

circumstances where anything else would be impracticable or objectionable. Thus it may be dissolved in the water used in sprinkling the streets, and relieve us from that peculiar city effluvia which is so noticeable and sickening to those who have just come out from the pure air of the country. It may be used in the washing of the clothing, bedding, etc., of infected persons. It is perfectly safe to be used in the family.—*Scientific American*.

## Useful Receipts.

### Millstone Cement.

A correspondent of the *Scientific American* gives the following:—Take burr block and powder it fine, and take equal parts of powdered burr block, alum and borax, melt and pour in the holes; this is next to the burr in hardness. But I prefer not to put anything in at all; it does not do any good, it will not grind anything, the holes do not hurt anything, as they fill up with flour while grinding. I have had great experience in the milling business. We are running three mills out of seven in this city, I built the first mill in this city some thirty years ago.

Another correspondent of the same journal says;—"I used the following some twenty-five years since, in my steam mill on the Ohio River, viz: Take about equal parts of common alum, pulverized, and pieces of broken china, also pulverized; put the alum in an iron vessel over a hot fire until it becomes a liquid, then stir in the powdered china, or so much of it as will still leave the combined mass semi-liquid, then, while yet hot, pour or plaster it into the cavity; it will soon cool, and become as hard and immovable as any part of the mill stone.

### New Solvents of Gold.

M. Nickles show that iodine under pressure, or even under the influence of light, will dissolve gold leaf. The sesqui-iodide and sesqui-bromide of iron also act as solvents.

### Transparent Pomade.

Dissolve ten grains of Chinese gelatin by boiling in one ounce of distilled water, and remove the impurities swimming on the surface; mix this solution with four ounces of warm glycerin perfumed by five drops of oil of bergamot, or three drops of the oil of roses, and colored by extract of rhubarb. The mixture, when cold, should be tried by rubbing between the hands whether it will melt or not. If it should be too stiff, then warm it up in a water bath, and add to the fluid compound a small quantity of glycerin and let it cool; but if it proves to be too soft, add one to two grains of gelatin, previously dissolved in water. Heat the pomade to a temperature of 40 deg. Cent., and pour it into glass vials, where it will become stiff and transparent.

### Cement to fill cracks in old Furniture.

Moisten a piece of recently burnt lime with enough water to make it fall into powder; mix one part of the slaked lime with two parts of rye flour, and a sufficient quantity of boiled linseed oil to form it into a thick plastic mass.

## Photography.

### Pine's Toning Process.

A correspondent of *Humphrey's Journal* has the following:—

Having had numerous inquiries referring to the bright and clear tone of my prints, and as many suppose I use a peculiar toning bath, I send you herewith the secret of their brightness, which is owing to the prints being thoroughly freed from the nitrate of silver before toning. To accomplish this object I have recourse to the following method:

I take the prints just as they come from the printing frames, and immerse them in a solution composed of water, one pailful, common salt, one ounce. The prints are immediately covered with a white powder (chloride of silver), which gives them a foggy appearance, I then lay them, one at a time, on a glass, face upward, and remove the powder by means of cotton flannel, wrapped round a wooden roller, a little longer than the width of the print. By passing this roller over the print once, with moderate pressure, the chloride of silver is entirely removed, and the print looks bright and clean. The print is then placed in a dish of clean water, and the operation is continued until all the prints are in the second dish, from which they are placed in the toning bath. I can wash thoroughly five hundred 6½ by 8½ prints in an hour without difficulty.

The advantages of this plan of washing are—

1. Three-quarters of the silver used in printing can be saved, as all of it that is washed off remains in the first dish.

2. The prints are washed thoroughly, which cannot be done by placing them in running water.

3. The prints can be toned with one-third less gold than was formerly used.

4. The prints, being clean, tone quickly, and do not change color in the fixing bath.

5. The fixing is accomplished in less time, and is more thorough, than when the prints are imperfectly washed.

6. Great economy of water: six pailfuls being ample in which to wash five hundred 6½ by 8½ prints.

7. Meakiness in the prints is entirely avoided.

I use an 80-grain silver bath, and float the paper one minute in summer, and two minutes in winter, and tone with a simple solution of chloride of gold and water, neutralized with chalk. I fix the prints in a bath composed of water, 16 ounces, hypo. soda, 4 ounces. If the hypo. soda be acid, I neutralize the solution with carb. soda. Some may suppose the surface of the paper is injured by rubbing it with the flannel, but such is not the case.

### Card Groups and new style of Carte-de-Visite.

Card groups now much in favor at Vienna, are as follows:—It is a card of the ordinary dimensions, containing a group of seven persons, distributed lengthwise on the card. It represents the interior of a drawing room, a panelled wall, chimney piece etc., forming the background. Two of the figures are seated at a grand piano, playing a duett, while a third one turns over the music; a fourth, standing near, leaning on the chimney piece, apparently