

POPULAR SCIENCE NOTES.

Popular rails are made in Russia. They are longer than ordinary rails, and said to have greater adhesiveness in contact with locomotive wheels.

Haller kept papers perfumed with a single grain of ambergris for forty years and there was no appreciable diminution in the strength of the odor. The weight of a molecule of camphor sensible to the smell was computed by Bordenave to weight one 2, 262, 584, 000th of a grain.

Somebody says in a London paper that the highest velocity yet imparted to a cannon ball is 1, 626 feet per second, equal to a mile in 3.2 seconds. The velocity of the earth of the equator, due to rotation on its axis, is 1,000 miles per hour, or a mile in 3.6 seconds; thus, if a cannon ball were fired due west and could maintain its initial velocity, it would beat the sun in its apparent journey around the earth.

At a recent meeting of the Academy of Sciences, Capt. Moessard exhibited a photographic apparatus adapted to photogrammetric purposes. It enables panoramic views to be taken, which, completed by some simple topographical work provide a representation of a district on a map. The obstacles to obtaining panoramic views, owing to the necessity of emptying glass plates, and several of them has been met by Capt. Moessard's cylindrograph, which is not bulky, and very light. The sensitive plates are necessarily of a flexible substance, carried by a curved frame. The positive proofs can be arranged in a cylindrical frame, and so viewed as to present a panoramic view. This contrivance is called a cylindroscope.

A device has been brought forward for protecting water pipes against freezing, the arrangement being based upon the fact that water in motion will remain liquid at a lower temperature than water at rest. One end of copper rod, placed outside of the building is secured to a bracket, and the other end is attached to one arm of a weighted elbow lever; to the other arm of the lever is secured a rod, which passes into the building and operates a valve in the water pipe. By means of turn buckles, the length of the copper rod can be adjusted so that before the temperature reaches the point at which there would be danger of the water in the pipes freezing, the valve will be opened to allow a flow of water; beyond this point the valve opening will increase and the flow become more rapid as the cold becomes more intense, and as the temperature rises the valve is closed. This plan sets up a current in the pipes, which replaces the water as it grows cold by the warmer water from the main. Whether the valve be opened or closed, the service pipes are always in working order.

THE BODY AND ITS HEALTH.

Simple Cure for Cold Feet.—The following remedy for cold feet is recommended for sedentary sufferers, as well as policemen, car-drivers and others who are exposed to the cold: "All that is necessary is to stand erect and very gradually lift one's self up upon the tips of the toes, so as to pull all the tendons of the foot at full strain. This is not to hop or jump up and down, but simply to rise—the slower the better—upon tiptoe, and to remain standing on the point of the toes as long as possible, then gradually coming to the natural position. Repeat this several times, and, by the amount of work the tips of the toes are made to do in sustaining the body's weight, a sufficient and lively circulation is set up. A heavy pair of woollen stockings drawn over thin cotton ones is also a recommendation for keeping the feet warm.

Advice to Stooped Shouldered People.—A stooping figure is not only a familiar expression of weakness or old age, but it is, when caused by careless habits, a direct cause of contracted chest and defective breathing. Unless you rid yourself of this crook while at school, you will probably go bent to your grave. There is one good way to cure it: Shoulder braces will not help. One needs not an artificial substitute, but some means to develop the muscles whose duty is to hold the head and shoulders erect. I know of but one bull's eye shot. It is to carry a weight on the head. A sheepskin or other strong bag filled with twenty or thirty pounds of sand is good weight. When engaged in your morning studies, either before or after breakfast, put the bag of sand on your head, hold your head erect, draw your chin close to your neck, and walk slowly about the room, coming back if you please, every minute or two to your book, or carrying the book as you walk. The muscles whose place it is to hold the head and shoulders erect are hit, not with scattering shot, but with a

rifle ball. The bones of the spine and the intervertebral substance will soon accommodate themselves to the new attitude. One year of daily practice with the big, half an hour morning and evening, will give you a noble carriage, without interfering a moment with your studies.

Advice to Dyspeptics.—Dyspeptics should avoid anything which they (not others) cannot digest. There are so many causes for and forms of dyspepsia that it is impossible to prescribe one and the same diet for all. Nothing is more disagreeable or useless than to be cautioned against eating this or that, because your neighbor "So-and-So" cannot eat such things. If we would all study the nature and digestion of food, and remember that air and exercise are as essential as food in promoting good health, we could easily decide upon the diet best suited to our individual needs. The diabetic should abstain from sugar and anything which is converted into sugar in digesting, such as all starchy foods fine wheat flour, rice, macaroni, tapioca, liver, potatoes, beans, carrots, turnips, parsnips, peas, beans, very old cheese, sweet omelets, custards, jellies, starchy nuts and sweet sauces. He may eat oysters, all kinds of fish, meat, poultry and game, soups without any starchy thickening lettuce, cucumbers, watercresses, dandelions, young onions, cold slaw, olives, cauliflower, spinach, cabbage, string beans, the fruit of all kinds without sugar-cream butter, milk sparingly, gluten, flour, oily nuts freely salted, eggs, coffee and cocoa. The corpulent should abstain from fat as well as sugar and starch. A diet of whole meat, milk, vegetables, fruit and lean meat will produce only a normal amount of fatness; while an excess of sweets, acids, spices and shortening keeps the system in an unhealthy condition. Those who can digest fine flour, pastry, sugar and fats become loaded with fat, but are neither strong nor vigorous. Thin people with weak digestion should also avoid such food; for thin people are often kept fat. If they cannot digest the starch, butter and fine flour, the system is kept in a feverish, dyspeptic state; they become nervous or go into consumption for no other reason than that the life is burned out by a diet that only feeds the fire and does not renew the tissues.

