eight hours without any attention or labor of any sort, and they are then replenished with warps in the incredibly short time of fifteen minutes, one girl being all that is employed to do this part of the work, and that all being completed during the day time. The machinery is thus left working, and producing a most beautiful fabric entirely by itself from half-past five in the evening until half-past six the following morning; and during the time it has been running it has fully realised the expectations of the inventor. The goods produced by this new invention are improved in appearance, and what was sold before at two pounds five shillings and sixpence, is now selling at twenty-four shillings. A visit to the mills is thus described:—It was very curious that on approaching the buildings we could hear the rumble of machinery, and yet every part of the mills, with the exception of the cashier's room, which was lighted by a paraffine lamp, was in total darkness. We could not detect a single inch of gas-piping, for none is required. The machines can work as well in the dark as in the light, because they do not require any human attention. At present they are working on what we may term forty-eight hour "shifts," but they can be set at half-past five o'clock on Monday morning, and they will run until twelve o'clock on the following Saturday night, without stopping (except for cleaning), and the work they will turn out is enormous. A portion of the machinery was manufacturing diamond yarn, which can be used for antimacassars, ladies' shawls, gentlemen's cuffs, neckties, and all sorts of fancy Berlin wool work, and also for scarfs. It can also be used in the Bradford trade, as yarn for piece goods, and in the Denby Dale and Huddersfield woollen districts for scarfs, waistcoats and fancy trouserings, and the yarn can be sold irrespective of weaving it. There is a special class of yarn made, suitable for ladies' shawls. It is produced with a combination of colours, all of which are distinct, and may be made with any kind of material. A silk dress, no matter if it is made of the finest material Paris can produce, may be matched by the trimmings which were being manufactured at this mill without the assistance of man, woman or child. The combination of colours which is displayed in the different styles is really wonderful. The single threads of silk which are used are so fine as to produce 20,000 yards to the ounce, and they may be so increased in thickness as to make 100 yards to the ounce, thus bringing them within the reach of every yarn that is made. Another article which the machines are producin is called the Alexandra diamond cord trimming, which has a beautiful appearance, and is perfect in arrangement. This may be used for trimming dresses, jackets, mantles, opera cloaks, bonnets, hats, and also for embroidery on cushions, table-cloths, gentlemen's smoking caps, and all fancy articles of those descriptions. It can also be made up for dress-suspenders, fan-holders, and we saw a large number of fancy necklets which had been formed in a most artistic manner from this material. Necklets that, apparently, were worth two or three shillings each, were made and fitted with lockets complete for a third of the price. Another material which is being produced is a diamond yarn, which can be used for all kinds of woven, plaited, or knitted fabrics. The diamond yarn and the Alexandra diamond cord are made by a new machine recently invented. The materials may be used for trimming ladies' dresses, or for embroidering scarfs. The owner has for a long time been engaged in making silk cord, but, by the aid of his new machinery, he can supply one hundred times more than he could before, and the larger quantity costs less than the smaller did in manufacturing. The goods are thereby produced so cheaply that they can now find a good market in Paris, where they could not be sold a few weeks ago. Irrespective of the high tariffs charged by the French Government on such goods, they can now be sold in that country at a large profit.

With reference to the manufacture of yarns it may be stated that one girl, who is paid at the rate of 14s. per week, can produce £1000 worth of these goods in six days. In fact, the quantity does not in any way form an item of labor. The combination of colors in the silk trimmings for ladies' dresses or skirts is not only beautiful but wonderful. In width the trimming varies from ½ inch to 9 inches, and in manufacturing it one girl can produce £100 worth in a week, whilst in an ordinary weaving shed she could not make £5 worth in the same period. The inventor declares that when he first began to make this class of goods he paid as much as £100 per week in wages, but with his new machinery he pays scarcely anything, and he now makes four times the variety, and commands a much larger trade. He is sanguine that the application of the cords and the yarns for trimming and other purposes will make the trade a hundred times larger than it was formerly, and he believes that in a brief period he will be doing an extensive business in the American and French markets. There is also to be brought out for winter wear special designs for manufacturing the productions of the above machine for ladies' skirtings. On entering the manufacturing shed it was quite dark, and a mysterious feeling came over one when in the midst of machines in full work and without assistance. Presently a wax candle was lighted, and we could then realize the extent of the work which was being executed. By the same process as the diamond cord manufacture already described, any description of yarn can be manufactured into cords of various kinds at a cost of less than ⅛ per lb., and with the least possible amount of waste imaginable. One girl will make 3000 lbs. weight of these cords in a week, either for the shipping or the home trade. No matter what may be the quantity of silk diamond cords or yarns that may be ordered in a day, they can be made in three or four thousand combinations, and delivered on the same day. Silk spools, containing all shades of colors, are pegged and ready for the machines, and they are so arranged that they can be instantly engaged in the process of manufacture. In the shed we found thirteen cord and yarn machines in full work, and double that quantity are being made on the new plan to follow in their wake. In one day a girl can prepare warps sufficient to supply the machines for 48 hours, during which time they do not require any attention. As we have already remarked, they can be arranged to run for a whole week if necessary. The machinery is driven by a high-pressure engine, and also by endless hands. The engine room and boiler house are entirely distinct from the mill. There is no connection whatever between them—not even a door. It is certainly marvellous that so much work can be obtained from an invention which does away with the cost of labor, and may be said to be everlastingly industrious.

There is no doubt that the invention is a great commercial success, as it has been running now for more than two months without a hitch or failure. It is probable that the principle will be applicable to other departments of industry. Visitors to our factories and workshops, observe that the machinery is becoming more automatic every year. This is well seen in the perfected machinery employed in the sewing silk factory of Messrs. Belding, Paul & Co., in this city. There can be little doubt that the success of the machinery described above will give a great impulse to invention, and it is probable that developments of the automatic principle will soon be heard from in other directions. It behooves our Canadian manufacturers to look to it that they fall not behind in the industrial race.