

Wire and Picket Fence.

The use of wire as a substitute for bars between posts of fences, has gone the way of plank roads. It was "weighed in the balance and found wanting." The reasons for this termination to the experiment are too well known to need discussion here. The invention shown in the annexed engraving, employs wire only as a connector between upright pickets in lieu of the rails between posts, to which pickets are ordinarily nailed, and also reduces the number of posts required as will be seen in its description below.

It is intended to furnish a cheap, neat, and durable fence, that can be rapidly constructed, and dispenses with the use of nails.

The saving in posts is claimed to be sufficient to pay for the wire, as the posts are set from twenty to thirty feet apart.

Two wires are drawn through a hole in the first post set, and through similar holes in the other posts, to any convenient distance. The wires being fastened at the first or starting post, are left slack along the line for the insertion of the pickets, and wound around the last post of the section of fence under construction to keep them from being drawn back during the insertion of the pickets. The wires are then tightened by laying weights on the slack between posts, the palings distributed along the line answering perfectly for this purpose, one end being allowed to rest upon the ground and the other lying upon the slack wire, and as many being used in a bunch as may tighten the wire sufficiently.

The slack being thus taken up, the butts of the palings are successively set in a shallow trench dug between the posts on the fence line, and the tops being inclined laterally, until they will enter between the wires from the under side, they are brought to the vertical position, the wires being crossed between each picket, care being taken to keep the same wire always at the top.

The wires may be tightened if they should ever become slack by simply putting a twist in them, using a pair of palings for this purpose, turning them in opposite directions. As fast as the palings are inserted, their butts are held by filling in and packing the earth in the trench.

This fence is impassable to all kinds of domestic animals, as nothing but a rat or similar burrowing animal can get under it, and a squirrel is about the only living thing which would attempt to climb over it. No domestic animal could crowd the pickets apart to get through it. The palings can not be pulled off, nor can the wind blow it down. The pickets take the strain off the posts, each one being, in fact, itself a post. The corner posts only require to be of greater strength than the other posts. Each post saves a paling, and may be made to look like it. The sides of the fence are uniform in appearance.

The fence represented in our engraving is a rude farm fence made with split palings; but with sawed palings of equal widths, it can be made very tasteful in appearance, and any form of either wood or metal palings may be used, to suit the taste of the builder. The inventor states that three hands can easily put up six hundred yards of this fence per day. He estimates the actual expense of a complete farm fence with top-sharpened split palings, with butts coated with tar or petroleum, as less than fifty cents per rod.

The palings need only be set from four to eight inches in the ground, according to the character of the soil. When stones are plenty they can take the place of a trench, in which case the butts of the palings do not need any protective coating.

Whether this invention was called forth by our article on cheap fences, published on page 9, current volume, or not, we are unable to say, but it meets a want therein set forth. At any rate, men of inventive genius will find in that and the numerous similar articles we publish, hints that will guide them to important and profitable inventions.

This fence was patented through the Scientific American Patent Agency, June 29, 1869, by P. Davis, of Newport News, Va., whom address for further information.

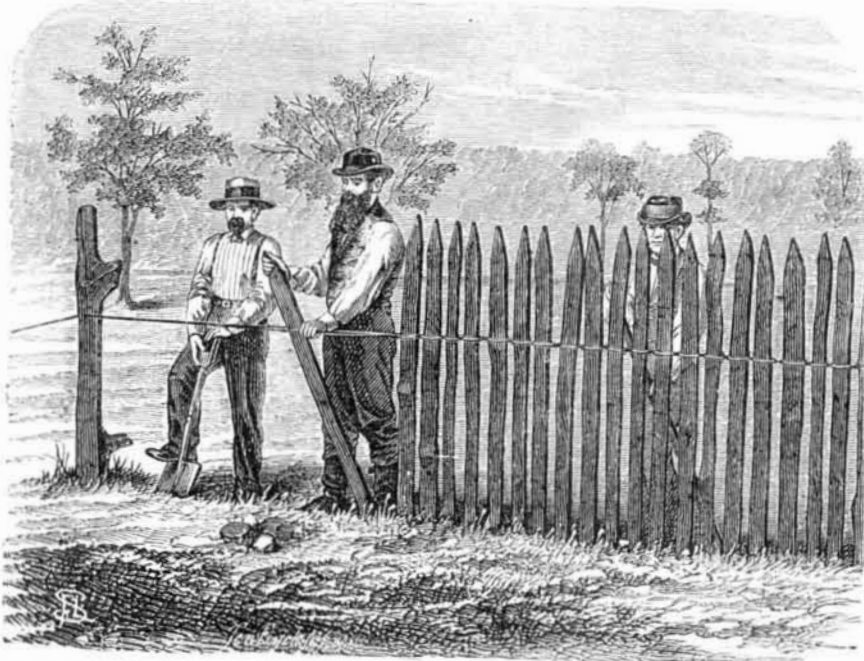
Paper Hangings.

