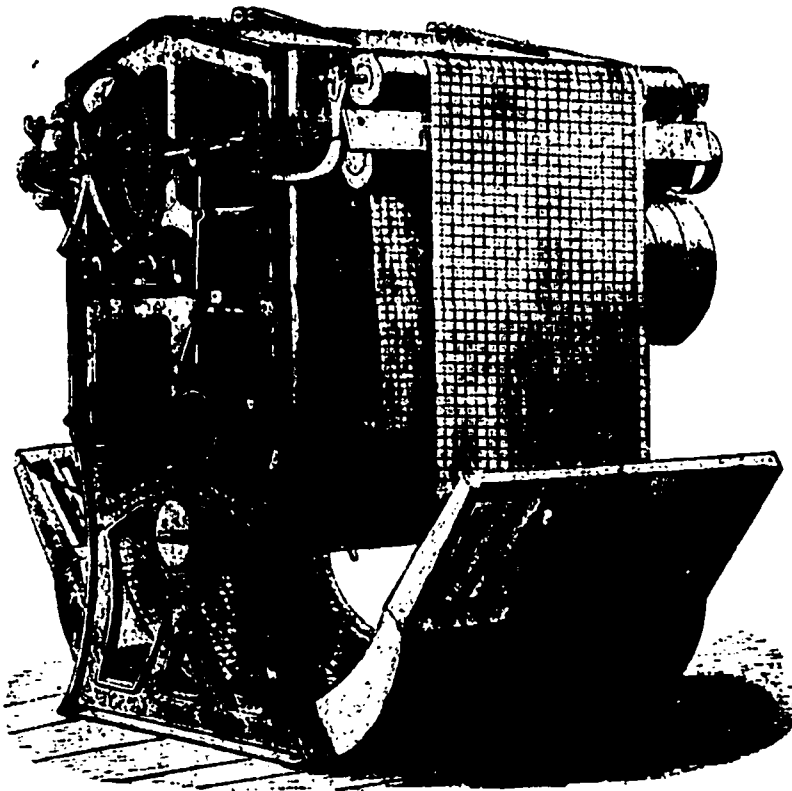


## DOUBLE-ACTING ROTARY GIG.

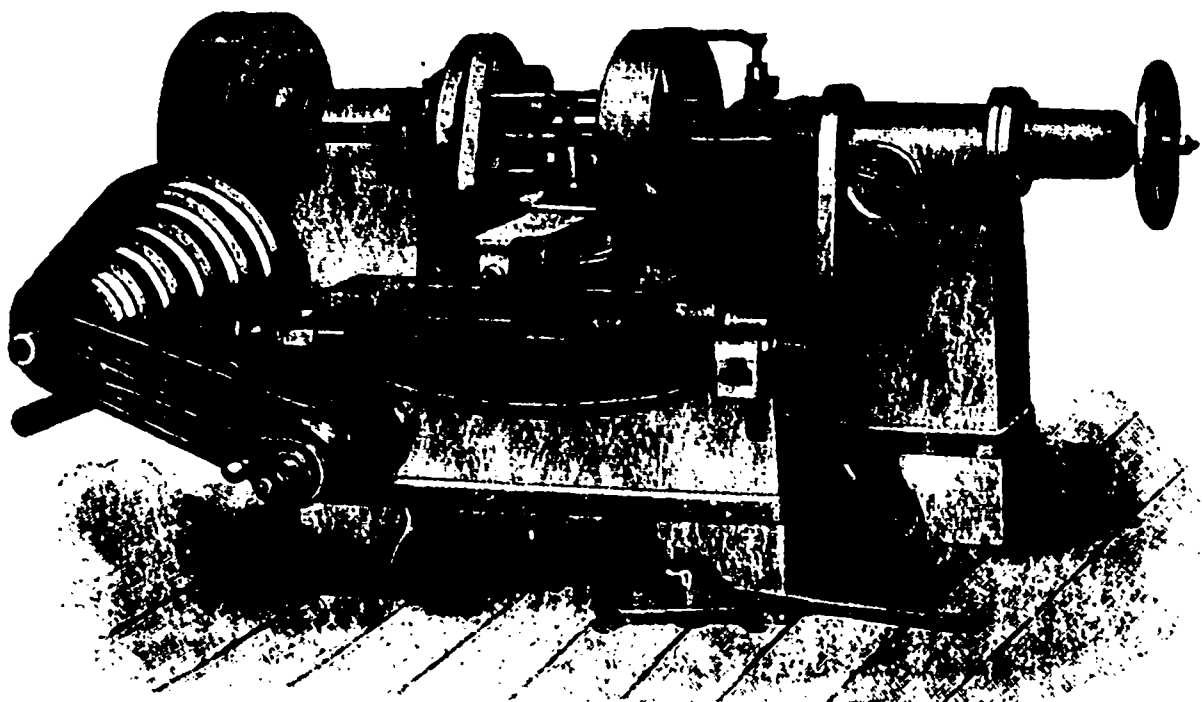
The accompanying illustration is of an improved double-acting rotary gig, manufactured by H. W. Karch, Hespeler, Ont. It is built in a thorough and substantial manner. Heavy iron frames, large shafting, wide-faced pulleys, and has two driving belts—straight and cross—so that the nap can be reversed without changing the goods. The draw rollers are driven by a system of bevel gears, so arranged



Patented September 3rd, 1886. Weight of Four Quarter Gig, 2,300 lbs.

that the goods can be run with or against the cylinder, and be kept perfectly straight and free from wrinkles with little attention on the part of the operator. The contacts of the cloth with the gig cylinder can be increased, and the tension increased or diminished to a nicety, allowing more and a different kind of work, while the nap is more thoroughly raised. By this method of construction the cylinder is completely enclosed, so that the operator may examine the cloth with its right side outwards, and is always in view of the operator, and at the same time be protected from all flocks or flyings, or from any dust that may arise by the action of the teazels upon the cloth, a most objectionable feature in gigs heretofore made. The cylinder vibrates rapidly, making it impossible to leave streaks. The cloth is run continually onward, or reversed at the same time, if desired, and is brought in contact with the teazels in two places in passing over the cylinder. It requires less attention than an up and down gig, and is so constructed that the slats can be changed rapidly. It takes no more floor space than an ordinary gig. The special advantages claimed for this machine are: Throwing no flocks or dust, and no need of the operator wearing a sponge. The cloth traverses through the machine with its right side outward, so that it is always in view of the operator, allowing more rapid, easier, and more accurate gigging. The contacts of the cloth with the cylinder can be increased, and the tension increased or diminished to a nicety, allowing more and a different kind of work, while the nap is more thoroughly raised. The goods can be run with or against the cylinder. Can be used as an up and down gig if desired. Requires less attention than other gigs. Less dangerous to the operator than other gigs. No belts to slip. Gears are enclosed and will not clog up with flocks. These machines are made any width desired. For further particulars address, H. W. Karch, Hespeler, Ont.

## JOHN BERTRAM &amp; SONS, 50-inch. Pulley Turning Machine



Visitors to the World's Columbian Exposition will find John Bertram & Sons in Machinery Hall With a first-class Display of their Latest Designed Machinists' Tools.