For the Scientific American.

Carpeting.

(*Continued from our last*)

A desire for something in the interior of a dwelling analagous to the soft clothing of the external world, seems to be generally felt; for in all states of society, attempts are made to remove the hardness and unseemliness of the floor. Among the poorer nations, these attempts are confined to the mere dormitories, but, as advances are made in wealth, the mat and carpet begin to appear. The softness of the turf, and more than its smoothness having been attained, it was natural also to imitate its embellishment; for this purpose several distinct kinds of carpet texture have been contrived. On one of these, the ingrain, we have already reported an immense improvement, and proceed to describe a no less striking improvement on another, the Brussels carpet

The Brussels carpet is distinguished from the common ingrain, by having a *raised pile*, and by the circumstance that the figures and colors are entirely produced from the warp The pile is raised by inserting a wire between the body of the warp and the previously raised coloring threads. These threads descend and are fixed by the weft, which is of linen, two picks being given before the insertion of each wire, and these picks are called "binders," and after a few repetitions of the process, the wires are withdrawn; taking care that they be not drawn out too near the face of the cloth; otherwise the looped warp would become stretched, by recovering the position in which it was before the wires were inserted.

The Wilton carpet differs only in this, that the pile is made somewhat longer, and cut in the manner of velvet. Were the colored warp however, raised into pile at each stroke the web would have simply a striped appearance, and if it were raised only at intervals, the figure would be given in relief, but still would be merely striped In order to produce a properly colored pattern, several colored yarns are arranged, *so that any one of them may be raised into pile.* Their number is generally five and these constitute what is called "five covers," so that, by their irregular ascent to the surface, the striped appearance is almost broken up. Still, however, the web is essentially striped, and though the designer be not nearly so hampered as in the Kidderminster texture, he is yet seriously incommoded in his choice. Let us suppose a board painted in minute colored stripes. After these have dried, let another coating of colored stripes be laid on, and so on for five coats, each differing from the preceding; the painter may now form an idea of difficulties encountered by the "carpet designer,"—let him set to work, by scraping away the different coats, to produce a pattern. But there is another annoyance; in order to produce the smallest speck of any particular color, a thread of that color must traverse the whole pattern; and that thread may displace some other which would have been advantageously brought in elsewhere. On account of the very different rates at which the colored threads are taken up, these cannot be wound upon one beam, but have to be placed upon a bobbin by itself.

To remedy the inconvenience of this texture the (Brussels carpet) Mr. Richard Whytock, of Edinburg, contrived a method of partially dyeing the yarns; but we cannot fully understand the value of the contrivance till we have glanced at another kind of carpet texture.

The *Turkey carpet* is the simplest in its texture of all carpets, and at the same time is almost unlimited in the choice of colors. Let us suppose ourselves seated at a common loom, and that immediately after having thrown a pick, we commence to tie on every thread of the warp a small bunch of colored worsted yarns, varying the color to our fancy. This completed, let two or three picks be thrown, and well driven up; and then another row of colored worsteds tied on. It is clear that *in this way we could produce any pattern*, and that no more of any particular color is wanted than is sufficient to produce the required effect; nay more, the colors being put on by hand, we would not be compelled to reiterate the pattern at each stated distance. Here we have every advantage that we can wish for, excepting the important one—rapidity of formation.

Whytock's method supplies to all the advantage of the Turkey carpet, a rapidity of weaving greater than that of the Brussels fabric. His method may be described thus: If for the five colored yarns of the Brussels carpet we could substitute one yarn dyed of the requisite color at different places, we would be able to dispense *with all the apparatus for producing the pattern*: could make the web with only one body and work it as a simple velvet. The only difficulty would then be in the dyeing of the warp threads.

Before concluding we would draw attention to a subject of great importance to society in general. A strong prejudice sanctioned by an old proverb, exists against those who turn their attention to several branches of the arts. Yet it is a fact, that almost every improver has been Jack of a good many trades; nay, an acquaintance with a variety of operations is essential to the invention of new ones; and very often prodigious improvements are effected by the transference of a process from one art to another May we be allowed to hint that the triple carpet is one of those generalizations so often found in scientific researches, and that its inventor Thomas Morton, appears to have extended his studies far beyond the subject of carpet weaving. Mr. Whytock's carpet again bears on the face of it the necessity for a knowledge of the arts of *dyeing weaving and scheming*; for no one not intimately versed in these could have conceived, or having conceived, could have carried the idea into effect.