When an amateur attempts this kind of domestic decoration it is desirable that he should attend to the following instructions, otherwise the work, when finished, will show blemishes and stains. First, pum-stone the wall to remove all irregularities of surface, then wash over the size, about one ounce of glue to a gallon of water, and when dry, the wall is ready to receive the paper. The paste should be well boiled and then passed through a hair sieve to extract the lumps, a fruitful source of stains. If the walls are inclined to show damp, add a little corrosive sublimate to the paste to prevent mildew forming on the surface of the paper. The most important matter is to allow the paper to remain pasted for about ten minutes before hanging, in order that it may be well stretched before being placed on the wall. Stout paper hangings such as the "flocks," etc., re-

quire a longer time. If these directions are attended to the thinnest papers will hang without a crease or the objectionable water stains which characterize bad workmanship.

Gluing in Veneers.

I have advised the use of waterproof cements for fine inlaying, so that dampness will not affect them, but as this is not always convenient, it is well to make the glue so that it can be used and the work finished off in a short time. This is easily done by making the glue as thick as it will run, or so that it is like a jelly. If applied in this condition, it will set hard in thirty minutes, and the work may be cut down without fear or danger of its moving. I have done this fre-

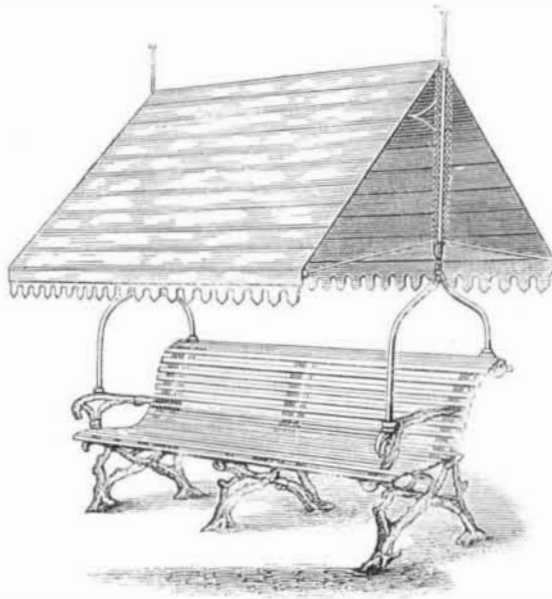
**P. DAVIS' IMPROVED PATENT FENCE.**

quently, in order to see what kind of work I was making. Always put a clamp on your work wherever you can, for although the glue will adhere of itself to the wood, it adheres much more strongly if pressed down by a clamp. Also, never put a veneer on a piece of work that is uneven, for although it may set square under the pressure of the clamp, when you come to scrape it, it will give way and yield to the inequalities, and when varnished and polished, will be full of depressions.

Don't be afraid to rub down with sand paper, under the impression that you are spoiling the work, but let the varnish get thoroughly dried, and be hard before you attempt it. Be sure, also, to remove every particle of varnish if you touch it at all, otherwise that which remains will take a coat while the bare wood will not take so much, and you will have a surface full of scars and ridges. It is not necessary to touch the wood in rubbing down, but go down to the wood, so that a waxy appearance is presented, and you will have a handsome finish that will add greatly to the beauty of the work. White holly is easily soiled when used in connection with ebony, by the dust from it, and it will be necessary to rub it, or scrape it delicately, before varnishing, without touching the ebony.—*Watson's Manual of the Hand Lathe.*

TENT ROOF GARDEN CHAIR.

