

Pouillet found a live arachnideous larva in the air passages of human lungs dissected by him. One object, seemingly the ovum of an animalcule, was noticed. In the falling dew an inchoate greenish and brownish matter appeared, together with some rounded granules. In dew collected off a leaf, where it could not have been more than a couple of hours, a very lively monas was found disporting itself.

The possible connection of some of these objects with lung disease, especially with what has been called embolic phthisis, was pointed out. Some of them, from size and shape, seemed sufficient to cause irritation in the lungs. Knife-grinders' rot, grinders' asthma, the lung-disease of millstone makers and of cotton-workers were occasioned by the dust to which they were exposed. Some protection was given by the shape of the nasal passages, the hairs and moist mucous lining; but Pouillet's dissections revealed that objects had entered and remained.

Ordinary dust, being generally chaotic, was disregarded in drawing but the diagrams. It is formed by the wearing away of the earth and the objects on it, generally speaking. In composition it varies with the locality. In the country the wind sweeps the roads and fields, and forms its dust of powdered clay and stone, some fine spicula of quartz, triturated fragments of excrementitious matter, rare and minute particles of the hair and wool of animals, worn off. In towns, dust similarly is formed, but particles of soot are frequent. A French author has found them in the lungs of city birds, together with starch granules, which I never encountered. In manufacturing towns, like Belfast, a fine soot dust falls plentifully. The carbon thus breathed may help to account for the pallid features of inhabitants of towns, when compared with residents in the country. Besides these, there was dust arising from the wearing away of clothes and cloths of all kinds, of vegetable and animal hairs and products ground off fine by every movement; of carpets, of furniture, and, in libraries, of books. Currents of air on walls and ceilings sweep off particles from them, and into rooms we bring the out-of-door dust on our clothes and boots.

Besides all this, "city or town air" contains particles of mucus; so does the air of crowded assemblies, together with some fragments of epithelial scales. The mucus, as to form, is occasionally globular, sometimes dumb-bell shaped, arising from the manner in which it is sent spinning through the air. Horses and cows give origin to the larger specimens in streets and cattle exhibitions. Air-bubbles are sometimes mixed with this mucus. At times, on drying, it simply fissures; other specimens crystallize out, and others become resolved into fine granules. The beautiful dendritic crystals of the second kind mentioned were identified as formed by muriate of ammonia. In one instance crystals of margarine were, it was believed, detected. As to the granules, if found isolated, they might mislead observers into thinking them "germs." After being formed, they would be quickly blown about in the air. Granules of a like kind were found in the atmosphere of a patient seized with infantile remittent fever of a severe type, and the observer believed that the irritation of the membranes of his own eyes and nose that ensued was due to their presence. I consider that they, in all probability, are the agents in contagion, acting possibly by altering the molecular condition of the fluid with which they come in contact which alteration is propagated, more or less efficiently, through the system.

#### HYGIENIC BUCKWHEAT CAKES.

Who does not love buckwheat cakes? Echo answers, who! But the ordinary buckwheat cakes which form so important an article of diet upon the breakfast table, possess heating and eruptive tendencies, and are unwholesome for dyspeptically-inclined persons, as well as those who follow sedentary pursuits. The following recipe produces excellent breakfast cakes, far superior to old-fashioned buckwheat cakes. They are recommended as being more light and spongy, more nutritious, perfectly hygienic, and very palatable:—

One-half buckwheat flour.

One-third Graham flour.

One-third Indian meal.

Mix with good, light buckwheat or hop yeast at night. The following morning add a tea-spoonful of soda dissolved in warm water, a table-spoonful of molasses and a pinch of salt. If not sufficiently thin, add enough luke-warm water to make them of the right consistency. Bake thoroughly done, and our word for it you will have delicious cake, as digestible for invalids as for the healthy.

During warm weather omit the Indian meal, using one-half buckwheat and one-half Graham flour.

#### WASTE OF LABOUR IN BUILDING.

The *Scientific American* says: Of all the painful sights we are called upon to witness in this day of steam engines and labour-saving appliances, none strikes us as being so absurd and unnecessary as the waste of human toil in building as it is generally conducted. Hodmen crawling up long ladders with small burdens of bricks and mortar, carrying at each trip some sixty or seventy pounds of building material, with thirty or forty pounds of hod, and one hundred and sixty or more of flesh and blood—not to mention beer—seems something so foreign to this age of machinery that we should scarcely feel it more incongruous to see the stocks and pillories restored to our market-places.

If a huge beam or girder is to be raised, we see the crane, tackle, and steam engine employed, but the ordinary carrying is done by human legs. These legs, although they can do climbing passably, are certainly inferior in this respect to other legs designed by nature to make climbing a specialty.

