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OTTAWA

A typical producer of windmills for a comparatively small market, the Ottawa Manufacturing Company of Ottawa, Kansas, was incorporated in the summer of 1907 with a capitalization of fifty thousand dollars. The company is notable not only for its products but also for its policy, instituted soon after its founding of selling mills only directly to its customers. In order to produce windmills at as little cost as possible to its customers, the Ottawa Manufacturing Company employed no traveling salesmen or dealers and made no sales to any intermediate between the factory and customers. This practice, according to the maker, reduced the cost of its mills by five to thirty dollars, or a sales literature claimed, saved the buyers “enough money to buy a good tank.”

Ottawa open back-geared steel pumping windmills were on the market at least as early as 1908 and probably by late 1907. The company continued making windmills at least until 1913, but by 1916 the firm is listed in the Ottawa city directories as a mail-order house instead of a windmill manufacturer, and then by 1926 it is described as the “sales organization” for the Warner Steel Products Company, a producer of fencing, refrigerators, log-sawing equipment, and foundry goods. It subsequently disappears from business directories completely. Thus the Ottawa windmills must have been made until about the start of World War I, after which they were supplanted in the company line by other products. The mills, manufactured in six-, eight-, and ten- foot sizes, are typical back-geared steel windmills with internal crank gears. The motion of the turning wind wheel is transmitted by a long, polished steel main shaft to a pinion gear at its opposite end. The teeth in this pinion mesh with those on the inside of the overhanging lip of an internal crank gear. A steel pitman with a maple bearing soaked in oil and graphite is fastened with a steel wrist pin to the rear side of this crank gear and is connected at its upper end to the free end of a rocker arm attached at its other end to the main casting. The steel pump rod is fastened to the upper end of the pitman at the point where it meets the free end of the rocker arm.

While the bearing at the lower end of the pitman is maple, the bearings on the main shaft of the mill are poured Babbitt. This shaft passes through a long cylindrical opening through the main casting instead of having a detachable bearing cap. The spacer on the main shaft between the principal wheel hub and the main casting consists of a fiber washer sandwiched between two steel washers. Lubrication on the mill is through oil cups mounted above the main shaft and near the base of the pitman.

The wind wheel on the Ottawa is set about two inches to one side, thus causing it to turn away from increasing winds. As it does so, a governor weight on a lever connected to the vane raises, placing pressure on the wheel to return it to its normal operating position when the wind velocities subside. The sensitivity of the mill to the wind is regulated by adjusting the position of the weight on the lever. When the mill is turned off from the ground, the wheel swings to a position parallel with the vane, and a steel band brake around the internal crank gear engages, stopping the wheel from turning. This brake also engages when the mill automatically turns away from high winds in governing.

The wheel of the mill consists of curved galvanized sheet-steel blades which are attached with riveted steel wheel clips to curved bar-steel rims. Unlike those on many mills, the rims on the Ottawa do not pass through the blades. Instead, the blades are fastened to the front side of the rims. The blades also extend beyond both the inside and outside of the rims, making a quite full wheel. The sections of steel blades are bolted to two-part steel arms which in turn are bolted to the front and rear wheel spider castings.

The vane sheet consists of a five- or six-sided sheet of galvanized steel with its longitudinal edges crimped to add rigidity. This sheet is bolted to three vertical steel girts and then bolted to an angle-steel vane stem with one diagonal supporting member. The tail bears the sole ornamentation on the mill, the black stenciled words “the Ottawa Ottawa Kans.”

A major selling point for the Ottawa windmill was the fact that customers bought it direct from the manufacturer, usually remitting with their orders sufficient funds to pay the freight form the factory to their nearest town or railway station. Stressing the savings involved in eliminating intermediate sales, the manufacturer explained, “You…[save] salesman’s salary and expenses, all dealers’, agents’, jobbers’, and middle men’s profits and the percentage that both manufacturer and dealer must have to cover bad debts.” The mill, with this type of direct-to-the-buyer marketing, clearly was manufactured only for local customers. The only examples observed by the author have been within a radius of a few dozen miles from Ottawa in eastern Kansas, although undoubtedly the mills must have been purchased by some users farther away. They are readily identified in the field and are a classic example of windmills manufactured for a purely local market.