NEW YORK, JANUARY 15, 1848

Weaving.

The art of Weaving is as old as history itself. It is not possible to tell where it was invented, nor at what period. In Sacred Scripture we have accounts of fine garments of needle work, and at the very commencement of the Jewish empire, the garments of Babylon must have been very fine. When South America was discovered, the inhabitants were in possession of beautiful garments of cotton cloth, shining with the most brilliant colors. In North America, at least among the savage tribes of the United States and Canada, no traces have been found that they possessed a knowledge of the art of weaving. Among all the inhabitants of Asia, the art is known, and for all the experience and advancement in the art of weaving made by the civilized nations of Europe and our own nation, still in regard to quality singly, the semi civilized Asians far surpass us. In England, cotton has has been spun so fine that it would require a thread of 490 miles in length to weigh one pound—but the Hindoo girl, by her hands has made a thread which would require to extend 1000 miles to make a pound ; and the muslins of her manufacture, when spread on the ground and covered with dew are no longer visible. The shawls of Cashmere are unrivalled still and crapes of Canton are not yet surpassed in beauty, and some of the turbans of the Turkish and Persian chiefs are so fine that the threads cannot be seen. All the orientals manufacture by the hand, and in Europe no machinery can produce such fine webs as those which come out of the hand loom.

The finest and most beautiful shawls and scarfs sre manufactured in Paisley, Scotland.—Like the inhabitants of Lyons in France, the Paisley weavers meet often in clubs and discuss the beauty or defectiveness of new patterns. From this custom they have been able to keep in advance of all the British weavers in fine patterns.

The first fine linen thread made in Scotland, was in Paisley, by a young girl named Christiana Shaw, who figured conspicuously in the annals of Scottish witchcraft, about the period that New England was disturbed by this mania. Spitalfields and Leeds in England, are celebrated for weaving, the former for silk, the latter for woollen goods. Lyons in France, weaves the finest silk and satin fabrics in the world ; but all the fine work is done by the hand loom. America as yet, manufactures no very fine goods, especially cotton fabrics. As for linen, we know nothing about its manufacture, although there are thousands of Irish men and women who might, were they encouraged, make surely as good and as fine linen here as they made at home, and which is not surpassed by that of any other nation if equalled. The art of linen weaving was introduced into Ireland and Scotland by the Huguenots, from France, and in Dunfermline, in Scotland, and near Newton Stewart, in Ireland, is yet yet made by the descendants of the same people, the finest and greatest variety of linen fabrics. The United States have made greater advancement in the art of woollen weaving than in that of any other fabric, and from specimens which were exhibited at the late Fair of the American Institute, we bope soon to see our manufactures rivaling in fine goods those manufactured abroad, as we now manufacture coarse goods, that are better than those of any other nation.

Water Ram.

A correspondent writes us that there is a Water Ram at Greystoke Castle and another at Gilsland Wells, England, where the water is raised over two hundred feet high, and any person can soon be furnished with one by him this country, with full directions for fitting up.

Action of Sulphur upon Iron.

But few parties will be found to dispute the fact, that the action of sulpnur upon iron is injurious to the metal. When coal contains much sulphur, or pirites, sin.ple coking will not separate the whole of it A portion of sulphur, certainly. is dissipated by the partial burning of the coal, but enough remains to have an injurious effect upon iron smelted or worked with such coke. In the treatment of ores and fuel, for the separation of sulphur, the use of steam at a high temperature, has been proposed, by heating the steam, as air is heated for hot blast, previously to passing it through the materials. The grate to be set in mason work, so as to form a close ash pit, and an arch turned over the grate from side to side, leaving the two ends open. A fan-blast is required to blow into the ash-pit; but no blast is to be used over the fire, and a requisite supply of water for the grate. At one end the coal is thrown in; and at the other it is withdrawn, when sufficiently ignited, and acted upon by the vapor. Below the withdrawing end, a close deep kiln ts to be built, having an opening at the bottom, with a close iron door to fit. About half way up a horizontal opening or slit—the length of one side of the kiln—is to be left for the purpose of introducing scaffolding bars; this opening to be provided with an air-tight cover. Different portions of coal, after being calcined are to be drawn from the grate into this kiln until it is full. The scaffolding bars are then to be introduced, the door at bottom opened, and the lower half of the coke drawn out. The door at the bottom is then closed again, the scaffolding bars removed, that hole closed, the upper half of the coke dropping down, and the operation of calcining resumed, until the kiln is again filled.

