DEVOTED ESPECIALLY TO THE INTERESTS OF OWNERS AND OPERATORS OF

## Flour Mills, Saw Mills, Planing Mills and Iron-Working Establishments.

TORONTO, CANADA, DECEMBER, 1888.

Price, 10 Cents.

PUMPING SOLVENTS INTO BOILERS.

Nithe July number of the Locomotive was an illustrated article showing how to attach an apparatus feed pump by which solvents can be easily introduced to a boiler. While that apparatus is very complete d effective, it may sometimes be inconvenient to make

e attachment, owing to the location of We show in the illustration ig. 1) an easy and inexpensive manner faccomplishing the same result. It conists in putting a T in the supply pipe ear i's connection with the pump. A top valve is to be placed in the supply ipe a little below the T connection, and other stop valve is to be placed in the xtension of the T connection. On the  $\operatorname{nd}$  of the  ${f T}$  connection a hose is attached shich runs to the pail or tub containing he solution. When the solution is to be amped into the boiler, close the stop alve in the suction or supply pipe and open the stop valve in the extension of he I connection. The pump will then draw directly from the vessel containing When the solution has he solution. een pumped into the boiler, close the top cock in the T extension and open the suction or supply pipe, and the pump will hen take water from the general supply

Fig. 2 shows a similar attachment for use connection with an injector. The illustration is so ain that a description will hardly be necessary. In tablishments where the water is of a character to render it necessary to use a solvent, one of these attachents to the pump or injector will be found very useful. In order that the three ways of making the attachment

may be before the reader, we reproduce the illustration (Fig. 3), that was used and fully described in the July issue of the Locomotive.

## FINISH WHAT YOU BE-GIN.

HOUSANDS start well, but never finish one thing at a time. They have a dozen things on hand, and no one completed. Time is wasted on unfinished work. Always finish One thing what you begin. finished is worth a hundred half done. The completion of an undertaking yields more pleasure and more profit than dozens of plans. The man who is always planning or scheming is rarely, if ever, successful. He etten furnishes ideas for other who go persistently to work and finish what his ideas "That was my suggr-ted. any plans," we frequently some one say, but the man the carried it out was

them n who benefitted himself and others. Do not begin what you cannot finish. What you undertake to do, do, ...d reap the reward of your own ideas and skill.

my Council of the Dominion has just passed an Order-in raising the export duty on pine sawlogs from \$2 per 2000 nd measure, to \$3 per 1,000.

1888-9.

Opinions of Prominent Canadian Manufacturers on the Condition and Prospects of Trade.

ARLY in November the publisher of the MECH IN-ICAL AND MILLING NEWs addressed enquiries to

the principal machinery manufacturers in Canada with the view of placing before the readers of this journal the volume of business done by manufacturers in 1888, as compared with former years, as well as the business prospects for 1889. The replies which have been received, will be found printed below, and will no doubt be

been manufacturing in Toronto since 1883, and have each year added to our shop room, and facilities for turning out work.

We have always made a specialty of dynamos, electrical machines, and lamps for illuminating streets, stores, factories, etc., using lights of the 2000 c. p.;

taking two-thirds of a h. p. each. Quite recently, we have made a new departure, and commenced the manufacture of dynamos, to run lamps of 1000 c.p., nominal, 31/2 lamps to the h.p.

We are having good demand for these lights. They are suitable for illuminating small stores, factories, streets of cities, (especially where there are many shade trees) as they can be put closer together than the standard 2000 c.p. lamp, with greater economy, thus securing better distribution.

Late last spring we started to manufacture the incandescent dynamos, for both central station and private installation.

We are selling numbers of these machines, purchasers finding them economical of power and attendance, being perfectly self-regulating for any number of lamps in use.

Our outlook for business this fall and winter is good.

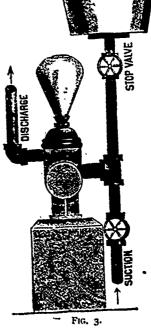
The John Doty Engine Co., Toronto, write:

CEPTICAL FOR

NT INSOLUTION

Regarding the volume of trade done by us during the past year, we would say that it is fully twenty-five per cent. more than any previous year. Prospects for the coming year are good-the mining industries, now being rapidly developed, will make a demand for mining and

refining machinery. We are now engaged in completing contracts for machinery for the following firms:-W. & J. G. Greey-15x36 Reynolds Corliss engine and boiler for Manitoba mills; two Armington & Sims electric light engines for driving electric lights in new C.P.R. passenger station in Montreal; one Armington & Sims engine for St. Clair Tunnel Co., Samia; one 200 h.p. compound condensing engine for Farrar & Co., Meaford; one marine engine for British America Packing Co., New Westminister, B.C.; one Armington & Sims engine for Troy Laundry Machine Co., Montreal; one marine engine for H. S. Scadding, Orillia; engine and boiler for R. Thompson & Co., Toronto.; engine and boiler for the Ammonia Co., Toronto; engine for Imrie & Graham, Toronto: engine for Murdoch & Stephen, Halifax, N.S.; engine and



read with careful interest: The Ball Electric Light Co., Toronto, write:

FIG. 2.

We have your favor of the 1st inst., and in reply, beg to state the following. We are very busy this fall; have been running nights for some weeks: Have done 50 per cent more business this year than last. We have

boiler for A. H. Taylor, Consecon, Ont.; engine for M. B. Burr, Bloomfield, Ont.; engine for F. G. Bresse, Quebec.

Peter Hay (Machine Knife Works;) Galt, Ont., writes: Have been as busy during 1888 as any former yearhave added new grinding shops and engine to plant, and