

Nearly all cream separators employ as part of their speed-accelerating mechanism a set of worm gearing; and the economic manufacture of the worms and worm wheels has, perhaps, formed the most serious problem. The tool that came nearest to meeting the requirements was the small Universal Miller; and this has done very well on the worms, but was hardly adapted to the economic manufacture of worm wheels without the use of special appliances. One of the latest of these is shown in the illustration. It is a worm hobbing attachment, made up especially for automatically

hobbing cream separator worm wheels, and is shown mounted on a No. 1½ Cincinnati Universal Miller, and in operation on this work.

The worm wheel is approximately 5⅞ in. diameter, has 87 teeth, and the actual milling is done in less than two minutes on each wheel. The chucking requires about a minute, so that this piece of work, which formerly required about an hour's time, is now done very much better in about three minutes.

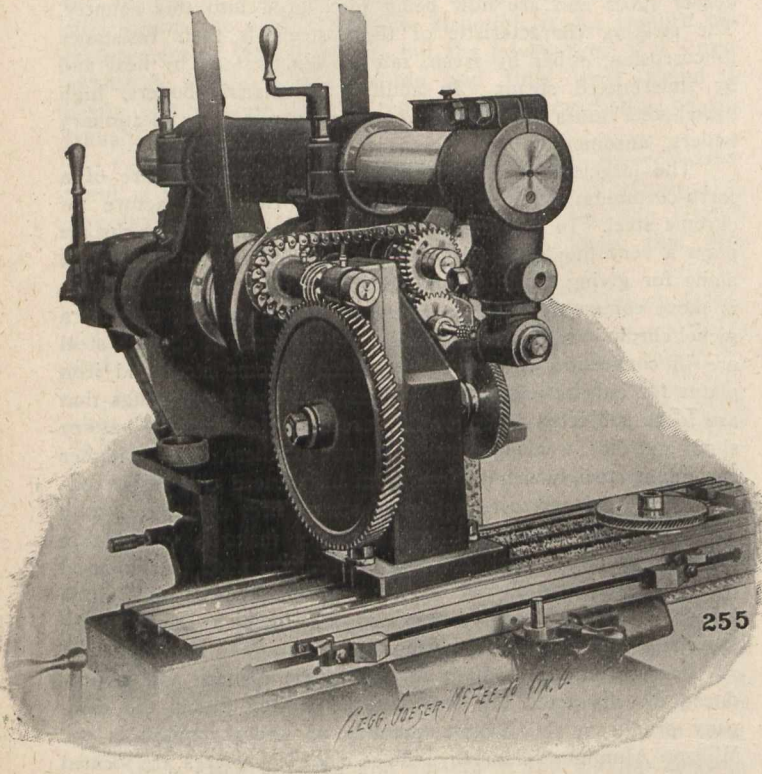
The attachment is very simple in construction, and can readily be adapted to cutting any size of worm wheels within the capacity of the miller.



Montreal is to have the first turbine power plant to be erected in Canada. The contract for the steel work, requiring 3,000 tons of steel, has been awarded to the Dominion Bridge Co., and for the boilers to Babcock & Wilcox. The cost will be \$1,000,000.

The firm of Morris, Baird & Co., Victoria, B.C., and Port Renfrew, Vancouver, has commenced to manufacture writing inks, metal polish and blueing. The company owns a deposit of tripoli of excellent quality at Port Renfrew. This material forms the basis of all the best metal polishes on the market.

The Manitoba Iron Works, Limited, of Winnipeg, have under construction in their boiler shops at Winnipeg the largest tubular boiler ever seen west of Lake Superior. It is 7 feet in diameter, 18 feet long, 9-16 of an inch thick in shell, with ⅝ in. heads, double butt stop joints, quadruple riveted with eight rows of rivets, and 106 4-inch tubes, with manhole in end under the tubes. It is guaranteed for a working pressure of 140 lbs. per square inch. It is an indication of the advance of manufacture in the West that a boiler of this size can be turned out of a Winnipeg shop, where all the work was done, including the flanging of the heads and manholes.



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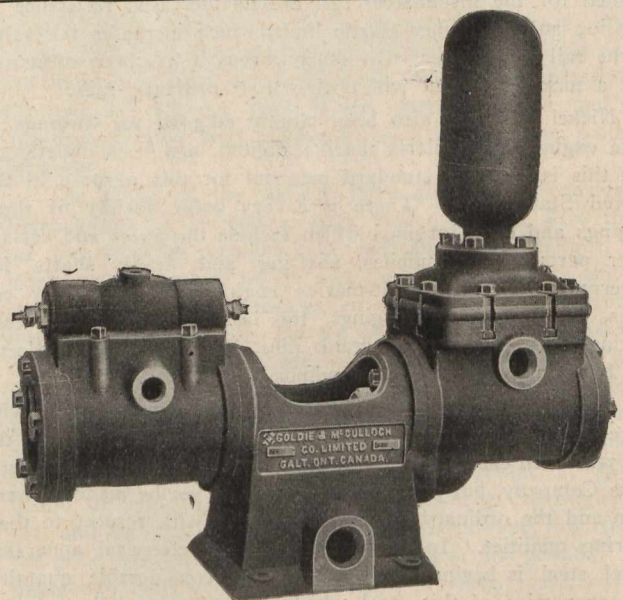
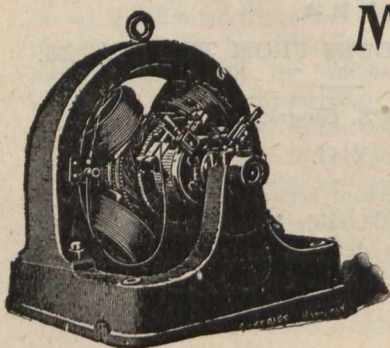
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