

ries with which it is falsely classed is, that it is not consumed by the man who buys it. If I buy a bottle of wine and drink it, it has pleased my palate, given me an hour of pleasant exhilaration, and it is gone. The money or the labor it cost is destroyed absolutely in procuring me that hour of pleasure. If I buy a silk dress for my wife the pleasure lasts a little longer, and, if she is a handsome woman, spreads a little further, but the dress wears out, and there is an end of it. But if I bring into the country a beautiful picture or a noble statue, I have brought something that will last for hundreds of years after I am dead, and will contribute to the higher pleasures of generations yet unborn. So far from destroying the labors of others for my personal and temporary gratification, I have paid for the enjoyment of thousands, and in so far am a public benefactor. We all recognize the public spirit of him who erects a fountain or gives a garden to the people, and doubtless we are not called upon to admire in the same way the generosity of him who puts a picture in his parlor. Doubtless he puts it there for his own pleasure. Yet, as far as the public is concerned, the benefit is but deferred. Be he as selfish as he may, he cannot keep it shut up forever; he will die, and the picture will live. Even in his lifetime many will see it, and a work of art truly belongs to him who enjoys it, not to him who owns it. Sooner or later it will change hands, it will be seen in public exhibitions, it will be sold, and the history of all great works of art is, that at last they become the property of the public, and are placed in museums for the pleasure of all. Luxuries are for the moment, but "a thing of beauty is a joy forever." The first quality in which a work of art differs from a luxury is its permanence; the second is its productiveness. It not only gives pleasure to thousands and for ages, but it gives much more than pleasure—it gives education. The history of art is the history of civilization. Art, in one form or another, is the great beautifier and ennobler of life, and a nation without art—without poetry or painting, architecture or sculpture or music—is a nation of barbarians, though it possess the steam-engine and electricity."

#### Tanning By Electricity.

The process of converting hides into leather, as now followed, consumes a space of time varying from six to twelve months. It also demands close attention and good management, as well as experience. Great care has to be exercised in the selection of material, else a lot of choice hides are found at the expiration of the tanning season to have deteriorated into second or even third quality leather. Tanners, and leather dealers generally, are accredited with being very careful and conservative in all their business methods.

With these facts in view it is not surprising that when it was reported from France that leather was being tanned by electricity, a American

tanners regarded the statement as a newspaper sensation. Twenty-four hours was considered pretty quick work for even electricity. It was not until the doubting Thomases had seen and felt that they believed. But now since tanning by this process seems an assured fact it is no longer regarded as a sort of transatlantic offset to our electric sugar refining. Every item that can be gleaned is thoroughly discussed and every source of information eagerly sought. That the earlier efforts in this direction were failures is true, but this was largely owing to a lack of electrical knowledge on the part of the inventors. They were unable to economically produce an effective current. But this in time was learned, as was also its most economical means of production. Only a uniform current will give good results.

The process as described by those who have seen it is a very simple one. The hides are placed in large cylinders, which revolve upon horizontal axles. The drum is filled with a decoction of tannin and closed. Provision is made for the passing of a current of electricity through the drum. The drum is kept slowly revolving until the process of tanning is completed. The length of time required varies with the nature of the hide. For the lighter skins, such as sheep and goat, which used to require from three to six months, by the electric process are tanned in twenty-four hours. The heavier hides, such as calf, ox, cow, or horse, require from seventy-two to ninety-six hours. By the old-fashioned bark process twelve months, or even more would have been taken.

The cost of production is greatly reduced by this method, for not only is the saving in time, but in labor. The actual cost of working is reduced over 50 per cent. By the bark process the cost of tanning is from seven to eight cents per pound of dry leather, as against that of three to four cents by the electric methods. And again, where a force of 50 men were required to produce a given quantity of leather, only 10 are needed to produce the same by the new methods. Heretofore large capital has been required to run a tannery having a regular weekly output. As hides often require to lie in the tan vats nearly a year, it will be seen that a great number must be in process of tanning in order that a certain amount of leather be turned out each week. In addition to extensive plant, heavy investments are represented by the hides in tannage. But the electric process completely revolutionizes this. Hides purchased on Monday have been converted into leather and put on the market by Saturday.

Just what effect the electric current has upon the tannin is, as yet, a question of dispute. Some claim that its effect is upon the tannin, giving it more active properties. Others say that it affects the hide only. Prof. S. P. Thompson, who has examined the process, thinks that the effect is to open the pores of the hide and so permit a more rapid access of the tannin solution.

Another claims that the current renders the gelatine more soluble, so that it is able to combine more rapidly with the tannin. There is reason to believe that there is truth in both these statements, from the fact that the leather is much more pliable and of greater strength than that of the long process.

A company has recently been formed in England, which is preparing to tan quite extensively by electric process. They will have an exhibit of their leathers at the Paris Exposition, as will also the French Electric Tanning Company. Our visiting tanners, leather dealers and shoe manufacturers will no doubt view it with interest. One of our largest leather dealers has decided upon a Paris trip, especially to learn more of this, what a few months ago he termed a new-fangled idea.—*Ex.*

#### Superstition About Storms.

Caverns were supposed by the Romans to be secure places of refuge during thunder storms, and they believed that lightning never penetrated more than two yards into the earth. Acting on this superstition the Emperor Augustus used to draw into some deep vault of the palace whenever a tempest was feared, and it is recorded of Suetonius that he always wore a skin of seal around his body as a protection against lightning. That both precautions are equally unavailing needs scarcely be mentioned.

Lightning has been known to strike ten feet into the earth; but not even the marvelous accuracy of modern science can determine at what distance from the surface a safe retreat may be found from the descending fluid; and even were this ascertained, the dangers from ascending electric currents remain the same. With regard to seal-skins, we find that the Romans attached so much faith to them as non-conductors that tents were made of them, beneath which the timid used to take refuge.

It is a curious fact that in the neighborhood of Mount Cevennes, in the Languedoc, where anciently some Roman colonies were known to have existed, the shepherds cherish a similar superstition respecting the skins of serpents. These they carefully collect, and, having covered their hats withall, believe themselves secure against the danger of the storm. M. Labossiere is disposed to see a link of interesting analogy between the legend which yet lingers in the mind of the peasant of Cevennes, and the more costly superstition held in reverence by his Latin ancestors.

The emperors of Japan retire into a deep grotto during the tempests which rage in such severity in their latitude; but not satisfied with the profundity of the excavation, or the strength of the stones of which it is built, they complete their precautions by having a reservoir of water sunk in their retreat. The water is intended to extinguish the lightning—a measure equally futile, since many instances have been preserved in which the fluid has