LIVESTOCK.

Where hay is scarce cut corn stocks with some grain will keep horses in good working condition. But the grain should not be corn, as this with corn stalks makes a food too carbonaceous, and deficient in strength-giving elements of food.

Excessive feeding of new oats will cause scours in horses even if they do not induce more dangerous colics. Old horses especially should be fed only ground feed, as whole new oats pass through them doing little or no good.

As an argument in favor of the soiling system, an English breeder says that cows will always search after the sweetest spots in a grass field, thereby trying long distances at the expense of much valuable time that should be devoted to rumination and rest. When confined, however, they are liberally supplied with everything they require.

THE POULTRY YARD.

Drop a little common sulphate of iron into the water-vessels daily for your poultry, at this season. It will do them good old or young.

A little wheat should be spared daily for the growing chicks. Nothing will bring the pullets to early laying better than wheat. Feed generously.

Do not forget to feed the chicks plenty of ground bone, oyster shells, and an occasional feed of meat. Boil the small potatoes or other vegetables mixed with bran, adding a dash of red pepper and salt every few days. Ginger and sulphur may be fed in soft feed occasionally.

Bone meal and crushed oyster shells may be used generously in feeding fowls. Placed by themselves fowls will devour no more of this mixture than they naturally require to assist in digestion, and to help in forming the shells of eggs.

Feed the table scraps to the chickens instead of throwing them to the pigs. They are worth more to the poultry and everything that falls from the table, dry crusts, vegetable leaving, cooked meat bits, and the like, are eagerly devoured by old and young fowls.

If the attention be turned principally to the rearing of chickens for market, they must be hatched out very early to be very profitable. To do this we must make preparations the previous season, by building warm and comfortable houses, as well as procuring those varieties of fowls that can be relied upon to lay during the winter and early spring.

RETAIL MEAT MARKET.

Table listing various meats and their prices, including Beef, Pork, Mutton, and Lamb.

Table listing wholesale meat and cattle market prices for items like Milk cows, Working oxen, and Live cattle.

Table listing fish and vegetable prices, including Potatoes, Onions, and various fish species.

Table listing hay and straw prices for different types of hay and straw.

Table listing wood and coal prices, including Poplar cordwood and various grades of coal.

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Excellent Board and Rooms may be obtained in a good and central locality and at reasonable rates. Apply at 88 Carlton, near corner of York Street. nv21

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Over Any of the Railroads advertised in this paper are to be had of

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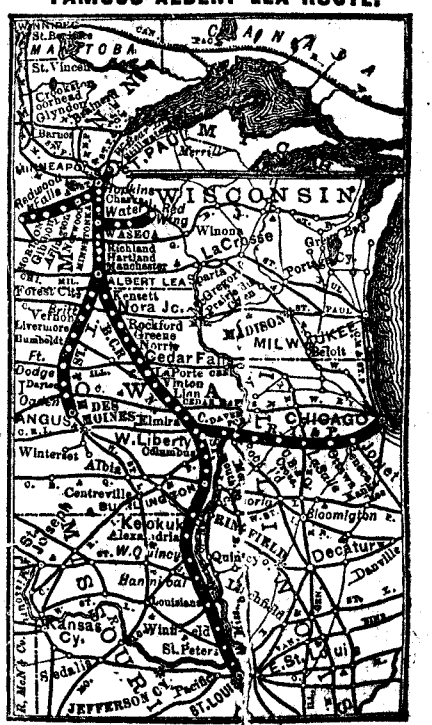
Tender for a License to cut Timber on Dominion Land in the North West Territories.

SEALED TENDERS, addressed to the undersigned and marked "Tenders for a timber berth" will be received at this office until noon on Monday, the 11th day of January next for a timber berth of fifty square miles, situated on the Nelson River, about 75 miles below the discharge thereof of Lake Winnipeg, and being partly in the Provisional District of Saskatchewan, and partly in that of Kootenay, N. W. T. Sketches showing the position approximately of this berth, together with the conditions on which it will be licensed, may be obtained at this Department, or at the Crown Timber Offices at Winnipeg and Prince Albert. A. M. BURGES, Deputy of the Minister of the Interior, Department of the Interior, Ottawa, Dec. 5th, 1885.

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