Another idea exists, that the happening upon new discoveries is a matter of chance, and some appear (we judge from their conduct) that the less they know of a subject the more apt they are to alight on something new; as a bad swordsman trusts to that very circumstance for outwitting his antagonist. Once in a century, indeed, one may find by chance, some valuable process; but the great mass of our current inventions are the fruits of assiduous and well directed exertion; and the mind, even more truly than the body, must earn its bread in the sweat of its brow.—Gilroy.

(*To be continued.*)

The Moon.

Those who, for the first time behold the moon's surface through a powerful instrument, will always be disappointed in its appearance. There are mighty mountains on its surface. There are deep bleak cavities, some perhaps fifteen, twenty, forty, and even sixty miles in diameter, and sinking below the surface seven and eight thousand feet. Out of these, mighty rocks arise two thousand feet above the level of the valley, casting their black shadows upon the plains below.

By the lights and shadows which show themselves to the eye, astronomers measure the height of these mountains, by remarking the relative position of the sun and the earth. They mark the extremities of their long deep shadows, and find, that as the sun slowly rises, the shadows by degrees recede towards the base of the mountains; and when noon-day arrives they entirely disappear. Then as the sun begins to decline on the other side, the same dark shadows are cast in opposite directions. They watch these movements, till they ascertain with perfect certainty the character of the object which casts the shadow, and then measure the height. The moon has no atmosphere—at least not such a one as will compare at all with ours. The Moon's atmosphere if indeed it have one can be no denser, than the extremely rarified air, left in the most perfect vacuum yet produced in an exhausted receiver. It cannot sustain animal life—it cannot support clouds And for the reason that the moon has no atmosphere, there is no gradual fading away of the light as the Sun sinks deeper below the horizon—no soft, mild, and lovely twilight, such as sheds a holy serenity over our favored globe. There used to be many superstitions about the moon. Throughout the east the opinion was common that the moon-beams were deleterious—injuring the sight and defacing the countenance of those who slept exposed to them. The fishermen of Sicily even now, cover their fish at night because they fear the moon would putrify them but this is known to arise from the absence of clouds on a moonlight night, when the fine clear sky favored the radiation of heat, by which bodies became colder than the surrounding air, and hence the mischief of putrefaction. Epilepsy and insanity were supposed to be greatly influenced by the moon; but even these might possibly be accounted for as easily as the first charge laid to our silvery satelite.

Figure of the Earth.

Before the time of Newton, it was never suspected that the figure of the earth differed in any way from that of a perfect sphere, excepting the small irregularities produced by the mountains and vales. The first circumstance which lead to the determination of its true figure was the discovery that the pendulum of a clock, used for astronomical purposes, and therefore required to keep perfect time, did not vibrate so frequently at the Equator as at Paris. Other trials were made which proved that the decrease was gradual, from the Equator to the poles. Here was a new field for the philosopher's investigation. Newton, ever vigilant in scientific pursuits, took the matter in hand, and eventually framed those sublime calculations by which, as Fontenelle, remarked, "He determined the true figure of the earth without quitting his elbow chair.

Spurious Opium.

A case was tried in Boston a short time since, in which the plaintiff demanded back the money he had paid for a large quantity of opium. He proved that although the article appeared so like opium, that it was impossible to detect its bad character by ordinary examination, yet, in reality, it was entirely worthless, being composed of that part of opium which is thrown away after extracting the morphia from it, with an addition of meconic acid, and the other solids and alkalies belonging to opium and some powdered marble, a very ingenious compositioon. The Judge ruled that the bill was a guarantee that it was opium. If it was not opium, the plaintiff was entitled to recover, and the jury gave a verdict for the amount of the purchase money with interest.

Steam Wagons.

Two persons were recently travelling on one of our roads in the interior, in a carriole, smoking cigars, from the fire of which some straw at the bottom of the wagon became ignited. The flames soon drove them from their seats, and while they were busy in extinguishing the fire, a countryman, who had been for sometime following them on horseback, alighted to assist them. "I have been watching the smoke for some time." said he. "Why then, did you not give us notice?" asked the travellers. "Well," responded the farmer, 'there are so many new-fangled inventions now a days, I thought you were going by steam!"