A ladder is a very serviceable appliance in its way; we, however, believe it to be as hard a road to travel as ever the genius of man devised. The hod belongs to an ancient and honourable family of implements, but it does not seem the most agreeable companion in the world to clasp in affectionate embrace or clasp one's cheek fondly against.

Therefore we say down with the hod; let it take its place with the host of implements, on the tomb of which modern progress has written the epitaph—"PLAYED OUT."

Let us suppose the two side pieces of a ladder to be replaced by iron rails, and the rounds by ties, and let us suppose some genius to conceive the happy idea of causing a locomotive to crawl tediously up this heavy grade, drawing after it a load of one third its own weight. What gibings, what laughter, what derision would such a scheme excite among mechanics! Yet we are annually importing large numbers of locomotives to do the same thing; only these locomotives run on the ties instead of the rails.

They do these things better in France. Either derricks are employed, or the brick and mortar carriers are used as stationary engines, rather than as locomotives. In passing a building in process of erection in Paris, one may often see a number of men stationed one above the other along a ladder, each of whom passes his load to the next above him, until the load reaches its destination. In this way a continuous procession of materials is kept up, and a large quantity may be elevated in a short time.

This is an improvement on the climbing process, but there must, even in this way, be an enormous waste of power. And this waste is not only useless, but so easily avoided that the continuance of the employment of human power to perform such rude work, is a disgrace to modern civilization. It can be demonstrated that a small one-horse power engine, with suitable tackle, and the employment of a single man to attend it, will do the work of six men at elevating bricks and mortar, at a cost of less than the wages of two men.

No mechanic who reads this will fail to see many ways in which this application of steam power could be advantageously made. The ladder might be replaced by a railway, up and along which a car-load of bricks or mortar might be made to roll, which track might be joined to and made continuous with a horizontal track, by means of an easy curve at the summit, the whole being adjustable to suit the progressive heights of the walls as they advance towards completion. It would require little genius to adjust the detail, and the cost of building would be greatly lessened by dispensing with the hod carriers.

TRANSIT OF VENUS.—ASTROLOGICAL CONSIDERATIONS.—The Queen has sent a message to Parliament that due provision has been made for observation of the transit of Venus in 1874. Transits of Venus are as rare as they are important. They occur in couples in June and December, about eight years apart, and then not again for several generations. Kepler was aware of the phenomenon, and as early as 1604 announced that one would take place in 1761, but young Horrocks, of Liverpool, with better tables and additional data, calculated that there would be a transit on the 4th of December, 1839. He let a friend into the secret, and these two, on the day named, for Venus was punctual, were the first ever known to observe it. It was soon calculated that one must have taken place on the 6th of December, 1631, and another in June, 1826, and that the next would not occur till the 5th of June, 1761. But of all the transits, past and to come, the climax would be that of the 3rd of June, 1769, when Venus passed across the disc of the sun very near the centre. The next one, but not visible in this country, will take place five years hence, on the 8th of December, 1874, which will be a grand one for science considering the great advance in scientific instruments, but far inferior to the last. If, however, it produces only half-a-dozen Caesars it will be a godsend to this rapid century. Let young folks take note of the date, 1874. Another will occur on the 6th of December, 1883, but not again till nearly five quarters of a century later, on the 7th of June, 2004; to be followed eight years after, on the 5th of June, 2012; to be repeated in December, 2117, and so on. The last Transit of Venus was a conjunction of planets coincident with the birth of twelve imperial men of nature, more renowned than the twelve Caesars. No other single year, probably before or since, ever produced such men as Napoleon, Wellington, Soult, and Ney; Brunel, Mahomet Ali, Turner, Sir Thomas Lawrence, Chateaubriand, and Castlereagh; Cuyler and Humboldt; men who upturned the world and set it right again; who revolutionized science, art, politics, states, and affairs of mankind.

#### BAPTISMAL NAMES AND THEIR SIGNIFICATION.

For the benefit of those curious on this subject, we give a partial list of female names, with their meanings:

