



NEW YORK, NOVEMBER 25, 1848.

The Culture of Silk.

The United States is capable of raising silk as well as any other country whatever, especially Central Florida. We know one instance in which it was tried in Florida and was a failure, but we believe the fault was not in the climate nor country, but for want of a proper knowledge in the management of the business. There is a great quantity of silk raised at present in the United States, and we know that much is lost for want of proper knowledge in the treatment of the cocoons in destroying the chrysalides for reeling. The common method is to heat them in an oven and submit them to a process of baking, which is a very particular and nice operation. If the degree of heat in the oven is too great, the texture of the silk is destroyed, by the gum becoming softened and the threads made to stick together so that it is impossible to reel the silk from the cocoons. This mode of destroying the chrysalides has been fatal to the reeling of hundreds of bushels of cocoons raised in our country, and on the other hand if too little heat has been used, the evil is as great, for the chrysalides will not then be destroyed. In Italy, the common way is to gather up the cocoons as rapidly and carefully as possible, and suffocate the chrysalides by exposing the cocoons to the burning rays of the sun. This is a better plan than baking them in an oven. Steaming the cocoons to destroy the chrysalides has also been employed with very limited success certainly. It is a bad plan. We believe that there is another plan of destroying the chrysalides which has never been tried in this country to our knowledge, and which is known to but a very few people, but in our opinion is the best ever proposed. It is simply to submit the cocoons for reeling to carbonic acid gas in a close box. It will destroy the chrysalides, without affecting the gum of the silk, and therefore there will be no sticking of threads of the cocoons, as is now so often the case with those baked in ovens. We hope this hint will not be lost upon our people. By late accounts from Bermuda, we learn that the Governor of that Island is about to send to Milan for some families conversant with the silk manufacture; it being ascertained that the climate of Bermuda is well adapted to the silk worm and the culture of the multicaulis. It is said to be very difficult, if not impossible, to distinguish the Bermuda silk from the Milan. One gentleman at Bermuda, Mr. Vaughn, has a silk manufactory on the island, and this year raised multicaulis sufficient to have fed 1,000,000 silk worms.

This is a wise step and ought to excite some emulation among our Yankee friends. Our people have been led to regard the cotton and woolen manufacture as the only kinds worthy of extensive encouragement and protection.—We go for the encouragement of the silk manufacture likewise. Thousands upon thousands are expended every year upon foreign silks, and for want of proper attention to the raising of the silk worm, our farmers' daughters are indebted for their Sunday frocks to the silk cultivators of Italy, and the weavers of France, whereas they might shine in satin of their own manufacture, rivalling in richness that of the gaudiest belles of Broadway.

International Postage.

There has arisen no system so derogatory to modern civilization, as the reprisal postage arrangements which have been carried on during the last six months between the American and British Governments. It is sometimes amusing to see two stout burly boys snuffing the air and shaking their fists at one another, but it is foolishness itself to behold two grown up men—men esteemed for sense and wisdom, standing each at his own door like a frowning catamount spitting and snarling at one another. We intend the comparison we have institu-

ted, as a compliment to our own government and uncle John's, as they have caused us some trouble and expense and many of our subscribers likewise. We are glad to perceive however, that the two governments after blowing their noses at one another, have concluded to shake hands and strike an even bargain. It is rumoured that an equal postage arrangement for both countries is about to be consummated. Twenty-five cents here will carry a letter to any part of Britain. This is all very good, but what about newspapers? At present we have to pay 4 cents for every foreign exchange, and our subscribers in Canada, New Brunswick and Nova Scotia have to pay two cents U. S. postage on the Scientific American. We would have a far larger list of subscribers in Canada and the other British Provinces, than we now have, if the postage was less; and more Provincial papers would be taken in the States upon the same principle. And why should we not have a cheaper and a more equal international postage? We can see no reason why we should not. Cheap postage is a benefit to both people and governments, and it is surely neither wisdom nor policy in us nor our neighbors across the Atlantic and St. Lawrence to fetter the press in the Post Office. Upon a great number of international questions, there are wide differences of opinion, but we believe that upon the question of a *cheap postage* the hearts of the people of both countries, are like that of one man. The postage price of letters and newspapers, should be put down to the lowest point, the cheaper the postage the larger the mails and the greater the revenue. This is no vain theory, it is a sturdy demonstrated fact, and while we cannot but admire the legislation that reduces a nation's postage to the lowest point as a matter of policy and profit, it is certainly an anomaly to behold the same nation keep a high *international postage* for the same object. It affords a very correct explanation of that passage in the book of Job—

"Great men are not always wise."

