with the best hemp, and after numerous experiments from the year 1803 to 1808, was 805 lbs. per square inch. In December last some experiments were made at the East India Company's military stores, with fibres in equal weights and of equal lengths. The weight each fibre broke with was ascertained to be as follows: St. Petersburg hemp, 160 lbs; Jubbulpore hemp, 210 lbs; Cuckoonat fibre, (common all over India,) 190 lbs; China grass, 250 lbs; rheea fibre, 320 lbs; wild Rheea from Assam, 343 lbs; and Kotu Kangra hemp, no breakage at 400 lbs. This hemp was the *cannabis sativa* of botanists and was cultivated in every part of India on account of the intoxicating property of its leaves. Dr. Royle stated, in conclusion, that the Court of Directors had ordered 20 tons of the rheea fibres, as well as of the Himalayan hemps, to be sent here yearly for the purpose of having them tried. A vast number of specimens of the different fibres and of the articles manufactured from them have been left at the Society of Arts for a few days for inspection.

WHAT INDUSTRY AND DETERMINATION CAN DO.

Sirs:—Having had some experience in back-woods life, perhaps a sketch of my progress on a new farm may interest some who will or ought to commence for themselves. My father was a farmer and I was brought up to the same business. Seven years since, I began to look round for a piece of land on which I might settle. Lands were high; the old farmers had got possession of all; and I soon saw there was no chance for me round home. I knew there was plenty of land further west, and I determined to have some of it. Consequently I moved to Pa., and bought 80 acres of land, for which I paid $5 per acre, being all the means I had in the world, and that I had saved while working at low wages by the month. I immediately began to carve a home for myself from the heavy timber, on which not a blow had been struck. I chopped and cleared, and felled, and solled; in the meantime arranging my fields, buildings, and orchards to my taste, with a view to profit and convenience. The forest soon began to retreat before me, and I saw with delight my pleasant fields taking the place of what hitherto had been a wilderness. I have not eaten the bread of idleness, neither have I broken down and impaired my constitution. I have now got through clearing, having sixty acres of neat improvement, with a little over three miles of heavy rail fence, with gates or bars wherever I wish to pass. My buildings are a log house in which I still live; a small corn house, with a hog-pen attached; a good barn, 20 by 40 feet, well finished; and a shed 16 by 36 feet, upon all which I have an insurance of $800. My orchard, which has occupied more attention than any other branch, consists of 100 apple trees, all of which are choice kinds of grafted fruit, 20 peach trees, 10 cherries, 5 pears, 5 quinces, and a good lot of currants. Last fall I gathered about 80 bushels of fine apples, 40 bushels of peaches, and a quantity of other fruits. For stock, I have one span of horses worth $320; one colt 2 years old; 2 colts 1 year old; 1 yoke of oxen—a pair of old veterans that have stood by me through the seige of clearing up my farm, and to which I am now giving a little bread and butter, before turning them over to the butcher; 4 cows; 60 sheep, that are a No. 1 for this part of the country; 1 sow, and pigs that are about right. For my place I am offered $35 per acre. I have not written this by way of boasting, but simply to show that clearing up a new farm is not, after all, so hard a task as many imagine, and to induce such of my young friends as have not farms to go and do likewise.

W. GREEN.

—*Detroit Farmers' Companion.*

SCARE CROWS.

Crows have become so numerous here of late that they have done much damage by pulling up young corn. For two or three years they have been so troublesome that many farmers have been obliged to adopt some means to prevent their depredations. Scare crows have had to be used, (for the varmints don't like to be shot,) and I think my neighbors have been using the very best kind. It is probably not a new invention, but it was new to me, and is far more effectual than the old Connecticut *man of straw* that used to frighten children more than it did the crows. The plan is simply this: set some stakes six or seven feet long, on the outer edge of the field, and as far apart as a line can be drawn from one to another, without sagging more than a foot on two; then pass a line of wool twine, or bass or elm bark, from one stake to the other; and the job is done. Probably some small strips or pieces of boards nailed to the fence would answer in place of stakes. It is not necessary to have a continuous line on all sides of the field, but it is well to place some detached strips in the interior, especially if the field is large, on the least or that part nearest the place from whence the birds come. I had occasion to try the above plan last season, which I did by making some 50 rods of bark line in a field of about five acres. The birds, after one view of what they supposed to be a trap, retired, and were not seen about that field again during the season