

## COMMERCIAL SUMMARY.

Forty-one paper mill companies of the United States have combined under the name of the Columbia Straw Paper Company, with the main office in Chicago.

During the year 1892, the shipments of nickel ore and matte from the Sudbury mines to the United States, as reported by the American Consul at Prescott, amounted to 3,325,711 lbs., valued at \$203,748.23.

Recently, the Birmingham Chamber of Commerce passed a resolution in favor of preferential trade with Canada. It is true the majority was not a heavy one, the vote standing 76 to 61, but even straws show the direction of the mind.

A Winnipeg dispatch says: "F. W. Thompson, manager of the Ogilvie Milling company, has been in Duluth and Minneapolis for several days past inspecting improved milling machinery with a view to making extensive additions to the plant of the Winnipeg mill."

Mining machinery to the value of \$61,848 was imported into Canada free of duty during the fiscal year ended 30th June, 1892. Of this, \$4,630 came from Great Britain and \$57,218 from the United States. Ontario imported, of this, \$25,821 worth and British Columbia only \$1,750.

The Spokane and Great Northern Mining Company, (foreign) has been registered with a capital of \$5,000,000, and office at 101 Yates street, Victoria. The object of the company is to do a general mining business in localities tributary to the city of Spokane and in British Columbia.

It's becoming quite a fad for the merchants who are doing the business of a large city to put only certain colored goods into their shop windows. For instance, there are clothing stores that are filling one window with only red articles, red neckties, red socks, red handkerchiefs, any article, apparently, so long as it is red.

The actual results of the operations of the Canadian Pacific railway for 1892 are officially stated as follows: Net earnings, \$8,420,317; add interest earned on deposits and loan, \$203,603—\$8,623,920. Deducting the fixed charges occurred during the year, \$5,102,018, the surplus was \$3,521,932. From this, two supplementary dividends of one per cent. each were made, \$1,330,000, leaving a surplus carried forward of \$2,221,932. Surplus of previous years, \$1,701,599, total surplus carried forward, \$6,023,531.

Jas. Robertson, the extensive hardware dealer, has issued the following circular: "The business carried on by me in Montreal and St. John, New Brunswick, in my own name, and in Toronto and Winnipeg under the style of James Robertson & Co., will, on and after the 1st of January, be continued under the name of 'The James Robertson Co'y, Ltd.' I having transferred all my interest in the said business to this company, retaining in my own right the greater part of the capital stock."

A pavement of granulated cork and bitumen, pressed into blocks, is being introduced in London, it is said, with

satisfactory results. It is elastic, furnishes a free foothold for horses and greatly diminishes the noise of traffic. India-rubber pavements have proved so satisfactory where they have been tried experimentally in Germany that the use of this material is to be largely extended there. The latter material has also proved satisfactory in an experimental section at St. Pancras station, London.

Of the 40,000 drug stores in the United States and Canada, it is a safe, but low estimate to say that fully three-quarters of them carry cigars, not to include other forms of tobacco, as well as smokers' articles in general, says the *Pharmaceutical Era*. The tobacco trade has its own retail distributing stores in great number, yet it is true that the drug stores constitute nearly, if not quite, as important an outlet, while the quality of cigars carried by druggists is of a higher general character. The stranger seeks a choice cigar at the drug store; the high class trade is there supplied.

The estimated expenditures of the bankrupt province of Quebec for the fiscal year ending 30th June, 1893, amount to \$5,170,680, or \$111,480 less than those of the previous year. Public instruction, immigration and colonization, civil government, legislation and public debt are much the same as formerly, but, in public works, charities, administration of justice and miscellaneous services, something like \$170,000 have been cut off. Any one who knows anything about that province, however, will not hesitate to say that the existing condition of things renders it essential that there should be still more economy and retrenchment.

A trial is about to be made in Glasgow with vitrified bricks in the place of stone and wood hitherto used for street paving purposes. Brick paving is common in some continental towns, but the difficulty of procuring the right kind of material for the manufacture of bricks in Scotland of a sufficient hardness and toughness has prevented that form of paving being tried for street purposes. Proper material has, it is said, now been found. It is called a clay, but is in reality a kind of hermatite ore, and requires to be quarried. It is stated that the brick blocks are durable, clean, healthful, easy to repair and comparatively noiseless, and that they are considerably cheaper than either granite or wood paving. The question of street paving is one that has long been a vexed and difficult one; and before long will have to be solved to the satisfaction of the cities of this province, whose inhabitants will doubtless await with some interest the results of the Scotch experiments which, if successful, may result in an endeavor being made here to discover some workable material of the kind referred to.

## MAPPING THE BRAIN.

All the motions and sensations of the various parts of the body are represented in the surface of the brain as on a map. Thus, there is a separate brain area necessary for sight, another for hearing, another for the motions of the fingers, and so on. Each of these areas is called a center. Four of these are especially

concerned in the use of language, and may therefore be called language centres—the auditory center, by which words are heard; the motor speech center, which excites the vocal organs in speaking; the visual center, by which written words are seen, and the writing center, which guides the motion of the hand in writing. The centers are capable of individual development by practice, and in order that each may receive its due share of cultivation it is necessary to know its relative importance in the different ways of using language.

Disease instructs us on this point by making some interesting though ruthless experiments. Inflammation, or the growth of a tumor, or the rupture or plugging of a blood vessel may destroy any of these centers, involving, of course, a loss of the corresponding function. Consequently the various defects in the use of language are the subjects of a large and very important chapter in the treatise on brain disease. So far as I am aware no practical use has been made of this knowledge outside the domain of medicine.

Yet it would be very strange if, from way, in which the use of language is lost or suffers varying degrees and kinds of impairment, we could learn nothing as to how it may best be acquired. The loss occasioned by the destruction of any language center is an indication of the defect that must result from neglecting to cultivate the same center by practice; and, as disease selects now one and now another center for attack, we learn the extent to which each is necessary in hearing, speaking, reading or writing. The auditory center receives the nervous impulses started by sound.

When it is aroused by impulses coming from the ears the sensation of sound occurs, but when it is aroused by nerve currents not from the ears, but from other parts of the brain, we have only the memory of sound. For a word to be understood the auditory center alone is not sufficient. The sound must awaken the memories of other sensations. The word "orange" for instance, has a meaning because the auditory center, when the word is heard, arouses in the visual center the memory of the color and form of an orange, in the centers touch, temperature, posture and muscular sense the memory of the sensations which occur when the fruit is grasped by the hand; in the centers for smell and taste the memory of its peculiar odor, flavor and tartness. These sensations are said to be associated with the sound of the word, and together with it they constitute the concept "orange." The nerve currents passing from one center to another are called association impulses. If we have often eaten oranges and at the same time heard the name the auditory center, whenever it perceives or remembers the sound, will send vigorous impulses to the other centers and the idea will be vivid. But if our experience of oranges has been very limited, or if instead of the correct name a merely similar sound has been heard, the association impulses will be sent slowly, feebly, and uncertainly, so that the idea will be vague.—*Popular Science Monthly*.