Adelaide, Adèle, Adelina, Alice, Aline, noble maiden.—Adrienne, virile courage.—Agatha, good.—Agnes, pure, innocent.—Alexandria, protector of warriors.—Amanda, amiable.—Amelia, powerful above all.—Anne, graceful.—Anastasia, resurrection.—Angela, messenger of the sun.—Antoinette, inestimable.—Augusta, venerable.—Aurelia, sun.—Aurora, daybreak.—Barbara, stranger.—Beatrice, ever happy, blessed.—Berenice, victory.—Bertha, bright, illustrious.—Blanche, fair-skinned.—Bridget, strength.—Camilla, free maid.—Caroline, valiant, celebrated.—Catharine, pure, sincere.—Cecilia, blind, small-eyed.—Celeste, Celestine, celestial.—Charlotte, valiant.—Christine, Christian.—Clara, famous.—Claudia, lame.—Clementine, merciful.—Constance, firm.—Coralie, young and beautiful.—Cordelia, jewel of the sea.—Cornelia, croak, bird of augury.—Cyrilla, lordly.—Dagmar, Dane's joy.—Diapa, goddess.—Dolores, sorrows.—Dominica, Sunday child.—Doreas, gazelle.—Dora, Dorothea, gift of God.—Drusilla, strong.—Eleonor, undisputed perfume.—Eliza, Elizabeth, oath of God.—Ella, elf friend.—Elsie, white.—Elsie, noble cheer.—Emily, gentle.—Emeline, melody.—Emma, protectress.—Ernestine, earnest.—Esmeralda, emerald.—Estelle, star.—Eugenia, happily born.—Eva, life.—Evangeline, happy messenger.—Fanny, Frances, free.—Faustina, lucky.—Felicia, happy.—Fenelia, white-shouldered.—Flora, flowers.—Florence, flourishing.—Gabrielle, hero of God.—Genevieve, white maid.—Georgiana, husbandman.—Geraldine, spear power.—Gertrude, spear maid.—Gwendoline, white-browed.—Harriet, Henrietta, home ruler.—Helen, light.—Heloise, famous holiness.—Hortense, gardener.—Ida, thirsty.—Inez, pure.—Irene, peace.—Isabel, oath of Baal.—Jacinthe, purple.—Jane, Jenny, Jessie, Joanna, grace of the Lord.—Josephine, addition.—Judith, praise.—Julia, downy bearded.—Justin, just.—Laura, laurel.—Leonora, light.—Letitia, gladness.—Lettie, truth.—Lillian, Lillas, lily.—Lilla, oath of God.—Louise, famous holiness.—Lucy, light.—Margaret, pearl.—Martha, becoming bitter.—Mary, a tear.—Matilda, mighty battle maid.—Melanie, black.—Melissa, bee.—Mildred, mild threatener.—Muriel, myrrh.—Nathalie, Christmas child.—Nora, honor.—Octavia, eighth.—Olympia, Olympian.—Ophelia, serpent.—Paulina, little.—Philippa, lover of horses.—Phoebe, shining.—Phyllis, foliage.—Portia, of the pigs.—Priscilla, ancient.—Rachel, ewe.—Rebecca, noosed cord.—Regina, queen.—Rhoda, Rosalie, Rose.—Rita, pearl.—Rosaling, famed serpent.—Rosamond, famed protection.—Salome, peaceful.—Sarah, princess.—Selina, moon.—Seraphine, seraph.—Sophia, wisdom.—Stephanie, crown.—Susan, lily.—Sylvia, wood maiden.—Tabitha, gazelle.—Tamar, palm.—Thomazine, twin.—Theresa, corn bearer.—Ulrica, noble ruler.—Urania, heavenly.—Ursula, bear.—Valeria, healthy.—Veronica, true picture.—Victoria, conqueror.—Viola, violet.—Virginia, flourishing.—Wilhelmina, helmet of resolution.—Yolande, violet.—Zenobia, father's ornament.—Zillah, shadow.

In Paris, red boots, coming up on the ankle, with high, narrow heels, and buttoned at the sides, are all the mode.

FRENCH PUBLIC WORKS.—During the last seventeen years, under the régime of the late Prefect of the Seine, the city of Paris has expended on extraordinary works alone no less than two milliards one hundred and seventeen and a half millions of francs, or £84,700,000 sterling, of which amount upwards of half, or £43,800,000, has been raised by loan, the remainder having been defrayed out of the ordinary municipal revenues. The interest on the sum borrowed is upwards of 46,000,000 francs, besides which another 10,500,000 is applied towards a sinking fund, and a further 10,000,000 by way of annuities. It results from this, remarks M. Jannau-Roland, who has furnished the foregoing figures to the *Patrie*, that the rebuilding of Paris by Baron Haussmann, so far as it has gone, has imposed upon the city an annual burthen of 67,000,000 francs, to be reduced to 57,000,000 when the annuities have all fallen in; but, on the other hand, the annual revenue during the progress of these works has gradually risen until it has attained the high figure of 171,000,000 francs, which is not only sufficient to provide for all these charges, but leaves 37,000,000 francs (about a million and a half sterling) at the disposal of the municipality for new undertakings.

