

ladies, notwithstanding they wear long hair, (which is more likely to fall out,) seldom are bald-headed. Their heads are not kept closely covered. In sleeping, do not cover the head with a night-cap.

Arts and Manufactures.

STONE CEMENT.

Hydrated silica combines much easier with bases than common quartz-sand, (anhydrous silica.) On this Professor Boettger has based the employment of infusorial earth, a white pulverulent mass, which occurs in various localities in Europe and in this country, in large masses, as the binding ingredient of an excellent cement for stone-work. He mixes equal parts of infusorial earth and oxide of lead (litharge) with one half the quantity of hydrate of calcia (freshly slacked lime) and linseed-oil varnish to a homogeneous thick paste, and obtains a mass of extraordinarily great binding power, which after some time assumes the hardness of common sandstone. This cement is applicable in all cases where iron is to be fastened in stone, where artistic stone-work, such as fountains, vases, statuary, etc., is to be mended; in short, where small quantities of the binding material are required. For the more common uses of the mason and stone-cutter, this cement is, of course, too dear to permit of extended application.

COLORED CEMENTS.

A writer in *Comptes Rendus* states that colored cements which harden rapidly may be made as follows: He takes a solution of silicate of soda (sp. gr., 1.298) and adds to it while stirring, first pulverized and previously washed, lixiviated chalk, so as to form a thick mass, like butter, to which are for coloring purposes, the following substances: Finely pulverized sulphuret of antimony for black, iron filings for grey, zinc dust for whitish gray, carbonate of copper for bright green, oxide of chromium for deep green, cobalt blue for blue, red lead for orange, vermilion for bright red, and carmine for violet hue. This cement hardens within from six to eight hours, and may afterward be polished, becoming like marble.

THE SUNBEAM.—The following is from the *British Quarterly Review*: The greatest of physical paradoxes is the sunbeam. It is the most potent and and versatile force we have, and yet it behaves itself like the gentlest and most accommodating. Nothing can fall more softly or more silently upon the earth than the rays of our great luminary—not even the feathery flakes of snow, which thread their way through the atmosphere as if they were too flimsy to yield to the demands of gravity, like grosser things. The most delicate slip of gold-leaf, exposed as a target to the sun's shafts, is not stirred to the extent of a hair, though an infant's faintest breath would set it into tremulous motion. The tenderness of human organs—the apple of the eye—though pierced and buffeted each day by thousands of sunbeams, suffer no pain during the process, but rejoices in their sweetness and blesses the useful light. Yet a few of those rays, insinua-

ting themselves into a mass of iron, like the Britannia Tubular Bridge, will compel the closely-knit particles to separate, and will move the whole enormous fabric with as much ease as a giant would stir a straw. The play of those beams upon our sheets of water lifts up layer after layer into the atmosphere, and hoists whole rivers from their beds, only to drop them again in snows upon the hills, or in fattening showers upon the plains. Let but the air drink in a little more sunshine at one place than another, and out of it springs the tempests or the hurricane which desolates a whole region in its lunatic wrath. The marvel is that a power which is capable of assuming such diversity of forms, and of producing such stupendous results, should come to us in so gentle, so peaceful and so unpretentious a guise.

TO MAKE MATS FROM SHEEPSKINS.

A fresh skin is more easily prepared than one a little dry. A strong soap-suds is used to wash the wool, first letting the water cool so as to be slightly warm to the hand. In the mean time pick out all the dirt from the wool that will come out; then scrub it well on the washboard. A table-spoonful of kerosene added to three gallons of warm suds will greatly help the cleansing process. Wash in another suds, or until the wool looks white and clean. Then put the skin into cold water enough to cover it, and dissolve half a pound of salt and the same quantity of alum in three pints of boiling water; pour the mixture over the skin, and rinse it up and down in the water. Let it soak in the water twelve hours; then hang it over a fence or a line to drain. When well drained, stretch it on a board to dry, or nail it on the wall of the wood-house or barn, wool side towards the boards. When nearly dry, rub into the skin one ounce of powdered alum and saltpetre, (if the skin is large double the quantity;) rub this in for an hour or so. To do this readily, the skin must be taken down and spread on a table or flat surface. Fold the skin sides together and hang the mat away. Rub it every day for three days, or till perfectly dry. Scrape off the skin with a stick or a blunt knife till cleared of all impurities; then rub it with pumice-stone, or, if more easily procured, rotten-stone will do. Trim it to a good shape, and you have an excellent door-mat. Any intelligent housewife can dye it green, blue, or scarlet with the so-called "Family Dyes," either in powder or liquid and she will have as elegant a door mat as she could desire.

Lamb's skins can be similarly prepared and made into caps and mittens. Dyed a handsome brown or or black, they equal imported skins. Still-born lambs, or those that die very young, furnish very soft skins, which if properly prepared would make as handsome sacks, muffs and tippets as the famed Astrachan. Any former's daughter could easily prepare skins enough to furnish herself with a handsome suit.—*Mechanic and Inventor*.

MATERIAL FOR ICE HOUSES.—It is said that one of the best materials for ice houses is peat: but the genuine moss peat must be employed, and it ought to be cut in pieces fourteen inches long and five to six inches wide and thick. When it is thoroughly dried to prove to be a poor conductor of heat, and when lain up around ice houses above the ground, is preferred by many persons to sawdust, tan bark, and the like.