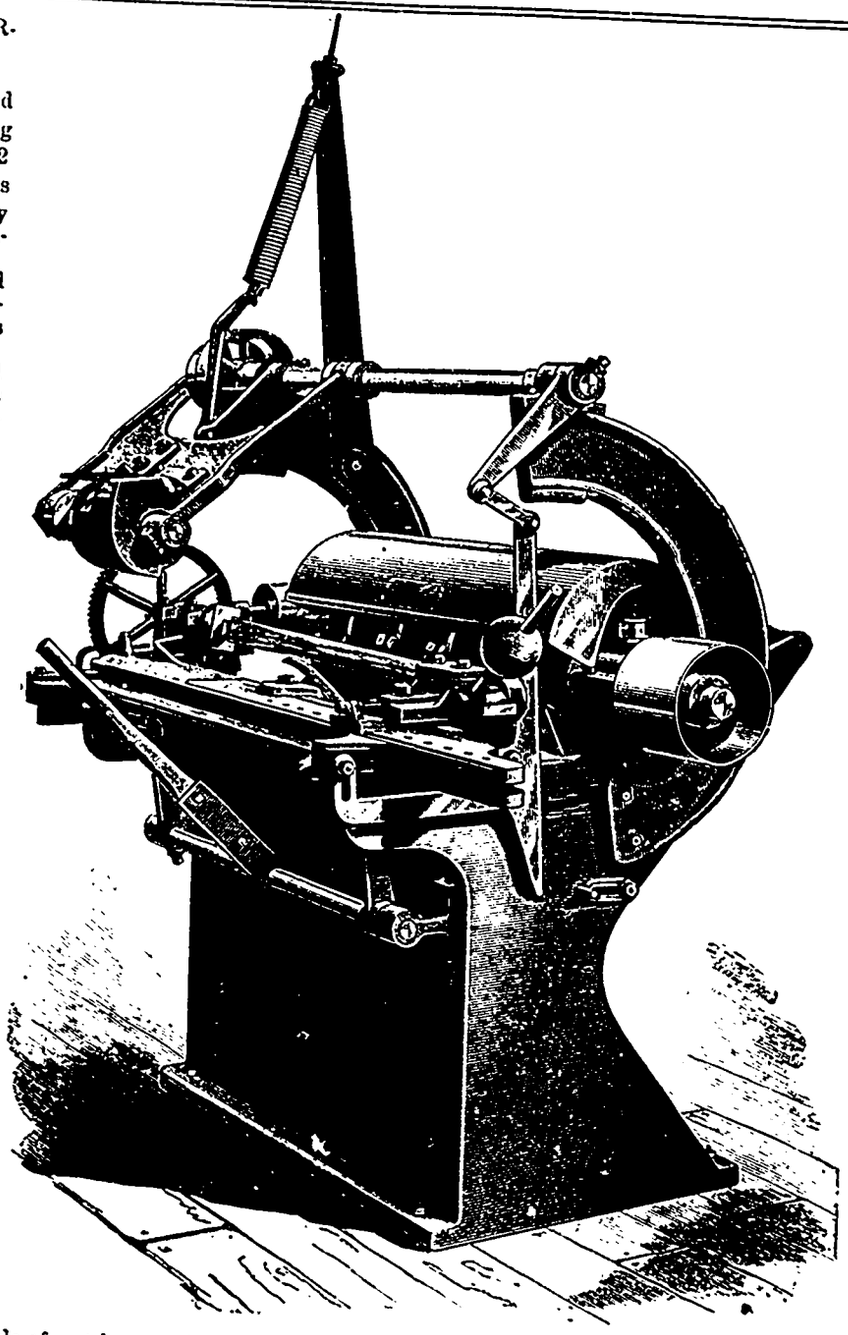
## AUTOMATIC SPOKE TURNING AND SQUARING MACHINE.



The patent 32 inch automatic spoke turning and squaring machine as described by the accompanying illustration is built in six sizes to turn spokes 32 inches, 38 inches, 42 inches, 48 inches, 52 inches and 58 inches. It is arranged for turning every variety of spokes, including common, Sarven-patent and sharp-edged.

