

hold them a sufficient length of time to melt the solder, have the other pair of tongs warmed to about the heat of a sad iron; now carefully draw the hot tongs off toward the back of the saw, having the back rest firmly against supports so that the saw cannot move edgewise; have another person follow up the hot tongs with those merely warmed; hold the grip with the warm tongs until the joints are fairly set, when nothing remains to be done more than file off the surplus solder. The above process will be found much better than cooling off the joints with water, as it is liable to harden and crack the blade. The soldering and cooling tongs should be made heavy and strong. The cooling tongs should not be used entirely cold, as the sudden chilling will harden the plate. If the process be properly performed the saw will be of the same temper at the splices as other parts.—*Industrial World.*

**FLOORS FOR FACTORIES.**—So long as wood must be used for floors and roofs there can be no such thing as fire-proof buildings. It is therefore proposed by one of the leading fire

insurance companies that all new structures, and particularly factories and shops where wood is to be used, shall be made fire-resisting or slow burning. The plan suggested is worthy of attention, because it often happens that if the fire can only be confined to the interior of the building for even a few moments, much property, and perhaps many lives, can be saved. For the floors it is proposed to use heavy timbers 30.5 centimetres by 30 centimetres (12 by 14 inches), and on these to lay matched planks 7.6 centimetres (three inches) thick. Over these planks is to be a layer of roofing-felt, or mortar, and in this mortar is to be bedded flooring boards of the usual thickness. Such a floor would burn, but so slowly that the fire would be a long time eating its way through. The aim is to gain time, for time is the one element of safety at all fires. For the roof the supporting beams are to be of the same size, and the top is to be of matched planks 7.6 centimetres thick, and covered on the outside with any form of roofing that may be desired. The ends of the beams are to pass through the outer walls, and to be finished as brackets to support the planking that is carried to the ends of the beams.—*American Manufacturer.*

DOMINION  
**Iron & Metal Company,**  
DEALERS IN  
**SCRAP IRON**  
AND  
**OLD METALS.**

YARD AND OFFICE:  
COR.  
**WELLINGTON & YORK STS.**  
Toronto, Ont.

**A. L. JOSEPH,** Superintendent.

Liberal advances made on Consignments.

**HODGE & WILLIAMS,**  
— MANUFACTURERS —  
Wholesale and Retail dealers in  
**ROOFING MATERIAL,**  
— AGENTS FOR —

**Warren's Asphalt Roofing,**

THE BEST ROOFING KNOWN.  
Also put on  
**PITCH AND GRAVEL ROOFING.**

— And deal in —

**LAMP BLACK,**

SHEATHING and CARPET PAPERS.

**4 Adelaide St. E., Toronto.**

**ECONOMY IN FUEL!**

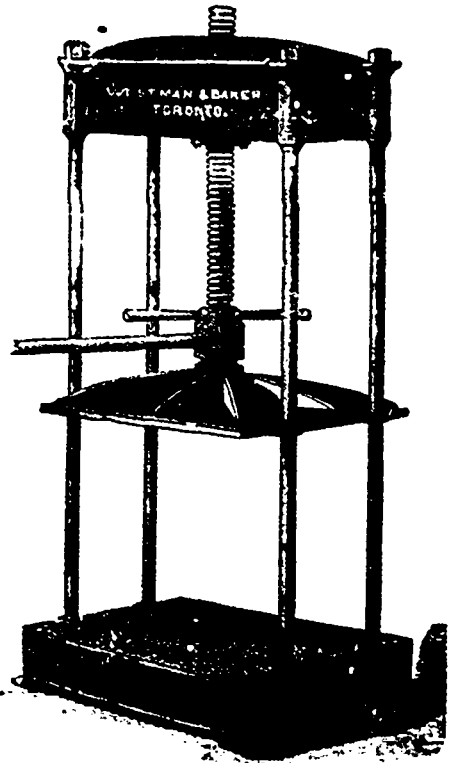
\$3.50 per day is saved in fuel and a gain of 50  
horse-power by applying  
"SMITH'S PATENT FURNACE"  
TO YOUR BOILERS.

"THE WILSON GAS PRODUCER,"  
for firing every description of Furnace and Boiler; also  
for Melting Pig-Iron, Heating Steel Ingots, Puddling,  
Re-heating, Annealing Iron, Steel, Copper and Brass  
Wire, &c., &c.

**E. C. HOPKINS,**  
148 St. James Street, Montreal,  
SOLE AGENT FOR THE DOMINION.

**WESTMAN & BAKER,**  
119 Bay Street, Toronto, Ont.

MANUFACTURERS OF PRINTING



AND BOOK-BINDING MACHINERY.

**STANDING PRESS.**  
Size of Bed, 24 1/2 x 12 1/2