

# Champion Drag Saw Machine.

Best Machine for the Purpose Made in Canada.

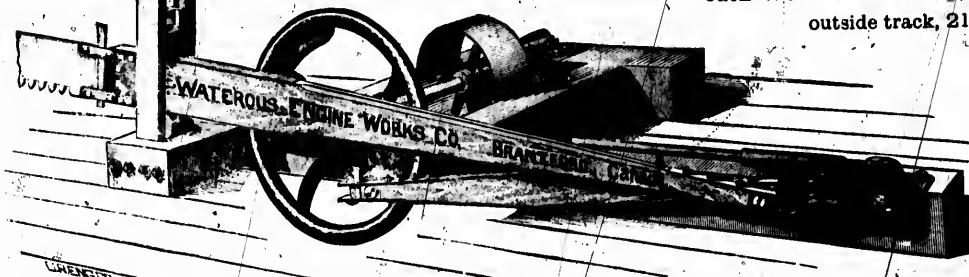
Left Hand  
Machine.

SIZE.  
14ft. by 5ft.  
without  
the  
Saw.

The frame is made of heavy timbers, well framed and bolted together.

Shear, Pitman and Standards are of ash; Bearings or boxes of Brass, and are fastened by straps and keys as shown in cut. Saw is made to feed regularly and smoothly by the action of the double wrist pin. Crank weighs about 350 pounds, has 40 inch stroke. Pulley 24x8; speed 175 revolutions; 2½ inch shaft. Pillow Blocks, 18 inches long by 8 inches wide, bolted down with 4 bolts and adjusted with keys. Weight, 1,250 lbs. Extreme width of Drag Saw and

Jack Works when set up, to outside track, 21ft.



## Jack Works for Champion Drag Saw.

For hauling logs into mill and moving them the length of shingle blocks to drag saw.

Using a 1½ inch cable chain or a 6 inch link chain, same weight, with a grab hook to fasten in end of log.

**Ewart's Giant Chain**, No. 600 with jaw special as desired, makes the best arrangement. Logs are simply rolled into a trough, and first special cutting log takes it along without further attention. Does not twist or slip, and runs on sprocket wheels.

Pulley, 20in.x8in. Speed, 250 revolutions per minute.

Weight, 1,050 exclusive of chain. Size 5ft.x5ft.

**Shingle Manufacturers Save your Timber.**

**Sapping** with an axe wastes from 25 to 30 per cent.

**Split Bolts** require several cuts to be made before a perfect shingle is cut. Nothing wasted and a perfect shingle first cut, where Knee Bolter is used.

Saw, 50 inches; pulley, 16x10 inch face; speed 800. Steel arbor, solid yoked boxes. Guard easily removed to sharpen or remove saw. Weight, 1,100 lbs.

**Carriage** covered with sheet iron. Runs on wheels, and is gibbed down to keep it on the track. Has pivot on centre which raises bolt to adjust it. Is light and strong.

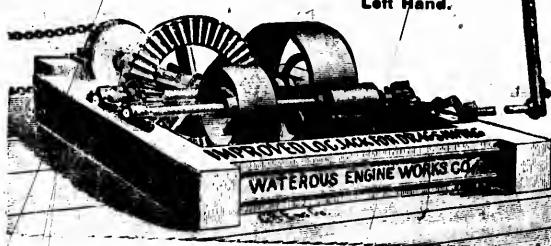
### Advantages

| Both hands are at liberty to manage blocks.  
| Feed controlled by motion of sawyer's body.  
| Will bolt & sap from 3 to 6,000 blocks per day.

THE WATEROUS ENGINE WORKS CO., LTD.

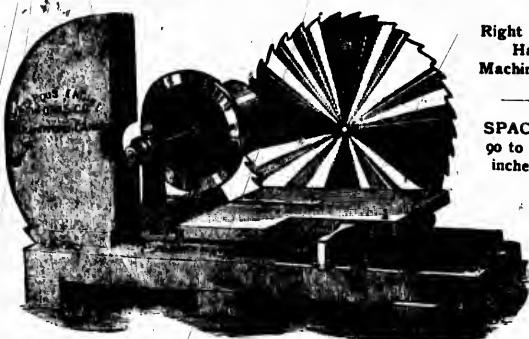
BRANTFORD, CANADA, AND ST. PAUL, MINNESOTA, U. S. A.

Left Hand.



## CHAMPION KNEE BOLTER & SAPPER

Right  
Hand  
Machine.



SPACE:  
90 to 92  
inches.