

ing or in study, and not more rational is she who thinks every moment of her time lost which does not find her sewing. We once heard a great man advise that a book of some kind be carried in the pocket, to be used in case of an unoccupied moment, such was his practice. He died early and fatigued. There are women who, after a hard day's work, will sit and sew by candle or gas light until their eyes are almost blinded, or until certain pains about the shoulders come on, which are almost insupportable, and are only driven to bed by physical incapacity to work any longer. The sleep of the overworked, like that of those who do not work at all, is unsatisfying and unrefreshing, and both alike wake up in weariness, sadness and languor, with an inevitable result, both dying prematurely. Let no one work in pain or weariness. When a man is tired he ought to lie down until he is fully rested, when, with renovated strength, the work will be better done, done the sooner, and done with a self sustained alacrity. The time taken from seven or eight hours' sleep out of each twenty-four, is time not gained, but time much more than lost; we can cheat ourselves, but we cannot cheat nature. A certain amount of food is necessary to a healthy body, and if less than that amount be furnished, decay commences the very hour. It is the same with sleep, and any one who persists in allowing himself less than nature requires, will only hasten his arrival at the mad-house or the grave. This is especially true of brain work.—*Scientific American*.

#### Reflectors for Street Lamps.

The *American Artisan* suggests that reflectors over the street lamps would send down the light that now goes towards the fixed stars. In the absence of such reflectors one-third of the gas used is wasted. This suggestion is worthy the consideration of municipal rulers, anxious to economise their finances and keep down taxes.

#### A Remarkable Iron Mountain in Canada.

The existence of an immense iron mountain, almost on the shores of Lake Superior, outrivalling the famous iron mountains of Marquette, seems too marvelous for belief, yet the fact is even so. It is surprising that such a wonderful mineral deposit should remain undiscovered until a recent date. This mountain is six hundred feet above the level of the plain, and nine hundred feet above the level of the lake, being about twice as high as the iron mountains of Marquette. The first examination was made in July this year, by Professor Duffield, of Detroit, who, from the general features, concluded that the range was identical with that of Marquette, and to satisfy himself he visited Marquette to get the range, by which his theory was sustained. A company was formed, which obtained a patent from the Canadian government for 3,200 acres, which comprises the mineral tract in question. Four weeks ago, some of the representatives of the company, with a few scientific gentlemen, set out for the district upon a tour of exploration. The party returned a day or two since, and report that the most sanguine expectations concerning the extent and richness have been more than realized. The ore is of the finest quality, and extending several miles, in deposits many feet in thickness. It is so plentiful that by no human agency can the supply be exhausted for hundreds

of years! A quantity taken from the depth of only fifteen feet from the surface, and smelted in a common blast furnace, realized 60 per cent. of pure iron. As 30 per cent. is a good working average, the richness of the newly discovered ore will be apparent. At a greater depth its purity will be on a corresponding scale, in accordance with a well-known mineralogical law.—*Detroit Tribune*.

#### Limes and Mortar.

On the subject of slaking lime for a considerable time before use, a writer in the *Builder* says: "My experience, after many trials and careful attention, convince me that for all rich, fat, or very meagre limes, this is the best plan; but it is, of course, necessary to keep the lime from contact with the air, by submersion or otherwise. With limes that are moderately or even slightly hydraulic, I hold such a process injurious, as, when once these limes have begun to set, they could not be disturbed, as the setting properties cannot again be restored except by a second calcination, to drive off the chemically combined matter."

#### Dispensing with the Steeping of Flax.

It appears from the *Society of Arts Journal* that a French manufacturer named Bertin has invented what is reported to be a successful method of dispensing with the steeping of flax. After the fibres have been crushed in the ordinary way, M. Bertin submits them to a new process, that of friction between two channelled tables, which have a sideway as well as to-and-fro motion; in fact, the action is similar to that of rubbing the fibres between the palms of the hands, but under considerable pressure and with great rapidity. The fibre is afterwards beaten in water, which carries off every particle of woody matter, and leaves the flax completely unbroken and in parallel masses. The principle of friction tables has been applied by M. Bertin in other cases; and is said to furnish an economical, rapid, and perfect mechanical action. The same gentleman has adopted a new system of chemical steeping to get rid of the resinous and other matter which attaches the fibres together, which is said to produce the required effect in less than two hours, at a cost of about 1s. 8d. per cwt., leaving the flax nearly white; but the particulars are not given. By M. Bertin's system it is affirmed that the yield of flax is raised from 12 or 15 to 20 or 22 per cent. of the gross material. Lastly, M. Bertin collects the refuse beneath his crushing machines, burns it in his boiler furnaces, and uses the ashes and the water in which the flax is steeped as manure, giving back, as he affirms, the whole of the mineral salts and azotised matter contained in the crop, and the cost of so much artificial manure saved to the cultivator.

#### Mantel Ornament.

An acorn suspended by a piece of thread within half an inch of the surface of water in a hyacinth glass, will, in a few months, burst and throw a root down into the water, and shoot upwards its straight and tapering stem, with beautiful little green leaves. A young oak tree, growing in this way on the mantel-shelf of a room, is a very elegant and interesting object.