These machines have a capacity for turning and squaring 2,500 spokes complete in ten hours, performing the work smooth so that little polishing is required.

The cutter heads are large in diameter, secured to the spindle by friction grip, no set screw points coming in contact to mar the spindle, each accurately balanced to run true without the slightest vibration.

The knives are flat shear cutting, their edges ground straight over; three knives attached to each head. The edges of knives used to form the throat or neck of spoke are shaped to suit the style of spoke desired. Two sets of throat knives for common and Sarven-patent spokes are furnished with each machine. The knives can be quickly ground and reset. A wooden straight-edge placed between the centers should be used, setting each knife so as to form a straight line.

A shield, hinged to the back end of frame, surrounds the heads, preventing any possible chance for the operator to become injured, and discharging dust and shavings at the back portion of machine.

The table is made in two parts, each planed and scraped to a perfect bearing. The one resting upon the frame slides upon angle ways provided with gibs, operated to and from the cutter heads by hand lever. Two adjusting screws, one at each end underneath the table, working against stops attached to frame, are used for regulating the diameter of spokes, thus one sized cam is used for turning several sized spokes of the same shape. The tables are coupled together at tail center end by a steel pin in one of the several holes which extend through both tables. As the cam revolves against the upright shoe attached to lower table, the upper table vibrates to and from the cutter-heads according to shape of cam which governs shape of spoke. By placing the pin connecting tables directly opposite tail center, the tread end of spoke will be turned round with a gradual change in shape to the throat, at which point the shape of cam and spoke agree. Placing the pin towards the right-hand end of table increases the oblong shape at tread end of spoke.

Sharp edge spokes are turned with a special attachment to turn both throat and tread ends alike, forming a straight line on sharp edge.

The tail block can be quickly adjusted to the desired distance from the head center for short or long turning; can be set in alignment with the head center or at either side, thus turning a spoke parallel or to any taper desired.

The squaring head advances and retreats from the spoke automatically, forming the square of spoke to agree with shape of cam, which is attached to spur center spindle. The squaring knives cover nine inches in length. A shield surrounds the head excepting a small space on working side.

The operation is simple, requiring no expensive help. Rived or sawed timber requires no hewing or other preparing, taken just as it comes, placed in the lathe, reduced to proper size and shape, finished complete at one and the same operation. In changing from one style of spoke to another requires but a moment's time to loosen two set screws and change the cams. These are inexpensive, made of cast iron, and can be shaped with a file to best suit the requirement.

Manufactured by the Defiance Machine Works, Defiance, Ohio, U.S.A., for whom Estate of T. T. Coleman, Seaforth, Ont., are general Canadian agents.

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The Milton Wire and Roofing Company, Milton, Ontario, is being incorporated with a capital stock of $40,000, to manufacture all sorts of metallic work, wire nails of all sizes, etc.

The Chatham (Ontario) City and Suburban Railway Company is applying for power to extend its line to Rondeau and thence to Blenheim and Charing Cross, and also to Wallaceburg and thence to Petrolea.

The South Essex Electric Railway Company is applying for an act to permit them to construct a railway from the city of Windsor, Ontario, to Sandwich, Ontario, and Amherstburg, Ontario, and to the village of Kingsville, Ontario.

A. McKinnon, of Portage la Prairie, Man., proposes building an oatmeal and barley mill on the Balkwell water power at Rapid City, Man.

The Lake of the Woods Powder Company, Toronto, is being incorporated with a capital stock of $20,000, to manufacture dynamite and other explosives.

The Laidlaw-Watson Shoe Company of London, Ontario, has been incorporated with a capital stock of $24,000.

The Hamburg Manufacturing Company, New Hamburg, Ontario, is being incorporated with a capital stock of $45,000, to manufacture agricultural implements.

The Dominion Electric Heating and Supply Company, Ottawa, is being incorporated with a capital stock of $100,000, to manufacture electric heaters, and other electrical appliances.

Wood Bros., St. George, Ont., will enlarge their flour mill the coming season. Goldie & McCulloch, Galt, have the contract for the new machinery.