Our Advertising Page.

We request the attention of our readers to our advertising columns. There is the place for informatien regarding machinery. Those who desire to let the world know something about their machines, will recollect that the Scientific American is the best paper in the world to advertise patent machines and machinery of every description. Those who want to buy a good article of machinery, and embrace good offers, for carrying on or engaging in business, have just to consult our advertising page. for the right kind of information.

Cotton from South Africa.

From Port Natal, South Africa, favorable accounts have been received in England, of the soil and climate of that country for the growth of good cotton. It is said that the trees of six years old are as good there as those of three years. In this respect, if it be so, they have an advantage over America. but we doubt if any part of the whole world will will ever be able to compete with America in the price of cotton. The enterprise, the ingenuity and energy of our people will always bear down the scale in their favor, and the excitement lately generated in the South for cotton manufacturing, will soon develope itself, we think, in monopolizing the entire cotton trade of the world.

File Manufactory.

We have been informed that machinery is now in operation at Andover, Mass., for manufacturing files upon a large scale.

The piece of steel to be cut is placed in a socket, and then carried under a sort hammer chisel which moves with a motion similar to that of a toggle joint reversed and which not only cuts the teeth, but at the same time turns up the edges so as to make them rough, like the teeth of the best English files.—The apparatus is very simple, but is said to work well

Slave Steamers.

Three large Steamers; says the N. Y. Evangelist with engines from two hundred to three hundred horse power, have been fitted at Bahia, S. A. for the slave trade, One of them has alrerdy arrived on the West Coast of Africa, where she embarked 900 slaves, and escaped the brig of war Sea Lark, by steaming away from them during a calm.

Ploughs for the South and West are manufactured in large quantities at Pittsburg, Pa.

Steam and Water Power.

The following opinions and statistics relative to the cost of steam and water power by a correspondent of the Louisville, Ky., Journal, should receive the careful attention of our manufacturing population, as it is one of great importance and becoming more and more so every year.

" I find from Dogget's Railroad Register, that the average cost on cotton and dry goods, between Boston and sixteen of the most important manufacturing towns that receive cotten through and send their manufactured goods for sale at that city is $2 70 cents per ton. This is about tbe average price of such freight by steamboat, between Louisville and points 300 miles distant.

" From the annual sheet of Lowell statistics published in January last, I make the following extracts :—

'An important undertaking, eventually to redound to the interest and wealth of the city is the building of the *new canal*. It is destined to give to most of the mills in the lower level a more regular supply of water, and, consequently, benefit those on the upper level. It is to be of the average width of 100 feet, and a depth of 15 feet. It will require in its construction a *rock* excavation of 150,000 yards, and an earth excavation of 110,000 yards, and a mass of masonry of 50,000 yards; the whole estimated at an expense of not less than $500,000.

'In the course of a few months will be in operation a mill built by the Hamilton company, to commence with 10,368 spindles and 260 looms ; but is of sufficient capacity to contain nearly 20,000 spindles and 400 looms. *The driving power for this will be a steam engine* of 160 horse power, which is being put in.'

" The same sheet gives a steam engine of 190 horse power as that used by the Prescott manufacturing company, which commenced operations in 1846. This company use 1200 tons of anthracite coal per annum. Here then is the second steam mill at Lowell ; the first must have been profitable.

