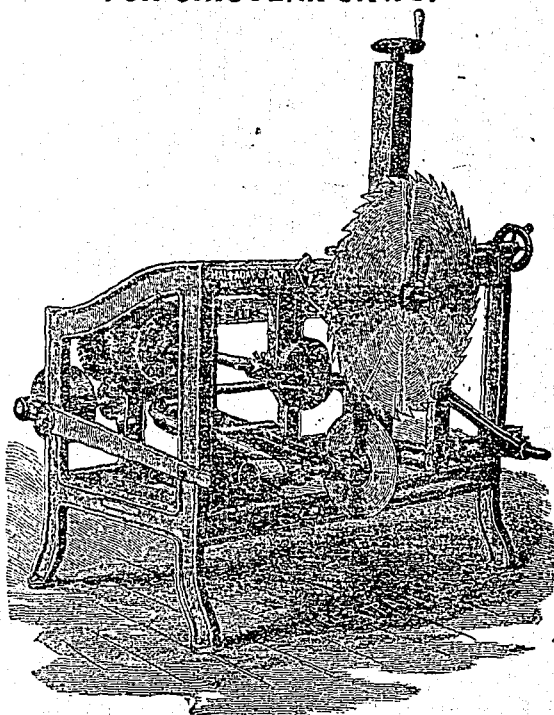


# HALLADAY'S PATENT TRIUMPH AUTOMATIC SAW SHARPENERS!

FOR CIRCULAR SAWS. FOR GANG SAWS.



In presenting the above machine to the owners of saw mills planing mills, car factories and sash, door and blind factories, we do so with the utmost confidence that we are offering the most simple and durable Automatic Saw Sharpener that is made. It is adapted to circular saws 12 in. to 6 ft. diameter, any thickness. The feed mechanism is under the control of the operator at all times when the machine is at work, and can be changed without stopping the machine. Any desired shape tooth can be made by a slight change in the cam, and the throat of the tooth can be enlarged simply by giving more or less lead to the cam. It can be thrown out of gear while setting the feed, and adjusting the saw to the emery wheel. The saw should be keyed up on centre hub, sufficient to keep it centered, and depend on the tension arms below to keep the saw firmly in place while the emery wheel is doing its work. Saws kept in order on one of these machines require no gumming, no jointing and no filing. It will feed from 11 to 16 teeth per minute.

Price delivered on cars in Oshawa, \$175.

For further particulars address, JOSEPH HALL MFG. CO., OSHAWA, ONT.

**JOSEPH HALL MFG. CO.,**

(ESTABLISHED 1851.)

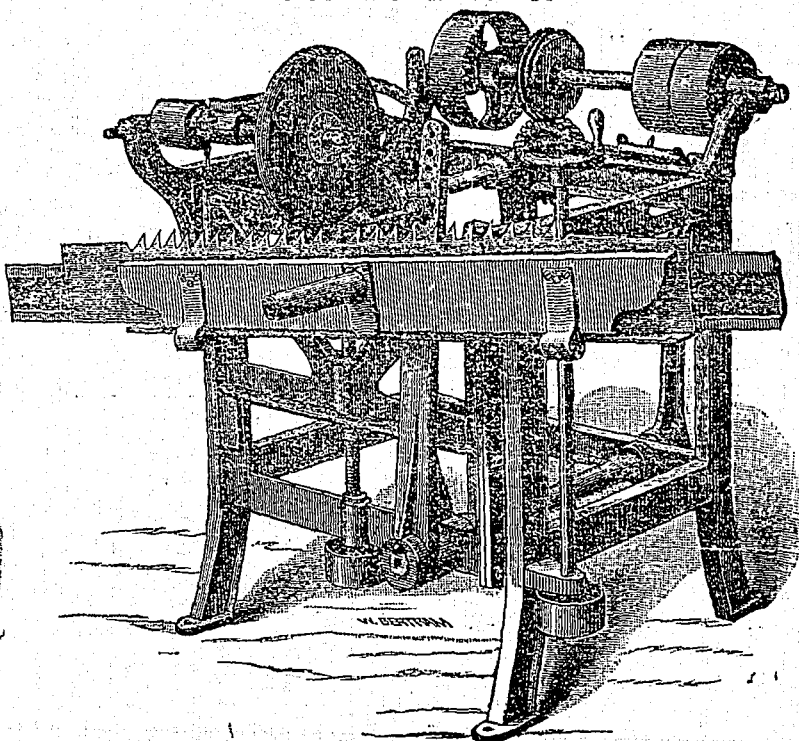
**OSHAWA, ONTARIO.**

MANUFACTURE THE CELEBRATED

**JAMES LEFFEL'S**

**Double Turbine Water Wheel,**

All Sizes of Stationary & Portable Engines  
and Boilers, Shafting, Pulleys, Hangers,  
Gearing, latest improved English  
and American Gears,

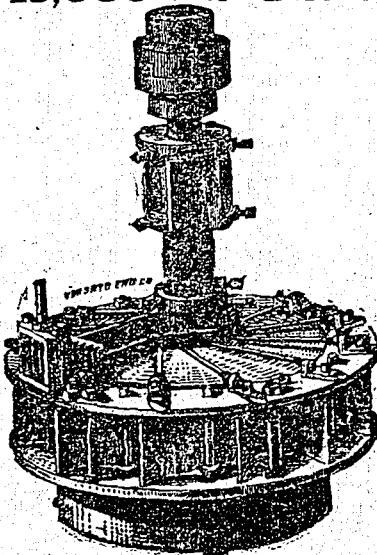


The above cut represents our Gang Saw Automatic Sharpener. This machine has been fully tested, and has developed a practical capacity for sharpening from 20 to 25 teeth per minute, making the dressing of a full set of gang saws in as quick time as any other process. The machine is simple in construction, easily understood, durable in character and thoroughly automatic and reliable in its work, leaving each tooth of each saw an exact counterpart of its fellow upon any other saw of the gang, both as regards length and depth of tooth, and the hook as well. The saw may be set in the frame to give any desired rake, while a perfect uniformity is fully assured. By means of a cam, a certain uniform motion is imparted to the emery wheel, while the same uniformity is imparted to the finger which moves the saw. The machines are well made and consequently durable.

Price, delivered on cars at Oshawa, \$175.00.

For further particulars address, JOSEPH HALL MANUFACTURING CO., OSHAWA, ONT.

**15,000 IN USE.**



**The Stearn's Circular Saw Mills,**

WITH

**FRACTIONAL HEAD BLOCKS AND  
KING OF DOCS.**

This Mill is acknowledged in the United States and Canada to be superior to all others. —also a very complete Circular Saw Mill with Iron Frame, and cheaper Head Blocks for Small Mill, Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a specialty.

For further particulars, address,

**JOSEPH HALL, Manufactur'g Co.**

**OSHAWA, ONTARIO,**