

RAILROAD SURVEYS.—The Board of Internal Improvements has made its Report to the Legislature, covering the Reports of Mr. Rawle, of his Surveys of the Central and Yadkin Railroads, which we will take an opportunity hereafter of presenting to our readers. We confess ourselves disappointed at the result which Mr. R. has come to in his estimation of the expense of constructing a Railroad between this City and Beaufort. The Citizens of Raleigh have just completed an Experimental Railway from the city to a Stone Quarry in the vicinity, which will not cost more than \$2,500 a mile, and we had believed that the country through which the Central Road would pass is fully as favorable for such a purpose as that between this city and the Stone Quarry, yet Mr. R.'s estimate is upwards of \$5,000 a mile. The expense of constructing the proposed Yadkin Railroad is estimated at between 8 and 9,000 a mile. And we presume, had Mr. R. continued his Survey of the Central Road westward, the estimate would have been still higher.

We fear that if the Central Railroad cannot be accomplished at a much less sum than Mr. Rawle's estimate, it will not, at present, be effected.

Would it not, in the mean time, be desirable, if a sufficient subscription can be obtained for the purpose, to continue our Experimental Railroad to some point on Neuse River, from whence good boat navigation could be had at most seasons of the year? The Road thus made might hereafter form a part of the Central Road.—*Raleigh, N. C. Jan. 4, 1833.*

ST. HELEN'S AND RUNCORN GAP RAILWAY.—On Wednesday last a train of coal wagons started from the Broad Oak Collieries, at the northern extremity of the St. Helen's and Runcorn Gap Railway, and passed along the line to the docks constructing at Runcorn Gap, and were there discharged into a vessel, which left the docks the following tide. Although the wagons travelled the extreme length of the line, it is not considered as a general opening, (which, however, will very shortly take place,) but resulted in a wager between a coal proprietor and the resident engineer of the Sankey Canal,—the former gentleman persisting, that it would be possible to convey a vessel load of coals to the Mersey by his railway before the 1st of December. It is needless to say, that this was accomplished. The train was accompanied by Peter Greenall, Esq. the chairman of the company, Thomas Kidd, Esq. of Widnes, and several other directors of the line, and performed the journey under the direction of Mr. George Thornton, the resident engineer of the railway and docks. These gentlemen were accompanied by the highly respectable contractors for the execution of the line, Messrs. Nowell, Thornton, and Seed, together with a number of the workmen and inhabitants of the neighborhood of the railway.—[*Liverpool paper.*]

WOODWORTH'S PATENT PLANING MACHINE.—A Machine patented under this title is now in operation at the Furnace of Messrs. Stickney & Yerrington, in this village. It is designed for planing, tonguing, and grooving, floor-plank, ceiling, &c. It performs the labor in a workmanlike manner, and what is unquestionably of much importance, brings the plank to an equal thickness and width. It will finish 18 feet of plank per minute, thus accomplishing an amount of labor equal to 35 men, during ordinary working hours, at an expense of about one-sixth the usual rate. It is far from being complicated in its construction, and is consequently not liable to get out of repair. Three knives are placed upon a cylinder, which revolves about 2300 times per minute, by which the planing is effected, and tonguing and grooving by a process somewhat similar. Should the location of the machine make it necessary to propel it by steam power, the shavings would evidently furnish a large proportion of the necessary fuel. The invention seems to be one

of practical utility, and cannot fail of being an important acquisition, wherever building to any considerable amount is in progress.—[*Lockport Balance.*]

AGRICULTURE, &c.

[From the New-York Farmer.]

Suggestions relative to Farmers' Work for February. By the Editor.

Supposing the farmer to have, agreeably to our suggestions of last month, the general plan of his operations well digested and clearly marked out, it will now be important to give his attention to the particulars.

Zeal and Enthusiasm.—The first requisite, after having matured a system of management with great judgment and caution, is to enter upon its execution with a zeal bordering on enthusiasm. We see what zeal can accomplish in politics, religion, science, literature, and other matters. In farming its power is equally potent.

Perseverance.—Next to zeal, untiring perseverance is indispensable in accomplishing the objects of the farmer. The changes which he can produce on his farm require time—some of them successive series of years. He consequently should consider perseverance an important trait of his character.

Manure.—No attention should be spared in preserving from waste all the manure made on the premises. If the stable have inclined floors to carry off the urine, there should be a drain to convey it into a cistern, in some part of the yard where it will not be lost in percolating through a porous bottom. If the farmer would calculate the quantity of water that falls on the surface of a barn yard, and then take a bushel of fresh horse droppings, weigh them, put them in a tub of water for a few days, strain the contents of the tub through a coarse cloth, apply fresh water and repeat the operation a few times, and dry them to about the same state as before, and then measure and weigh them, he may form some estimate of the loss he sustains by letting all the washings of his yard be wasted. It is not sufficient to imagine this experiment to be done, but he must actually perform it.