Securing Patents.

We have on our table several letters from persons in the far West who are desirous to know whether or not we are accustomed to secure Patents for Inventors. One says: "I presume you act for Inventors in drawing up their Patent papers, and if so I should prefer you, above all others to do my business. Your intimate acquaintance with all the inventions and inventors throughout the country and your long experience in mechanical matters of all kinds, *must* give you a knowledge which few if any others in America possess." We would inform our correspondents and all others who are not already aware of the fact, that we *do* act for inventors in securing their Patents. We have greater facilities for attending to Patent Office matters than any other concern in the United States. But notwithstanding the great number of Patents we are constantly securing it must not be supposed that we hurry or slight them. Every invention receives in our hands, the utmost attention, and not until we are perfectly satisfied that *every thing* is right do we allow it to go from us. The slightest error in the preparation of the papers, such as the wrong insertion of a *single word*, is often sufficient to blast an invention. We repeat our caution to inventors: Be careful whom you employ to secure your Patents. Few know how to do it properly.

Patent Cases.

At the U. S. District Court held in Philadelphia, before Judge Kane, a trial for the infringement of Blanchard's Gun Stock Machine Patent vs Brown and others, was ended, we believe on last Saturday week, by the Jury being dismissed because they could not agree. This is to be regretted as the trial was both a tedious and expensive one to both parties.—We were informed that the Judge charged the Jury in reference to some articles published in the Scientific American. We know that inventors now look to the Scientific American as a source from whence to derive correct information, but we must in justice to Mr. Eldridge, of Philadelphia, state that the articles referred to on pages 30 and 38 this vol., by the Judge, were in our possession (before we could publish them) at least six weeks

before the trial commenced. Had we known that the trial was so near at hand, we would not have published them until it was over.—We wish to be impartial, and we wish to see the true inventor protected. We will be glad to publish the views of Mr. Blanchard's friends and we really wish that we could publish the evidence adduced at the late trial. We have been informed that Mr. A. Woolworth, of Hartford, Conn. was there and gave evidence, but it was proved that he did not employ the rotary cutter wheel until after Mr. Blanchard had applied it, and produced a different combination thereby." Whether the articles referred to influenced or divided the Jury or not, we cannot tell. What were Mr. Eldridge's motives in publishing them is not for us to divine.

There are quite a number of Patent lawsuits going on at present which we shall notice in due season.

The Principle of the Remington Bridge.

In our last number we gave an account of the heroic sufferings of an American inventor in England, regarding whose bridge some inquiries have since been made of us. The principle has been explained and published in some of our exchanges, as follows: The stringers on which the carriage way rests are laid down upon the principle "that a slender prismatic beam though requiring great force to tear it longitudinally, would, nevertheless, easily give way to a transverse force very much smaller. If suspended by its extremities and the force made to act at the centre, the rod would snap in the centre; but if one of the points of suspension were shifted, then it would snap near the other extremity. This circumstance is applied to the purpose of a permanent carriage way by the position of the scantlings or fulcra, on which the stringers rest, and the operation of which is to remove the tendency of the bridge to break in the centre, and throw that liability in the thicker portions, near the abutments, which are fully able to resist the strain. The stringers are constructed of any length by the process of scarfing. Now a beam in a horizontal position, fixed at one end and pressed down at the other, is liable to break off near the fixed end. Here, by the scarfing of the stringers, the central scarf unites the two portions, into which each stringer may be supposed to be divided, and resists at a long leverage its tendency to separate the fulcrum. A bridge on these principles was first constructed at the Surrey Gardens, and a large one subsequently on the estate of Earl Talbot, in Staffordshire.