" I remark in reference to this 'new canal,' that, if we add to its cost the further cost of the side canals to take the water to and from the mills, and the excavation for and building of water wheels, we have a capital sufficiently large to build on the Ohio river, and then fill with the most approved machinery, and then furnish with a fair working capital, five or six mills as large as those recently erected by Triplett & Barret, of Bon Harbor ; Strader, Fosdick & Harkness, of Cincinnati, and Kennedy, Childs & Co., of Pittsburg, Penn., all large mills."

Value of Steam in Manufacturing.

The Utica N. Y. Steam Woolen Factory, was incorporated in February, 1846, under the General Manufacturing Law, which has long been in existense in this state. In the spring of 1847 it commenced manufacturing woolen goods, since which period it has been in regular and successful operation. The Board of Directors. on the 16th of December last, after a full and stationary examination of the concerns of the Company, declared a dividend of ten per cent, payable to stockholders on the first day of February next—leaving a surplus profit of upwards of 25 per cent, on the capital stock paid up, subject to their future action.

The whole cost of the real estate, buildings machinery and fixtures of the Company, as nearly as can be ascertained, $88,044,60.—The whole of the machinery is now in full operation. and the cloth now manufactured daily, exceeds 450 yards of finished cloth.

Rewards.

Professor Mitchell, the distinguished astronomer of Cincinnati who has been recently lecturing in this city at the conclusion of his course, stated that his object in lecturing was to provide for himself and family. He has not received any salary from the Institution of Cincinnati, for six years, on account of the inablity of its officers to afford it

Price of Pork.

At Cincinnati, 7000 hogs have been sold, recently at $2,50 per hundred.—About 25,000 have been packed in that city during this season.

Working Men.

Dr. Channing urges upon. working men to study politics—to look into affairs of state—and to understand every thing connected with public affairs. This is excellent advice ; and it is particularly desirable in a country where working men have to participate in the election of those who are to make the laws by which the country is to be governed. "The time" (says he,) "thrown away by the mass of the people on rumours of the day, might, if better spent, give them a good acquaintance with the constitution, laws, history, and interest of their country, and thus establish them on those great principles by which particular measures are to be determined. In proportion as the people thus inform themselves, they will cease to be the tools of designing politicians." The theory of our government is, that all power is derived from the people ; but practically power is conferred by the leaders of parties, who, in the distribution of offices, always take care to supply themselves first. This is the result of workingmen neglecting to investigate for themselves, and being content to follow the dictation of demagogues.—Every man shauld make himself acquainted with "the constitution, laws, history, and interests of his country," and thus be enabled to exercise his own judgements on public affairs, and to act and to vote independantly. If such were the case, parties would act with more circumspection, and the country would be better governed.

Gun Cotton.

The officers of the Arsenal at Washington have been engaged in experimenting with gun cotton, testing its qualities as a substitute for gunpowder. The following is the substance of the most material part of their report :—

In consequence of the quickness and intensity of action of gun cotton when ignited, it cannot be used with safety in our present fire arms. By experiments, such as an accident of service, as that of inserting two charges into a musket, (which often occurs,) would cause the barrel to burst ; and, from the repeated bursting of pistols and other small arms with small charges, there is no doubt that the barrels of our small arms would be destroyed by a few rounds even with service charges

Novel Performance.

There is exhibiting in Broadway, this city, at the present moment a number of canary birds that have been trained to draw carriages wear cocked hats and coats, fire off small cannons, dance on the tight rope, stand on their heads, and perform various other feats, that display a capacity to learn and be trained which no one could imagine the feathered race possessed. As might be expected the performances are witnessed by hundreds of ladies and children daily.

Well, these are vain trophies of great patience and misspent time, and many will find a shilling to spend, in this manner but not one cent for the poor.

Scientific American---Bound Volumes.

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The back Nos. of the present volume may also be had upon application at the office.