THE MALE FLIRT.—Our man flirt does not want for recreation. The country supplies him at the start of every season. It is his agreeable, self-imposed duty to attach himself to a young girl as much as possible, and imply that he is madly fond of her. The elegant fellow does it with his tongue in his cheek all the time. He never commits himself, to use a favorite phrase. That is, he has never the courage of his intention when his intention is bad, and he is equally brave when his inclinations are good. If women only knew the utter worthlessness of some of the nincompoops they occasionally favor! I have seen a male flirt—his soft brains rendered softer by the heat of wine—pull out your tender, and indeed harmless note, Miss Laura, for the criticism of a circle of mean snobs, of his own quality, in a Club smoking room. The pleasant dandies are bartering confidences and testimonials, you perceive; and are so far honest as to keep back nothing. Well, these fellows are vulgar exceptions, if you will; but let me warn ladies addicted even to "harmless flirtations," against trusting MS. with a common "yours sincerely" to the end of it, to male friends.—*The Gentleman's Magazine*.

LADIES, BEWARE?—How astonished some of our fashionable ladies would be if a certain law passed in 1770, just a century ago, were re-enacted! "Any person who shall, by means of rouge or of blanc, of perfumes, of essences, of artificial teeth, of false hair, of cotton *Esquagnol*," whatever that may be—of steel stays, of hoops—"the crinoline of 1770"—of high-heeled shoes, or of false hips—"can such things be?"—entice any of his Majesty's male subjects into marriage, shall be prosecuted for sorcery, and the marriage shall be declared null and void." What glorious help this law would give to the Divorce Court! What lady is there, that is a lady, whose armoury of charms, however simple, does not comprise some of the above-named formidable weapons?—*Daily Telegraph, London, Eng., 8th February, 1870*.

"BLUE LAWS."—At Dunstable, Mass., in 1651, dancing at weddings was forbidden; in 1660 William Walker was imprisoned one month, for courting a maid without the leave of her parents; in 1665, because there "is manifest pride appearing in our streets," the wearing of long hair or periwigs, and superfluous ribbons, was forbidden; also, men were forbidden to "keep Christmas as it was a Popish custom." In 1677, a "cage" was erected near the meeting house for the confinement of Sabbath breakers, and John Atherton, a soldier, was fined 40 shillings for wetting a piece of an old hat to put into his shoes, which chafed his feet while marching.

There is an odd story in *Nature* about an island lying in the route of ships between Australia and China. Though called "Pleasant Island," it had, previous to 1865, on account of the conduct of the natives, a very bad reputation. In that year a ship captain visited the place, bringing away a favourable report of it, as well as news that there was an Englishman among the native population. Three years later Captain Hall, of the barque "Glenisle," passed that way, and was boarded by canoes from the island and a couple of whale-boats. Two Englishmen came with the skids, one of whom said he had been twenty-eight years on the island, and introduced his younger companion, eighteen years old, as his son. They told Captain Hall that they tried to visit all ships passing within easy distance, and were anxious it should be known that they could supply crews with pigs and cocoa-nut oil. The captain advised them to cultivate potatoes, and they gave him an advertisement to put in the colonial papers. Unfortunately this document has baffled all attempts to decipher it, from the faulty writing. Readers of Browning will perhaps ask whether this is not news of Waring. The island is stated to be nine miles across, and twenty-two miles in circumference.

A pretty story is told of a ten year old youngster in Boston, who took a jocosé direction of his uncle, to ask Prince Arthur to tea, for sober earnest. The Uncle had forgotten all about it, when an hour after Johnny came running in and declared the prince was "real nice, though they tried to prevent my seeing him. We had a long talk, and I told him all about mother, where we live and ever so much." "So you saw him, did you? well, what did he say? Is he coming to tea?" "No, he can't come; he's only got time to attend the funeral, and he's real sorry." It turned out, on inquiry, that Johnny had presented himself to the usher of the prince's apartments, was put off, but would not be rebuffed. He wanted to see the prince and "must," for his uncle had sent him. His persistence finally gained him admittance; he was presented and humoured, the interview was mutually agreeable and the lad had the longest and liveliest chat with Arthur of any person in Massachusetts.

A sub-committee of a school committee were examining a class in a proprietary school. One of the members undertook to sharpen up their wits by propounding the following question:—"If I had a mince pie, and gave two-twelfths to John, two-twelfths to Isaac, two-twelfths to Harry, and should keep half the pie for myself, what would there be left?" There was a profound study among the boys, but finally one lad held up his hand as a signal that he was ready to answer. "Well, sir, what would there be left? Speak up loud, so that all can hear," said the committeeman. "The plate!" shouted the hopeful fellow. The committeeman turned red in the face, while the other members roared aloud. The boy was excused from answering any more questions.