



Mr. G. S. BRUSH, of the Eagle Foundry of this city, is proprietor of the Canadian Patent, and will furnish any desired information.

THE accompanying illustration is an imperfect representation of a tool both novel and unique, being the first invention of the kind for the purpose of beading or riveting the ends of boiler tubes in the tube sheets.

The tool itself consists of a revolving head 1, operated by means of a lever handle and ratchet wheel 2, in which head blocks 3 are fitted carrying steel rollers 4, turned to the shape of the bead required. The head revolves around a mandril 5, in the base of which recesses are provided for the dogs 6, which hold the mandril in place. These dogs are set out to their work by a taper pin 7, passing entirely through the mandril, and operated by a screw and nut 8. For setting the revolving head up to its work, a thread is cut on the outer end of the mandril, and a nut 9 fitted, between which and the head is a roller washer 10. All the parts above mentioned are of steel and most of them hardened; they are made to gauge, and interchangeable in their respective sizes.

In operation the tool is simple, not liable to derangement, and can be worked by any ordinary hand. It is much speedier as well as more effective than hand work, and instead of weakening the staying capacity of the tube as is inevitably the effect of hand work, this tool upsets and strengthens the tube, and more effectually stays the tube sheet. It will even close up and tighten tubes that have been split in expanding, and will tighten tubes that have worked loose much more effectively than can be done by an expanding tool.

These tools are now being manufactured and used by the Grand Trunk Railway Co., under a special license, and have received the highest approval of the Grand Trunk Engineers.