This latter structure has a span of one hundred and fifty feet, and is capable of supporting enormous weights; yet the six stringers or beams which support the planks forming the floor of the bridge are but five inches square at each end, and gradually diminish in size, until at the centre they are only two and a quarter inches, their length being, as already intimated, one hundred and fifty feet. The stringers are formed of pieces of oak timber, each about twenty or twenty-five feet long, attached together by scarfing. The abutments consist of oak posts, six inches square, and fifteen feet long, and five feet in the ground, projecting outward at a considerable angle, and firmly clamped together with iron."

If this is the principle upon which Mr. Remington's Bridge is constructed, it is one long known and practiced in the United States, and although in some respects it may be novel in England, still it would attract no attention in Yankee land.—Ed.

To Inventors.

All who wish to interest capitalists or to find some one who will join them in bringing out their inventions, should have engravings of the same published in the Scientific American without delay. By the outlay of a small sum in this manner nothing is lost. Results of great importance are thus frequently obtained.

New Mexican Wool.

A large trade in wool is expected to be carried on between Corpus Christi and New Orleans. The wool is brought to the former place principally by Mexican traders from the neighborhood of Laredo, where there are large numbers of sheep, and wool growing business, pretty generally followed.

Bread made from Horse Chestnuts.

It is well known that horse chestnuts have much nutritive matter contained in them, but they contain a bitter oil which has prevented them hitherto from being used as an article of food. Recently however, a discovery has been made by Mr. Charles Flandin a Frenchman and described in the Paris National of the 18th Oct., by which in a very simple manner horse chestnuts can be converted into an article of food and thus render the beautiful and ornamental tree on which they grow not only a delight to the eye, but a support to the frame.

The process is described by the N. Y. Tribune of Tuesday last week, as translated for that paper, as follows. "Take off the skin of the horse chestnuts and grate the nuts into a pulp and mix with the same a small quantity of the carbonate of soda to a hundred pounds of pulp—mix these well together, kneading them into paste. Then take this paste and put it in a sieve and allow a stream of clean water to run upon it stirring it well at the same time until all has passed through the sieve into a tub. The water in the tub is then allowed to settle, then it will be found that a greenish matter is contained in the solution with the water while a fine white substance has fallen to the bottom." The greenish water is then to be carefully poured off and the fine white substance retained, which is the *farina*, a fine white agreeable tasted nutriment of the horse chestnut. A second washing does no harm, only the water must be cold, as it is a starch which is very soluble in hot water, while it is moderately so in cold.

The theory of this discovery is very plain to every person acquainted with chemistry and it is a wonder that the discovery was not made before, but like a great number of other important discoveries, the theory is plain after the result has been produced. The carbonate of soda being an alkali combines with the oil in the horse chestnut and forms a soap which is more soluble in water than the starch; therefore the soap passes away in the water while the starchy nutritious part of the chestnut is left behind. The discovery is a valuable one and can be extended to the treating of acorns in the same manner. Our forefathers, the old Anglos used to live on acorns in the forests of Albyn, and man has the anatomical construction of being more a nut and meal eating animal than a carnivorous one. We hold to the doctrine "that the greater variety of crops which are raised in a country, the less probability is there of a famine should a bad season, insects or storms prevail during the spring, summer, or autumn." Let us look to Ireland and her tens of thousands perishing because of the failure of the potato—the universal food of that land. Every farmer should raise a variety of crops, and he may be sure, that if one fail another may not. We have recommended more than once the cultivation of the chestnut. It is an excellent article of food, and when roasted with coffee beans confers upon the beverage a very fine flavor. In this discovery of Mr. Flandin, as the horse chestnut is somewhat prolific, we have the prospect at least, if the starch is but used only in the arts, to behold the nut devoted to a better purpose than merely school-boys whistles.

The Pocket Diary.

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