It must be confessed our English cousins are men of taste in all that pertains to personal comfort. The dainty garden chair we illustrate herewith must indeed be a comfortable



thing in which to recline and enjoy a fragrant Havana, after dinner. The roof is composed of a roller and two canvas shades, which are wound up or extended at will by means of a brass endless chain. Our readers will agree with us that this chair is a very enticing piece of garden or farm furniture, and as it can be imitated easily we shall expect next summer to see many of our suburban gardens adopting the luxury. An article executed tastefully like the one illustrated, will sell, and we hope some of our manufacturers will get them up ready for the next season. A few such tent chairs in a garden would obviate the necessity for a summer-house.

COMMUNICATION WITH AND BETWEEN DEAF MUTES

The sign language, used as a means of communication between deaf mutes, is of course unavailable in the dark, and is also unadapted to the use of blind mutes. It is, moreover unadapted for private communications, as the language spoken to one is spoken to all present who understand it. Spoken language can be whispered, or its volume can be so reduced as to be inaudible to other ears than those for which it is intended; but the force of the sign language cannot thus be modified, and when private conversations are held, written language is generally employed. Besides the tediousness of this process, it cannot always be resorted to, and therefore inventors have tried to devise means whereby conversations may be carried on under all circumstances except the fatal and insurmountable one of separation.

We have within a year or two read in some foreign journal, the name of which we cannot at present remember, of an instrument employed for effecting communication between deaf mutes, or between them and those not versed in the sign language.

We have before us a slip which describes this instrument, and which states that the invention was made by Mr. Bertram Mitford, of Cheltenham, England. "He uses a hollow case of any convenient form or size, made of wood or other suitable light material, and this case is provided with a handle by which it is to be held in the hand of the person using it. On the side of the case which faces the user there are contained the letters of the alphabet, numerals, or other signs useful to persons holding conversation with one another; and upon the opposite side, which faces the person communicated with, there is provided an opening protected by glass. In the interior of the hollow case are placed a number of slides worked by buttons which traverse along slots arranged each immediately above a different letter or sign. The upper end of each of these slides carries the corresponding letter or sign to that marked on the case opposite to the particular button; and when any slide or button is pushed along the slot, the corresponding letter or sign will be presented at the glazed aperture on the opposite side of the case. By successively raising and lowering or moving the slides it is obvious that words can be easily spelt and communication be established with the deaf and dumb without necessitating the knowledge of the signs known as the deaf and dumb alphabet."

While it is evident that this machine will answer the purpose designed; it does not, of course, supply the want we have stated. Sight is absolutely necessary to its employment. We have only noticed it as illustrating the fact that some simple, and easily-formed alphabet is absolutely essential, and



this alphabet must be capable of being read and communicated by the sense of touch.

Such an alphabet, which, so far as we know, is new, it is our present object to lay before our readers. It is the invention of a gentleman living in Brooklyn, and he permits us to make it public property.

In reading or communicating this alphabet the hands are placed, as shown in the accompanying engraving, to bring like fingers of the hands together. The hands are nearly closed as shown, and the balls of the five fingers are placed together, as indicated. The fingers of each hand may be numbered from the thumb, the thumb being called 1 and the little finger 5.

The letters are made by a quick strong pressure of the balls of the fingers of the individual communicating upon the balls of the fingers of the person addressed, the hands of the latter remaining passive; the letters being indicated according to the following system. The touches will be indicated by dots, the number of touches by the number of dots, the fingers with which the touches are made by its number; those on the right hand being further indicated by the letter R and those on the left being indicated by the letter L. Thus:

A - 1, L	N - 5, R.
B - 4, L	O - 4, R.
C - 1, R.	P - 5, R.
D - 2, R.	Q - 4, 5, L.
E - 1, R.	R - 2, L.
F - 1, L.	S - 3, L.
G - 3, L.	T - 2, R.
H - 4, L.	U - 5, L.
I - 3, R.	V - 4, 5, R.
J - 5, L.	W - 2, L.
K - 2, 3, R.	X - 2, 3, 4, R.
L - 3, R.	Y - 2, 3, L.
M - 4, R.	Z - 2, 3, 4, L.

The word "Brute" would be, spelled out, - 4, L; - 2, L, 5, L; ; 2, R; - 1, R; only six motions, which can be made