Cattle kept Warm.—It cannot be expected that live stock, particularly horses and cattle, will thrive well while they are exposed to the extremes, and to the violent storms of winter. Milch cows, kept in dry, comfortable stables, will continue to give milk longer, and in greater quantities. When exposed, their spirits and constitutions are affected—predisposing them to disease. Should there be a late spring, and fodder become scarce, the horses are less fit for the hard labor of spring, and the cows have feeble calves, and afford them but scanty nourishment. It is not well to keep them in apartments very close. They must have pure air, and be comfortable.

Sheep and Lambs.—During this month the sheep will begin to drop their lambs. The utmost care and attention are requisite to preserve the lambs. It is said more than half of the human race die before they are two years old; and it is very probable that half of the sheep in the United States die before they see two weeks. This mortality, in both cases, is probably owing to defects in the constitution, produced by inattention to the dictates and requirements of nature, rather than as the results of physical laws. On this subject we refer our readers to page 8 of our preceding number.

Eggs.—A farmer's wife, who has leisure in the winter, could not, perhaps, turn her attention to a more profitable object than eggs. By feeding fifty hens with the best food to make them lay, fifty cents a day might be realized during the months of January, February, and March—amounting to the sum of \$45. Eggs in the winter command one and a half to two cents each, in the vicinity of large towns or cities.

Cutting Timber.—We often hear great diversity of opinion expressed among farmers on the proper time of cutting trees, both for fuel and for building timber. There certainly is a very great difference, for instance, in oak. Some will burn much better than others, and some are far more durable than others, even when cut in the same season. The study of phytology will undoubtedly throw some light on the subject. It is very clear that open woods or single trees, freely exposed to sun, air, and winds, are very different in respect to the solidity of the particles and to the quantity of moisture or sap contained in the sap vessels or pores, from those growing in moist soils, and so close as to exclude the sun. If to these circumstances we add that of the difference in soils producing either a quick or a slow growth, the time of felling timber will not be considered as the only cause affecting the qualities of wood.

Ploughing.—Should the frost be out of the ground any time during this month, it would be well to break up some kinds of soils—well for those who apprehend being hurried in their spring ploughing.

Grass Lands.—Many farmers turn their cattle into their meadows while the ground is soft. Scarcely any day in winter is meadow land in a state not be injured by their feet. When the ground is thawed to some depth, they make deep tracks, and when only on the surface to an inch or two, the injury is equally as great by the slipping and sliding of the cattle.

Clover Seed.—Those who omit to sow their clover with their wheat or rye in the fall, would do well to attend to it about the last of this month, when the ground is soft or covered with snow. If a sufficient quantity was not sown at the time of sowing the grain, the deficiency can be made up. Old meadows that have but little or no clover, may have some seeds sown, particularly if they are to be scarified, and to receive a top dressing of manure.

Draining.—There are some situations where it is less tedious to cut drains when the ground is frozen than in any other season of the year. Where there is but little or no water unfrozen, the digging, or rather caking, is not as difficult as one would apprehend.

Bees.—It would be well to inspect the hives, and supply any deficiency of food that may exist.

Farming Implements.—These should be examined, the necessary repairs made, and what may be wanting supplied.

Fattening Cattle.—A practical, scientific farmer informs us that cattle fed on clean, raw potatoes and good English hay, will fatten with great rapidity if they are kept comfortable and warm. The potatoes and dry hay reciprocally and alternately sharpen the appetite for each other.

Mental Improvements.—The winter evenings and other leisure time should be diligently employed in mental exercises, particularly relating to rural matters.

SCUPPERNONG GRAPE.—This grape is said not to succeed by cuttings, but by layers and graftings. Mr. Sidney Wells, of Brinkleyville, N. C. observes, in the American Farmer, that "about two years since, I visited Capt. Burlingham, near Louisburg, N. C. having understood he had cultivated the Scuppernong with great success. He showed me twelve vines, extending over a quarter of an acre, suspended on lath or scantling, over frames, supported by posts about eight feet high, from which the year preceding he had five hundred gallons of wine, (worth as many dollars,) besides having abundance of fruit from the same vines for himself and neighbors. Some barrels he had made with, and some without spirits. One barrel saved without brandy, made of first gleanings, took twenty-one pounds of sugar to make the must suspend an egg on its side. But a barrel made of later gleanings took but seven pounds of sugar. His method of gleanings the grapes