

Its mills at Hull are situate close to the base of their supplies and enjoy the advantage of magnificent water power. Paper making is an industry to which Canada is naturally adapted, and were such raw materials as our manufacturers have to use made free of duty, there is no good reason why the manufacturing of paper in this country should not grow to immense dimensions."

Now, as to this duty on chemicals, it may be mentioned for the information of the editorial writer on the St. Thomas Journal, that no such duty is collected. The Customs tariff of 1894, section 493, being part of schedule B free goods reads: "Acids used for medicinal, chemical or manufacturing purposes, not specially provided for in this act." Pulp makers under this section pay no duty on chemicals used in their mills. One would hardly have expected the St. Thomas Journal to make such a blunder.

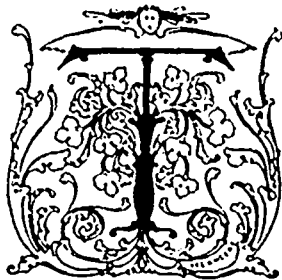
The criticism thus falls to the ground, although there is a little hint that PRINTER AND PUBLISHER is inconsistent, being "free trade" at one time, and "protectionist" at another. This journal is a trade journal, not a political paper, and hence has had no occasion to declare itself as either "protectionist" or "free trade." Moreover, it does not approve of papers, persons or governments who adhere blindly to so-called principles

simply because they are principles. The situation of the pulp industry was viewed from all sides. Its past, its future and its present were considered. The favorable and unfavorable circumstances which surrounded that industry were reviewed and stated. The conclusion reached by this process was that so long as the U. S. Government imposed an import duty of \$2.50 per ton on wood pulp and \$6 and \$7 on chemical pulp, so long would it be necessary for the Canadian pulp trade to decline. The decline, however, it was suggested, could be prevented by imposing an export duty on pulp logs to the extent of \$2.50 per ton—this duty to remain in force only as long as the U. S. duty was in existence. This latter part of the suggestion seems to have been lost on the Journal editor.

The writer is not a believer in that Christianity which stands up until its enemy knocks it down and then lies in its inglorious position. When a blow is struck, a guard must be interposed, or a blow returned. This is a vital principle of man's existence. Hence Canada's trade, for similar reasons, can be preserved only by using the same weapons as are used to destroy it.

### MACHINERY IN PRINTING.

THEODORE L. DE VINNE, NEW YORK.



HERE are philanthropists and society reformers who look upon machinery as of the devil. To Ruskin, who looks on the world from an artistic point of view, railroads, steam engines and factories are abominations; to dreamy Idealists like Bellamy; to Socialists like Marx; to Anarchists like Most,

the employment of machines for the organization of industry, in the relation of employer and employed, is the crowning outrage of the century. They say that machines take the bread out of poor men's mouths; that they reduce workmen to practical slavery and poverty.

This is a formidable indictment, but it is untrue; yet I shall not now undertake to traverse it. The subject is too vast. Allow me to confine myself briefly and imperfectly to the points that affect the printing trade. How much has machinery hurt us or our employees?

At the outset let us consider the impropriety of throwing stones by people who live in glass houses. All of us live by machines. The types and the paper we handle were made by machines; the printing presses, that give life to our art, are the most formidable of machines. It would be a sad day for us, and for compositors and pressmen, if we had to print without the aid of machinery. For the drudgery (if I can so call it) of our art is purely mechanical, and it is the putting of this drudgery on machines that enables us to do more and better work, and enables our employees to earn better wages.

At its invention, printing was stigmatized as a mechanical art. No artist of the present day despises imitations of painting by photography and lithography more heartily than did the copyists and illuminators of the fifteenth century despise books printed from types. In Nuremberg and Florence they petitioned

the authorities for the suppression or limitation of typography. They said printing was a vile art, every way inferior to copying. What was worse, it threw them out of employment; it would ruin them and destroy their guild. But printing had come to stay.

This was in the beginning. In time the printers themselves took up the cry of the copyists, and denounced every attempt at improvement that saved manual labor. Stereotyping was delayed nearly fifty years by what Moses calls the "superogatory villainy" of the printers, who battered the plates of the inventor, William Ged. Composition rollers, self-inking machines for hand-presses, machine-made paper, machine-made types, cylinder presses and rotary machines have run a similar gauntlet. I cannot tell you how many strikes and how many smashings of machines were made by the workmen, who contended that the improvements were ruining them, but there were many, especially in France and England. All this opposition was needless.

The machines and improvements are here yet, but the workmen are not ruined. Would they not have been comparatively ruined without them? What would be the condition of printing without electrotypes and machine-made paper and types and cylinder and rotary printing presses? Put back our art to old conditions and there would be but ten printers where we now have more than a hundred. Nor is this all. The ninety men kept out of the trade would be working a deal harder at more unpleasing work and for half the pay. For the ten men who did find work there would also be half pay and harder work. The offices that now pay best wages are those that have the most machinery; the offices that pay smallest wages are those that have little or no machinery. The pressman, and even the compositor, who is now earning twice and thrice the sum that was paid for harder work sixty years ago may think that his improved wages are due to his connection with a trade union, but the facts of the case are all against him. His larger wages