Woman.

There is poetry and inspiration in this word and when we perceive a mawkish fastidiousness regarding it, we cannot but regard the signs of the times, with a contemptible sneeze for politeness and pallavers. There are no women now a days—all are *ladies*, —and the men *gentlemen*,—oh dear, hold this smelling bottle to my nose, a mechanic has passed between me and the wind.—The Hon. John Donkey took breakfast at the Hon. Lady Snifters last Wednesday morning at noon, and with the most enchanting affability, she languishingly asked him if he drank cream (New York cream, chalk and water) with his Mocha? The Hon. Mr. Donkey brayed in a most gallant manner, "all things good, most noble lady."

Can't Understand It.

We cannot understand it how it is that delicate young ladies, too delicate to run up and down stairs in their own houses, are able to dance down the strongest man in a ball-room. 'Tis a phenomena of nature which no one seems capable of giving an explanation What young girl ever refused a handsome partner at five o'clock in the morning, on the score of being "so tired?"

Foreign Scientific Miscellany.

We learn from our foreign correspondent, that the Lords of the British Admiralty have paid a visit to the naval establishment at Woolwich, in order to inspect the new Saw Mills completed by Mr. Rols, the contractor. This invention of Mr. Cochrane, of the United States, is the only one which may be said to be successful for the manufacture by machinery of the timbers employed in the frame work of vessels; and the erection just completed at Woolwich Dockyard is the only one on Mr. Cochrane's plan in England. The machine requires three persons to tend it while at work—one at each of the saws, and a third to direct the bevelling motion.

Hydraulic Telegraph.

The following is an account of the hydraulic telegraph which we noticed some time ago. The telegraph is produced from the action of water, and has been patented by a Mr. Jewett. It appears very simple and ingenious, and is likely to excite some attention.—The model now exhibiting consists of a small tube with a piston and indicator at each end. An upright plate contains the letters of the alphabet, the first letter being at the top of the plate at one station and at the bottom of the plate at the other. Thus if a telegraph of this description were laid down from London to York, the indicator, if pointing to the letter A, would be at the top of the plate at the former place, and at the bottom of the latter.—As the one piston descends, the other, from the pressure of the water, ascends in exact proportion, each indicator pointing to the same letter.

The Ventilometer.

At the Royal Institution, in London, on the 4th ult., an instrument, invented by a French naval officer, in high command at the port of La Rochelle, where it has been tried during more than three years, was described. It foretells the changes that take place in the electro-magnetic currents; so that during the 24 hours succeeding any period of observation the wind indicated by its needle will certainly blow—the change generally taking place between 12 and 18 hours. The instrument is not acted upon by the light breezes, but by any strong wind, and the inclination of the needle indicates the velocity of such winds up to violent tempests.

Traveller's Door Fastener.

Among the various inventions which have have lately been patented in England, is one termed a traveller's door fastener, which is composed of two small metal plates formed into a wedge by the insertion of a piece of wood between them, while the under plate is fitted with two small spikes that catch the floor. The sharp end of the fastener is thrust under the door, and is more firmly fixed by every attempt to enter the room, while a cord carried to the bedside enables a person lying in bed to withdraw the wedge, and thus admit a visitor.

Railway Alarm.

Captain Fitzmaurice, of Ramsgate, England, has invented a very simple and effective railway alarm. It consists of an alarm bell placed on the tender. This bell is kept silent by a piece of leather, on which it is pressed by an iron pin. This pin may be pulled out by drawing a string; and when released by this means, the bell by a strong spring is violently rung. The string passes loosely along the under edge of the roofs of the carriages on the outside; and, as it is not required to be kept tight, no more is necessary than to haul in the slack from any part of the train, and release the pin, when the alarm is given.

[This is old on American Railroads.

Knitting Stockings by Steam.

A number of influential inhabitants of Ipswich, England, have introduced into that town an important branch of industry, likely to give employment to a large number of persons. Machines are now as work knitting stockings by steam. The work is done with beautiful accuracy. One young person can attend to three machines, and each machine will knit one stocking in three hours.

The deficiency in the consumption of tea last year was 269,000 lbs. in Dublin and 240,000 lbs in Belfast.