THE HINKLEY POWER SWAGING MACHINE.

The above is a cut of Hinkley's Power Gang and Mulay Saw Swage, in which every lumber manufacturer and dealer will be interested; the dealers because they get better lumber; the manufacturers because they get more of it, with the same amount of work.

The advantage is, it does the swaging on the under or cutting side of tooth, without altering hook thereof.

TO THE FILERS.

It is not claimed that this machine does away with all of the work in the filing room, or requires less skillful labor there, or benefits the proprietors in the price of wages. The proprietors are benefitted on the lumber piles, both with quality and quantity.

Take the spring set out of your saws, have the teeth all 'as near the same shape as is practical, (no practical filer needs this precaution.) Machine to run 75 strokes per minute, (belt pulley may turn either way.) Fit a piece of 1½-inch plank into the mortices made for them, at both ends of machine, letting top of plank come to top of bed-plate; have them long enough to support the end of saw as it is moved on bed-plate. Have bolts that hold back-piece loose, also cog-gear thrown out of mesh, which is operated by lever, the handle of which is seen at right of cut; next place saw on bed of machine with the top to the left, so adjusted that the swaging-roller will run in the same line with hook of tooth, observing at the same time that the point of tooth comes to the corner of adjustable die, then bring wedge up to back of saw with the big end to the left, then bring the back piece up to wedge and tighten bolts; next adjust the die to top of tooth, so that when the corner hits the point of tooth the back part of die has a clearance of about a sixteenth of an inch. The closer the die fits the top of tooth the farther back on tooth the swaging will be done; when the die is properly set will press the tooth down on top, just what the roller swages it on the bottom, thereby getting the width on the bottom without altering the neck. Always observe in setting the die that the roller will just touch as it passes the corner; next adjust the length of
stroke so that the swaging-roller will not hit the back of the tooth next to the one it is swaging; next adjust the run of swaging-roller so that the roller passes the corner of the die just enough to allow the wedge to give the required amount of feed when in operation. Should the roller come forward farther than is necessary to get the required amount of pressure on the tooth to do the swaging, there will be danger, with a new beginner, of breaking the machine or bending the saw tooth. But by altering the length of the connecting rod, that connects between the wrist and working lever, by means of the long right and left hand nut, the swaging-roller can be stopped at any point on its forward run, and thus stop it so near the corner of die that a new beginner cannot get too much feed on. If the shapes of the saw teeth are very near alike, the set and run of the machine will not want to be altered once in a month.

**OPERATION.**

The operator will stand in front of machine with left hand convenient to the starting lever, by which the machine is stopped or started at will; after starting machine put the left hand to the steel wedge that works against back of saw, with the right hold of front of saw; give just pressure enough on the wedge to move the saw forward as the swaging-roller passes off the point of tooth, thus getting a new swaging pressure as the roller moves back on to the tooth. When the tooth is sufficiently spread to suit the operator, slip back the wedge, raise the front of saw, letting the back remain on bed of machine, and move the next tooth into place. From one to two minutes time will swage a gang saw, and one swaging will hold good for ten to fifteen filings. How is this? Because the swaging is on the bottom, and the principal part of the filing is done on the top of tooth. If the filer, when refitting his saws after a run, will take his hammer and steel, or if the bottom of tooth was not the widest, he will save saws, save time, and keep the corners full; then put in spring net to keep his gauge full, and let them run before going on to the machine again, as long as the bottom of the tooth is wider than the saw plate is thick.

Use has proved that a gang of saws so fitted, will carry one quarter more feed with the same power than with any top swaging now in use.

This figure represents the bottom of tooth as the swage leaves it.

This figure represents the top of tooth as the swage leaves it. The curve as seen at the point shows how much the steel is set back along the front or cutting side. Each filing renews this sharp edge on the side as well as at the point.

This figure represents the side elevation of a tooth, showing the point tipped down by the pressure of die, leaving the hook side straight.

The Hinkley Power Swaging Machine is the invention of Mr. G. M. Hinkley, and for further particulars, circulars, etc., address G. M. Hinkley, Reliance Works, Milwaukee. We call attention of Manufacturers to Mr. Hinkley's advertisement in another department of the Wisconsin Lumberman.

Logging is a little more brisk up the Peshtigo, than was anticipated at the opening of the season. The weather is excellent now and the volume of snow just about right for active operations. There are fewer camps than last winter but in proportion to the force employed there will be fully as much work done, should the favorable weather continue.