

dollars would be sufficient to put it in a position to be offered to manufacturers. Above the town there are three excellent powers aggregating 800 h.p., which could also be developed at a small outlay. The *Brant Review* believes that valuable assistance would be given any manufacturer who would help in the development of these privileges by locating in Paris, and calls on the Board of Trade for that town to be "up and doing," and not let the present boom of prosperity pass by.

The English correspondent of the *American Manufacturer* (Pittsburgh), writes that "an unsatisfactory appearance is beginning to mark the British iron trade. Orders are neither arriving, nor is it clear when they will arrive in numbers enough to inspirit the trade. Purchases in advance of requirement, he says, it is more and more manifest are to be credited with the considerable activity in buying which was lately noticeable, and which led to makers reporting that they were well sold forward for much time to come. The market is being over-supplied, with the result that prices are perceptibly weakening. Efforts to avert the mischief are being devised, branches in which the manufacturers are numerous attempting restrictive operations."

The following suggestive paragraph from the *Toronto World* forcibly illustrates the evils that must accrue from a prolonged fight between capital and labor. The carpenters' strike was very much like a triangular duel. In this instance, the city, the bosses, and the carpenters are all materially injured:

A *World* reporter was credibly informed yesterday that there were a large number of carpenters out of work in this city. While the recent strike was in progress, all tenders for buildings were withdrawn, and contracts about to be closed were held over pending a settlement. The cost of building has increased fully 25 per cent., and many people contemplating building this season have abandoned the idea. Work is therefore scarce, and the prospects of an increased demand for carpenters are not encouraging.

There seems to be no limit to the purposes for which both glass and paper may be used. We may expect that in time to come both these materials will largely take the place of timber in buildings when the latter commodity becomes scarcer than it is at present. We have noticed in previous issues that paper has been successfully used for car wheels and flour barrels, and now we learn from our Pittsburgh correspondent that textile fabrics, bobbins, and shingles are being made of glass in that city. The glass bobbins are said to be specially suitable for textile manufactures, as they are more durable than wooden bobbins. The glass shingles are made in various colors, and we can well believe the statement that they make a handsome and fire-proof roof. By referring to our Pittsburgh letter on another page, a description of the glass-weaving process may be read.

The *Montreal Gazette* summarizes the statements regarding Montreal industries made by Mr. M. H. Gault, M.P., in his speech during the Budget debate. In the factories named by him the number of hands employed had increased between 1878 and 1881 from 6,920 to 13,048, and the weekly wages

paid had increased from \$40,544.55 to \$90,321.31; an increase in employees of 6,128, and in weekly wages of \$49,676.86. In 1878, the average annual earnings of each person employed, including the young women in the cotton, tobacco, and other factories, and apprentices, was \$304.67. In 1881, the annual earnings of each person so employed had increased to \$359.63, an increase which represents a substantial improvement in the condition of the working classes. The above is a remarkable statement, and testifies to the benefit the country is deriving from the manufacturing boom.

In Philadelphia the propulsion of street cars by the expansion of steel springs is having its first trial. The motor consists of six springs coiled upon a cylinder, each spring being made of a flat bar of steel, 300 ft. long, 6 in. wide, and $\frac{1}{4}$ in. thick, and are so delicately and uniformly tempered by a new process that their power becomes tremendous. When first coiled, their diameter is 18 ft.; they are then tempered and wound up till the diameter is only 7 $\frac{1}{2}$ ft. In this condition, they are placed upon the motor truck and the appliances adjusted. A stationary engine at the terminus of the road then winds the springs to a diameter of 40 in., and it has been demonstrated that the power of the expansion of the six springs from 40 in. to 7 $\frac{1}{2}$ ft. in diameter is sufficient to drive an ordinary street-car full of people five miles on any track in Philadelphia. A check prevents the car from running at a greater speed than nine miles an hour, and the whole apparatus is so completely under the control of the brakeman, that he can use the power of all of them at once, or limit the power to one, or on going down a steep grade can shut them all off. As Chicago street cars are being driven by means of endless cables, and in the Old World electricity is being experimented with at different places with the same end in view, it is not improbable that the horse-car in Canadian cities will soon give way to modern improvements.

ANILINE DYES.

An interesting report of U. S. Consul Mason, at Basle, Switzerland, appears in the January report of the State Department. It affords some valuable information as to the character of the dyes upon which the great textile industries in this country depend, and it shows the folly of continuing to rely exclusively upon the supply of these necessary products on such remote sources when they are derived by an easy process of manufacture from our own crude materials. Both aniline and alizarin—the indigo and madder dyes as heretofore known—are now derived by skilful analysis from coal tar. The raw material is almost a waste product, and we export it at a low valuation in the form of the incomplete distillation called anthracene and benzole, to return to us under high-sounding names, the highest priced dyes of the world.

Anthracene is made in Pennsylvania in considerable quantities by ready distillation from coal tar, and exported in a liquid state—about 1,000 barrels yearly—at a valuation not far from \$50 per barrel. In 1878-9 the export was \$51,304; in 1879-80, \$50,700, and in 1880-81, \$38,650. The importation of alizarin in 1880-81 was valued at \$449,244, all free of duty, and of aniline dyes \$84,608, free of duty, \$1,361,474 paying duty. None of the true indigo or madder dyes are included in this aggregate; they reached \$1,541,664 for indigo, and \$41,864 for madder, the latter being almost entirely superseded by the artificial alizarin prepared from coal tar, as described by Consul Mason. The report shows the growth of this country in dyes in a strong light, but the German dye factories are far greater than those of Basle.—*Textile Record*.